2021 Update – Growth & Diversification Plan

December 2021

Table of Contents

Section 1

EXECUTIVE SUMMARY

Executive Summary

This Update to the 2019 Region 3 Growth and Diversification Plans focuses on strategies and opportunities for the Region to pursue over the next two years.

Development of the report occurred between March 2021 and November 2021, with much of the data provided by the Virginia Department of Housing & Community Development using JobsEQ taken from the third and fourth quarters of 2020, when the COVID-19 pandemic was active. Updating any regional strategy every two years is a challenge as economic indicators may not demonstrate visible change in such a brief time, particularly in rural areas. For this update, over 50% of the timeframe was in the midst of the COVID-19 pandemic, creating an even more difficult challenge to interpret data (and in some cases, to actually access relevant data).

The Organization for Economic Cooperation and Development (OECD) wrote this in June of 2020: *"Every major crisis, such as the Coronavirus (COVID-19) pandemic, brings opportunities to rethink our systems and make them more resilient to future shocks. This is also true for rural regions. (In the short term) rural economies…provide essential goods…..and can serve as a temporary, but safer, locations for urban dwellers. Taking a longer perspective, the pandemic can change consumption and production patterns, remote working habits and forms of mobility, which may open new opportunities for sustainable growth in rural regions. Revisiting the globalization of production chains could also open new opportunities in some rural areas.*

"However, rural businesses and (citizens) have been also confronted with several pressures, including those emerging from the pandemic and associated containment measures. Demographic characteristics (a higher share of elderly population) and geographic features (larger distances to access health care centers)….hamper the ability of rural regions to respond to the pandemic. Moreover, the overall slowdown in aggregate demand has affected some primary sectors, and the expected further slow-down in trade and global demand will hit rural economies severely given their higher reliance on tradable activities."

In the preparation of this 2021 G&D Plan Update, both the data and the stakeholders' input affirmed the lack of factual knowledge about the long-term implications of the pandemic on business and citizens at a national or state level, let alone at the regional level. Complicating this research, many partner organizations were undertaking their own strategy updates at the same time as the 2021 G&D Plan update was underway. Additionally, in Region 3, several key partner organizations were in the midst of leadership changes, necessitating additional time and manpower to onboard the new leadership with knowledge about GO Virginia.

However, perhaps of equal importance is the work that the Region 3 Council has undertaken over the last five years. Through its intentional investment decisions, solid operational platforms for *talent development, sites, business scale-up, and entrepreneurship* have been established. These platforms provide the Region with powerful and adaptable mechanisms.

The empirical data analysis of this report was initiated by data from JobsEQ and complemented by additional sources such as IBISWorld, Data Axle, and TEConomy. The empirical analysis was conducted by the *Longwood Office of Community and Economic Development* during the months of May – October 2021.

The analysis related to prospect activity and sites & buildings was prepared by *Community Futures,* utilizing data sourced from the Virginia Economic Development Partnership.

Stakeholder engagement sessions were held from May – October 2021 to enable the authors to understand the "real world" context of these extraordinary years. Nearly 100 stakeholders were involved in these discussions.

Five virtual group sessions held during May 2021 covering the topics of Entrepreneurship, Business Retention and Scale-Up, Sites, and Talent. During the months of September and October 2021, additional one-on-one and group interviews were conducted, including interviews with groups such as chambers of commerce, educational institutions, community foundations, youth leaders, grant recipients, economic developers, local government managers, state agencies, innovation catalysts, and business leaders. The stakeholder sessions were conducted by *Community Futures, The RiverLink Group, and staff from the Southside Planning District Commission*.

The overall findings affirm that the Region 3 Council's previous approach to its investment strategies should be continued, particularly as it relates to talent development, business cluster scale-up, entrepreneurship and sites.

The one major change that the data recommends is expansion and broadening of the targeted industry sectors identified in the 2017 and 2019 Growth & Diversification Plans for Region 3. **Encompassing the current target sectors is still critical.** Specifically, most of the industry/employment gains within the past two years is in **advanced manufacturing** (Food Processing, Automotive, Coal/Power, Pharmaceuticals) which has a high job multiplier. Secondly, the sheer volume of employment and higher wages than the regional mean for **healthcare** warrants retention and advancement of initiatives, especially considering it is the only industry cluster expected to grow over the course of the next two years. **Business Services & IT Data** highlights the highest average wage of all target sectors and mid-tier employment, despite having the lowest Location Quotient (LQ). **High Value Natural Resource Products** occupations account for the lowest total employment for the region, but mid-tier in wage; additionally, the LQ of the sector illustrates a significantly concentrated talent and advantage of the region. For these reasons, the current target sectors should remain.

Despite classifying a robust and comprehensive viewpoint of the target sectors shown above, restricting the Region to these five sectors inherently inhibits innovative business models that are demonstrating cross-connectivity in ways that do not singularly align with specific NAICS codes. Research has demonstrated that there are shared occupations among widely different NAICS codes. There is also evidence of macroeconomic and trend data that drives cross-sector opportunities; such factors also are more affected by macroeconomic factors.

Redefining target sectors to cast a wider net would be beneficial and would necessitate "intention" to be placed around emerging opportunities. Broadening the target sectors leaves room within an umbrella industry to fund specific projects and it provides options to fund projects that benefit connected-traded sectors. For purposes of analysis, target sectors are defined by the NAICS code. The first two digits of the code designate the sector, the third designates the subsector, the fourth digit designates the industry group, the fifth digit designates the NAICS industry, and the sixth digit designates the national industry. Utilizing the subsector level (3-digit) is recommended.

The stakeholder interviews also uncovered an ardent desire for the GO Virginia Regional Council to address and support **leadership development** within the Region. Those who recommended this clearly understand that the primary purpose of the Regional Council is to invest in transformational projects that align with its Growth & Diversification Plan and investment strategy. They also view the Region 3 Council as a successful leadership organization that has laid a foundation of trust, inclusion, diversity and communication among its subregions and believe that building on this foundation is one key to the long-term success of the Region's economic health. This 2021 Update therefore includes recommendations regarding leadership engagement as a strategy for the next years.

The following sections begin with ***Section 2*** - Goals and Strategies which were identified through the empirical analysis and stakeholder engagement sessions. ***Section 3*** is a summary of the performance of the regional economy, with the full analysis shown in Appendix A (including the situational analysis of the target industry sectors and an analysis of the skills gaps for the target industry sectors). This is followed by ***Section 4*****,** presenting a summary of the findings of the analysis of sites & buildings related to prospect activity, with the full analysis shown in Appendix B. ***Section 5*** summarizes the outcomes from the 2019 Region 3 Growth & Diversification Plan and highlights the four operating platforms in which the leadership of Region 3 significantly invested, and from which future investments can be launched. Lastly, ***Section 6*** (Appendices) contains the full report for the performance of the regional economy, the sites & buildings analysis, the TEConomy 2021 Update, the VEDP listing of post-COVID subsector targets, the summary of the Virginia Chamber's Blueprint Virginia survey for Region 3, information on the 2021 Stakeholder Sessions, and the list of strategic partners as well as Council members and staff for GO Virginia Region 3.

Section 2

GOALS AND STRATEGIES

The Region 3 Growth & Diversification Plan Update for 2021 is intended to serve as a living document that creates a framework for decision-making for the Region 3 Council. It should guide the Council's investment decisions as well as its organizational sustainability and leadership development. Updating the Plan during the second year of the world-wide COVID pandemic creates a challenge for the Region 3 Council, in terms of determining the most effective strategies to achieve its goals. The goals are based on a snapshot in *this* time, and as is recognized by renowned economists and policy-makers, the implications of COVID will be felt for years to come.

> "COVID……ultimately changed all aspects of life including education, work-life balance, housing, and most drastically – the economy."
>
> The Balance, September 2021

The online publication ***The Balance*** states "the COVID-19 pandemic created a public health crisis that began in March 2020, ultimately changing all aspects of everyday life, including education, work-life balance, and most drastically, the economy. The damage was unprecedented in speed and ferocity. Most states ordered nonessential businesses to shut down in an effort to stop the spread of the disease. Supply chains were disrupted as a result. Workers were furloughed then laid off, and demand plummeted. The National Bureau of Economic Research (NBER) declared that a recession had started in early 2020."

The goals, objectives and strategies of the 2021 Growth & Diversification Plan shown in this section are based on a review of data from 2019 – 2021, as well as stakeholder input that provides a real-time view of the economy of the Region. Even while the document was being created between April 2021 and November 2021, national and state economic conditions were rapidly changing. Simultaneously, many partner agencies at the state, regional and local level were in the midst of updating their own programs. Additionally, beginning in January 2022, leadership changes occurring within the Executive and Legislative branches of the Commonwealth create an unknown in terms of policy and budget tools that will impact Region 3.

While the objectives and strategies in this document could be implemented within a two-year timeframe, the continuing impact of COVID and the changes noted above create many unknowns for the Region's economy. Thus, this Growth & Diversification Plan is instead intended to serve as an evergreen document that can be updated as conditions warrant. It is the intent of the Council staff to create a dashboard that will be reviewed at least quarterly to determine the status and make any necessary modifications.

Goals and Strategies

Region 3 ***Site Development***		**Principal Champions: RDOs, PDCs, local governments**
Goal	**Objective**	**Strategy**
Support Sustainable Regional Economic Development Systems in Eastern and Northern Sub-Region	Strengthen the capacity of the eastern and northern sub-regions' economic development organizations to be active partners for GO Virginia Region 3.	• Convene or support convening of local economic developers and county administrators and regional planning organizations • Support development of strategies and plans to sustain regional approach in the subregions
Increase the number of Business-Ready Sites to Tier Ratings 3, 4 & 5	Fund development of regionally-significant sites that support priority industry clusters to move up the Virginia Business Ready Sites Program (VBRSP) tier scale to Tier 3, 4, or 5 sites.	• Support sub-regional efforts to prioritize sites that align with Region 3 target sectors
Increase the number of Business-Ready properties (sites & buildings) for business services and health care sectors	Support identification and development of sites and buildings that align with the target sectors of business services and health.	• Support efforts to understand the real estate requirements for companies in the business services and health care sectors • Support sub-regional efforts to identify, characterize and promote properties that align with business services and health care sectors
Increase the marketability of unique properties in the Region	Support development of at least one unique real estate asset and complete assessments for at least four buildings in downtowns for adaptive reuse.	• Support efforts to identify unique real estate assets and assess for market alignment. • Support efforts to identify downtown properties and assess for market alignment.

Region 3 ***Talent Evolution***		**Principal Champions: Business, K-12, Community Colleges, Institutes**
Goal	**Objective**	**Strategy**
Monitor and advance the implementation of GO TEC	Ensure the outcomes of GO TEC are assessed, communicated and linked to employers and economic development organizations.	• Support efforts to extend the brand awareness of GO TEC within Region 3.
Support sector-based partnerships by identifying career paths for cross-walks incorporating new and emerging target sectors	Strengthen and expand non-degree programs (e.g., certifications and credentials) that enable employment pathways into new or emerging target sectors.	• Support efforts that analyze current course offerings and gaps among educational institutions with the needs of employers • Assess training gaps based on employers input • Support efforts to promote collaborative workforce development and training solutions.
Support apprenticeship model implementation	Pilot an Apprenticeship Consortium leveraging the ExperienceWorks platform.	• Support efforts to assess employer awareness and market demand for apprenticeship. • Support efforts to assess benefits of, and engage if appropriate, state and federal partners
Develop an approach to talent attraction and retention	Develop and pilot a plan of action to retain and attract talent in Region 3.	• Support efforts to identify target audiences and align communication strategies to create a regional brand for talent attraction. • Support efforts to identify barriers to talent attraction including childcare and housing. • Pilot an initiative for upskilling incumbent talent • Invest in sustainable models that introduce career pathways at the elementary school level.

Region 3 *Entrepreneurial Ecosystem*		**Principal Champions: Higher education, Innovation partners, Chambers**
Goal	**Objective**	**Strategy**
Monitor and advance the implementation of the SOVA Rise Collaborative	Ensure the outcomes of the SOVA Rise Collaborative are assessed, communicated and the organization and partners are funded through the CIT Regional Innovation Fund.	• Support efforts to extend the brand awareness of the entrepreneurial assets within Region 3.
Support programmatic emphasis on agribusiness and health care sectors	Invest in growth of the agribusiness and health sectors through market development, site development or talent development.	• Convene and connect agribusiness stakeholders to identify barriers and opportunities • Convene and connect health care stakeholders to identify barriers and opportunities
Identify and support efforts to grow emerging business sectors	Assess and support the growth of new business sectors identified through program participants and business formation data.	• Create an emerging business workgroup to Identify and analyze the development of emerging sectors that leverage existing capacities in Region 3 in talent, sites, and new business formation.
Sustain the designation of "significant" and increase the designation of "moderate" and "limited" in the entrepreneurial hubs within Region 3.	Identify barriers and build organizational capacity to improve outcomes in the entrepreneurial hubs by sub-region (measured by patents, venture capital, SBIR, SBA loans, new business formation)	• Support efforts to ensure access to capital is aligned with various stages of entrepreneurial development from pre-seed to later stage. • Support efforts to ensure access to program resources is available across the Region.

Region 3 *Leadership*		
Goal	**Objective**	**Strategy**
Anticipate the future	Identify and share resources to inform Council leadership about trends impacting Region 3 enabling Council to adapt its strategies as needed.	• Look for opportunities to engage with other Regions for investment opportunities. • Conduct a retreat/advance to hear from experts in rural economic development. • Monitor changes in state programs and leadership that may impact the economy of Region 3.
Ensure strong and sustained leadership for the Council and the Region	Identify a Council sustainability model that creates a bench of emerging leaders and funding models to support its operations.	• Proactively identify and engage citizen leaders to serve on Council committees and initiatives. • Proactively champion stable funding support from state, regional and private sources. • Assess the creation of a leadership academy
Support Sustainable Regional Economic Development Systems in Eastern and Northern Sub-Region	Strengthen the capacity of the eastern and northern sub-regions' economic development organizations to be active partners for GO Virginia Region 3.	• Convene or support convening of local economic developers and county administrators and regional planning organizations • Support development of strategies and plans to sustain regional approach in the subregions
Build regional coalitions of strategic partners	Convene and report outcomes regularly to Council of meaningful cross-region conversations with at least five stakeholder audiences to develop a depth of partners for project support.	• Convene and connect leaders of Chambers of Commerce, economic developers, Chief Administrative Officers and Chief elected officials, School Superintendents, and Young Leaders, both with their peers as well as across operational roles
Continue to build a multi-faceted communication strategy to reach diverse audiences	Increase the diversity and number of audiences within and outside the geography.	• Ensure the positive outcomes of Region 3's investments are visible. • Build awareness of new leaders to support the goals of Region 3.

Section 3

SUMMARY

PERFORMANCE OF THE REGIONAL ECONOMY

The review of data on job growth, industry sector growth, and enterprise growth reflects the initial impact of the COVID-19 pandemic. In the targeted sectors, only Health Care projects non-negative employment growth over the next two years; all other sectors reflect a decline in job growth, albeit minimal. Of the four primary sectors, only Health Care and Business Services, reflect an increase in the number of enterprises (1.4% and 3.1% respectively).

A review of the 5-year history of employment for the region demonstrates an overall employment change of -1%, representing a net negative -6,703 nominal result. An evaluation of the trend of employment growth based on 2017 Growth & Diversification Plan projections affirms that the projections were not achieved, however, the rate of decline of employment has decreased, which can be viewed as a positive. Additionally, looking at the employment change forecasted for the next two years, that attrition is expected to continue to slow, at a change of -0.7% and -1,793 nominal value overall. This result is illustrative that the region's employment is improving and trending toward breakeven and positive employment growth.

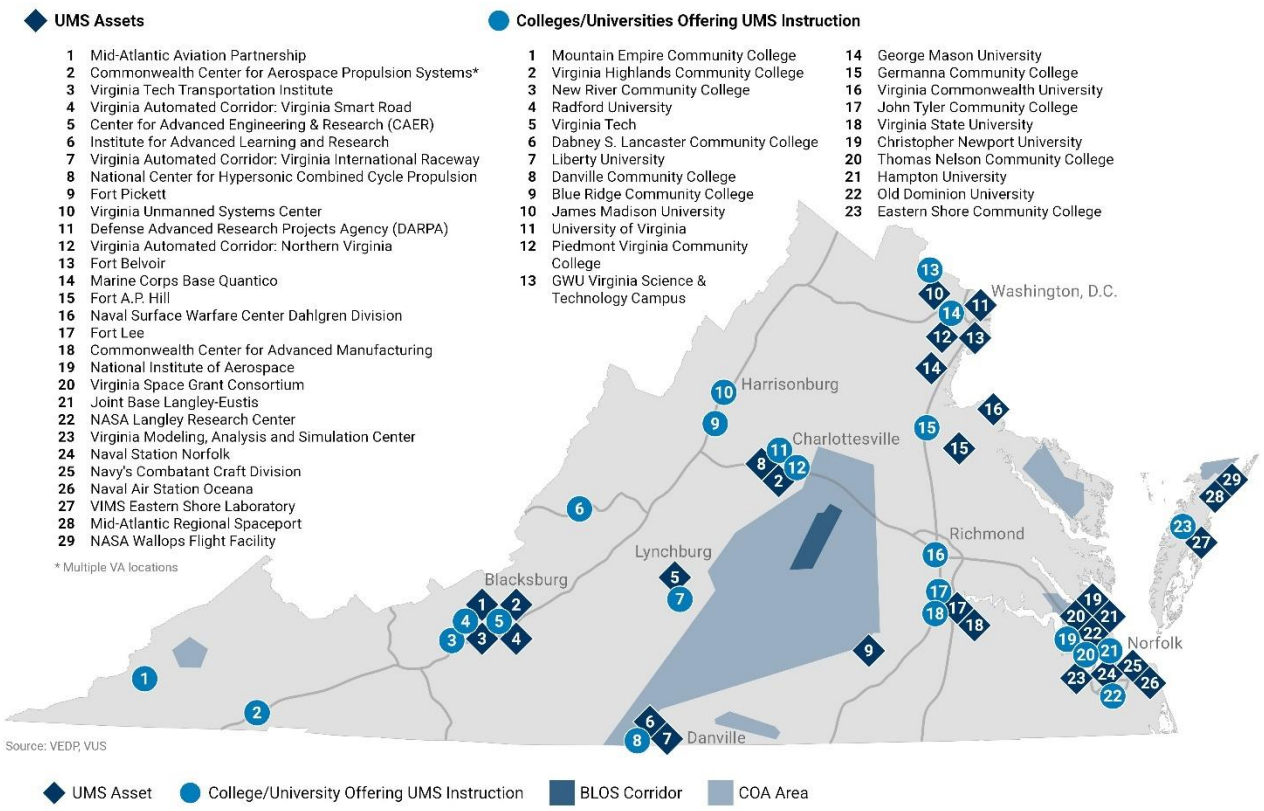
Region 3 has shown positive average annual wage increases over the course of the past three years (2017-2020). While this is an important and positive trend, data demonstrates that this is also true for the entirety of Virginia, as each of the other regions highlight positive annual growth rates. What is important to note is that Region 3 lags in growth in comparison to the other regions, falling below the average annual growth rate of regions combined.

Encompassing the current target sectors is still critical. Most of the industry/employment growth (evident by a 2021Q1 Industry Cluster analysis in JobsEQ) within the past two years is in advanced manufacturing (Food Mfg., Auto, Coal/Power, Pharma). The sheer volume of employment (largest amongst target sectors) and higher wages than the regional mean for **healthcare** warrants retention and advancement of initiatives; especially considering it's the only industry cluster within the region expected to grow over the course of the next two years. **Business Services & IT Data** highlights the highest average wage of all target sectors and mid-tier employment, despite having the lowest LQ. **High Value Natural Resource Product** occupations account for the lowest total employment for the region, but mid-tier in wage; additionally, the LQ of the sector is astounding, which illustrates a significantly concentrated talent and advantage of the region.

Redefining target sectors definitions/protocols to cast a wider net would be beneficial for the following reasons:

- More inclusive industry/occupation mix (shared occupations between ⅝ digit NAICS)
- Leaves room (not limiting scope) within an umbrella industry to fund specific projects.
- Directly affected by macroeconomic and trend data (IBISworld, JobsEQ, Teconomy)

The map below is an example of an emerging sector (Unmanned Systems) which could be incorporated into the Region 3 target sector categories. While the sector is not yet prevalent in the Region, there are assets to leverage and there are cross-sector occupations for which the Region's career pathways are aligned:



Section 4

SUMMARY

SITES & BUILDINGS ANALYSIS RELATED TO PROSPECT ACTIVITY

The analysis of business and industry sites and buildings with Virginia Economic Development (VEDP) project pipeline activity and the target industry clusters revealed that there is a directed and positive correlation with the availability of sites/buildings suitable for business expansion, to business expansion decisions. By far, manufacturing companies are the most dominant industry cluster interested in the region as reflected in the VEDP referrals and business announcement data.

The concentration of business expansion activity is in just five localities along the North Carolina border. These trends have been consistent and increasing for at least 6 ½ years.

Recent sales of prime publicly-owned commercial real estate indicate that additional investment in site development will be required if the region wishes to continue the past trends of businesses expanding within the region. If economic prosperity is to be achieved throughout the region, particularly the northern counties, the Region 3 Council needs to address the geographic distribution of business activity within region. A concerted effort to develop partnerships with the localities and development organizations will be required to facilitate investment in commercial real estate in those localities.

An analysis of the VEDP project referral and project announcement data from January 2018 through June 30, 2021, for the individual localities, subregions, and Region 3, was undertaken to determine the relationship with the 4-target industry clusters; 1) high-value agricultural products, 2) advanced manufacturing and materials, 3) healthcare and 4) information technology/data centers. The analysis yielded the following findings and conclusions:

- 84% (484) of the project referrals were manufacturing companies, 4% (23) were corporate services companies, 4% (21) were logistics/distribution related companies, 3% (17) were life science companies, and 2% (11) were information technology companies.

- Of the 164 different 6-digit NAICS Code categories in the 4 target industry clusters, only 38 categories were represented in the VEDP referral/project data and only 11 categories represented in the announcement data. There were numerous instances where a company's NAICS code was close to the target industry cluster list but was not included in the tabulation. *The Region 3 Council may wish to either expand the listing of 6-digit NAICS codes or use 4-digit NAICS codes rather than the current 6-digit NAICS codes to capture more of the VEDP project activity related to the target industry clusters.*

An analysis of 6 ½ years of VEDP project pipeline data from 2015 through June 30, 2021, for the individual localities, subregions and Region 3, was undertaken to determine if there were trends or changes in trends that should be reflected in the update to the Growth and Diversification Plan for Region 3. The analysis yielded the following findings and conclusions:

- The analysis of 6 ½ years of data from VEDP confirms there is a direct and positive correlation between the availability of; 1) prepared business and industrial sites, and 2) suitable industrial and flex buildings with VEDP prospect activity and project announcements.

- Those localities that have invested in preparing industrial sites and constructing industrial buildings have reaped the benefits. They have seen 80% or more of project recommendations/referrals from VEDP and more than 90% of announced jobs and investments from companies locating or expanding in those localities.

- The localities with a variety of prepared industrial sites and suitable industrial buildings have significant competitive advantage in locating new or expanding industries, particularly manufacturing operations, over those localities that lack these resources.

Section 5

2019 PERFORMANCE OUTCOMES

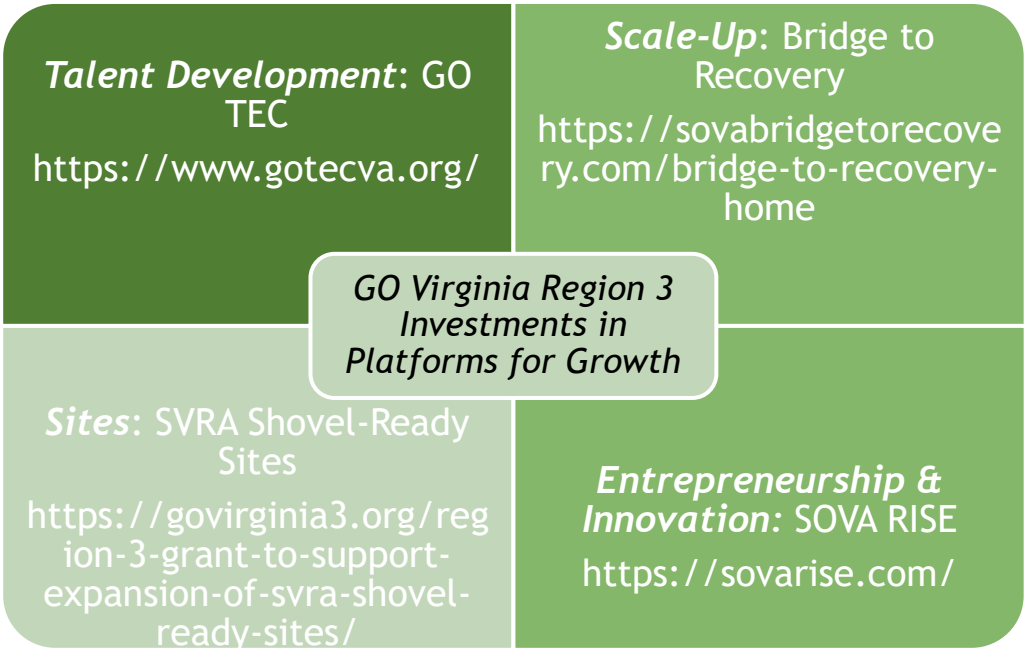
AND

REGION 3 INVESTMENT PLATFORMS

From 2017 – 2021 the Region 3 Council has deliberately encouraged and supported projects that involved a majority of its fifteen member localities; that have demonstrated capacity to manage the project; and that are aligned with the priority sectors in its Growth & Diversification Plans. As a result, the Council has invested over $9 million leveraged by at least $9 million in non-state funding and/or in-kind support.

Four of its most significant investments can be seen in the chart below. During the 2021 G&D Plan Update, stakeholders had a positive view of GO Virginia and of the Region 3 Council. Additionally, the stakeholders were aware of the programs in the chart below and generally understood that each of these programs impacted every locality in the Region (with the exception of the "SVRA Shovel-Ready sites project" which covers the western sub-region only). The gap that was uncovered in these stakeholder discussions was that many were not able to well-articulate the impact of the projects to their individual locality.

Each of these investments was intended to be strategic and transformational; however, all have been launched only in the last four years. Because each of these require time to mature, the full impact of these investments has not yet been demonstrated. The public/private leadership coalitions that have been formed represent an opportunity for leadership development and sustained connectivity. This report recommends that over the next two years, the Region 3 Council monitor and champion these investments, both in-Region and out-of-Region, demonstrating the return that will be generated.



On the following page is the listing of Goals, strategies and outcomes that were identified in the 2019 Growth & Diversification Plan.

2019 Priority Sectors	2019 Sector Strategies	Measures - 2 years	Outcomes
	Region 3 - 2019 Strategies, Measures and Outcomes as of 2021	Green = completed; Yellow = initiated; White = no outcomes	
Advanced Manufacturing **(Aerospace, Production Technology, Lighting/Electrical, Automotive, Biopharmaceutical)**			
	1) Subsector location factors validated and matched with Region 3 assets	5 subsector assessments completed	VEDP completed its post-COVID Target Industry Subsector Analysis in cooperation with SVRA and VGA
	2) Large scale prepared sites positioned effectively in the market	Supply Chain story is developed that connects Berry Hill, Commonwealth Crossing, and Heartland Park and is promoted through web-based platform	
	3) VBRSP site assessments certify sites to align with Priority Sectors	All sites over 25 acres have been VBRSP assessed and at least 10 are certified at Tier 2 level.	Through the VEDP Virginia business Ready Sites Program all publicly-held sites above 25 acres were assessed. 33 sites are at Tier 2 or higher.
	4) Technical assistance provided to improve processes and expand markets	2 companies/sub-region engaged in scale-up and supply-chain optimization	Bridge to Recovery Project has 91 total companies identified for participation of which 64 are pre-qualified. The program has received 94 requests for assistance and has approved 64 of these.

2019 Priority Sectors	2019 Sector Strategies	Measures - 2 years	Outcomes
	5) Talent Development (see Talent Development Strategies		
	6) Environmental Technologies, Autonomous Vehicles	Market validation and economic impact assessment completed	Pilot project funded and completed in Brunswick County; further implementation impacted by change in regional leadership
Business Services/IT Data Centers			
	7) Middle Mile infrastructure leveraged for sector growth	The sector stabilizes job growth and adds at least 150 new jobs. Two new companies establish presence in region.	Project application for middle mile extension by Mid-Atlantic Broadband was approved and is awaiting approval from EDA to implement
	8) Entrepreneurial program/facilities expansion (see Entrepreneurial Strategy)	SOVA Innovation Hub Co-Working Space fully utilized. Interactive lab space utilized at least monthly by students from TechSpark region	Region 3 approved its Entrepreneur & Innovation Strategy and its first project, being led by the SOVA Innovation Hub and the Longwood Office of Community & Economic Development. Program implementation is underway. Spaces within SOVA Innovation Hub are nearly at capacity.
	9) Prepared real estate options identified, assessed and promoted	2 Sites for data center use are certified. Assessment of adaptive reuse of small downtown buildings for IT and business service companies is completed	

2019 Priority Sectors	2019 Sector Strategies	Measures - 2 years	Outcomes
	10) Commonwealth Cyber Initiative Implemented	Cooperation agreement implemented between hub and higher education institutions in Region 3	
	11) Talent Development (see Talent Development Strategies)	See Talent Development Strategies	
High Value Natural Resource Products (manufactured wood products, agricultural production)			
	12) New product lines - Pellets, Thermally Modified Wood, Cross Laminated Timbers, Biochemical, etc.	Companies identified, strategy for business development implemented by economic development partners	
	13) Ag-based value-added production	Market research and validation of impact completed	Development of the Controlled Environment Agriculture project has been initiated and will be reviewed by Council in fall 2021.
	14) Employer-led apprenticeship strategy	Collaborative formed, apprentice program initiated	
	15) Talent Development (see Talent Development Strategies)	See Talent Development Strategies	
Sites and Building Strategies			

2019 Priority Sectors	2019 Sector Strategies	Measures - 2 years	Outcomes
	16) Complete VBRSP site assessments and certify sites	All sites over 25 acres have been VBRSP assessed and at least 10 are certified at Tier 2 level.	Through the VEDP Virginia business Ready Sites Program all publicly-held sites above 25 acres were assessed. 33 sites are at Tier 2 or higher.
	17) Continue investment in publicly-owned and/or unique properties	6 business sites have increased their site readiness rating. Region supports development of at least one unique asset (i.e. Foreign Affairs Security Training Center at Fort Pickett; Virginia International Raceway in Halifax; St. Paul's College in Brunswick County; IKEA Building in Pittsylvania County; Patrick County Hospital in Patrick County)	SVRA Business Ready Site project has been approved to upscale the Tier level of 11 sites in that sub-region. Brunswick County discussions about reuse of St. Paul's College initiated. IKEA building was sold to Morgan Olsen through a VEDP and locality-led project (no GV direct involvement). SEED Project in Farmville in approval process.
	18) Region has a portfolio of buildings in small downtowns ready for IT and entrepreneurial/small business company locations	Complete assessment of potential for adaptive reuse of at least 10 buildings in at least 2 small towns is completed	
Innovation and Entrepreneurship			
	19) Region-wide strategy focuses on traded sectors principally aligned with target sectors for Region	Complete a Region 3 Innovation & Ecosystem strategy	EI Strategy adopted.
	20) Ensure Region 3 connectivity with Virginia Innovation Strategy	Incorporate recommendations for connectivity into the Region 3 Innovation & Ecosystem Strategy	EI Strategy aligned with Virginia Innovation Strategy

2019 Priority Sectors	2019 Sector Strategies	Measures - 2 years	Outcomes
	21) Assess and define innovation opportunities in the health care and agribusiness sectors	Partners in health care engaged to define talent development needs and innovation through use of technology. Agribusiness partners engaged to assess new products, technology applications.	Validated in EI strategy and engagement occurring through SOVA/LOCED project.
	22) Expand Youth entrepreneurship programs in K-12 and Community Colleges	Incorporate assessment and recommendations for expansion into Regional Innovation and Ecosystem strategy	Youth entrepreneurship strategy embedded in overall EI strategy and is being implemented in SOVA/LOCED project.
	23) Leverage the Region's 23 Opportunity Zones for business development	Opportunity Zones are mapped and characterized for business development	
Talent Development and Recruitment			
	24) Support GO-TEC as primary regional platform for talent development	By September 2020: achieve metrics as noted in GO-TEC 2A Contract Addendum, including targets for career connection labs launched, branding and marketing completed, student enrollment, teacher training, industry certifications awarded, students graduated, companies announced and jobs created. Receive approval from State Board for GO-TEC 2B Contract.	GO TEC 1, 2A and 2B achieving goals as stated in project applications.

2019 Priority Sectors	2019 Sector Strategies	Measures - 2 years	Outcomes
	25) Engage and leverage the Commonwealth Cyber Initiative	Partner agreements signed. Educational institutions from all of Region's geography are represented in the agreement.	
	26) Support expansion of employer-led apprenticeship models	Apprenticeship Consortium pilot implemented and benchmarked	ExperienceWorks project approved; implementation initiated
	27) Expand opportunities for incumbent talent to increase skills in target sectors	Pilot initiative for upskilling incumbent talent is implemented and measured for results	
	28) Leverage and measure results from the Tobacco Commission's Talent Attraction Program (TAP) and from the Virginia Community College's G3 program for occupations aligned with Region 3 talent gaps.	Confirm results of strategy for occupations of: Information Security, Network and Computer Systems Analyst; Industrial and Electrical Engineers; Physical Therapists; Occupational Therapists and other occupations associated with health care and manufacturing & trades.	
	29) Change the Talent and Training perception in Region 3 using current data	GO-TEC brand is utilized in economic development messaging	GO TEC brand completed and received national award.

Section 6

APPENDICES

Appendix A

Performance of the Region 3 Economy

Prepared by the Longwood Office of Community & Economic Development

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Director of Innovation, Research and Entrepreneurship

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AND ECONOMIC DEVELOPMENT

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REGION 3 ECONOMIC PERFORMANCE AND SKILLS GAP ASSESSMENT

EXECUTIVE SUMMARY

This Economic Performance and Skills Gap Analysis, completed by the Office of Community and Economic Development at Longwood University, is provided for the Southern Virginia Region 3 Council as part of the GO Virginia Growth & Diversification Plan, for submission to the Virginia Department of Housing & Community Development. The analysis is intended to provide insight and direction to both the Regional Council and stakeholders with the region's status (historical, current, and forecasted) in:

- **Employment growth across all sectors**
- **Wage growth across all sectors**
- **Employment growth in targeted traded industry sectors**
- **Wage growth in targeted traded industry sectors**
- **New Business Formation Activity (source: TEConomy)**
- **New Business Formation in Targeted Traded Sector Industries**
- **Economic development announcements (new and expanding businesses)**
- **Situational Analysis (SWOT) of Targeted Industry Traded Sectors**
- **Identification and Recommendation of Broadening Current Targeted Sectors (incorporates existing targeted sectors)**
- **Workforce Gaps of Immediately Employable Talent in the Targeted Sectors/Clusters**

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OFFICE OF COMMUNITY AND ECONOMIC DEVELOPMENT

Employment Growth Across All Sectors

Given the 5-year history of employment for the region from JobsEQ - 2020Q3 datasets, an overall employment change of -1% occurred, representing a net negative -6,703 nominal result.

		Current			5-Year History	
NAICS	Industry	Empl	Avg Ann Wages	LQ	Empl Change	Ann %
	Total - All Industries	128,053	$36,308	1.00	-6,703	-1.0%

However, looking at the employment change forecasted for the next two years, that attrition is expected to slow, at a change of -0.7% and -1,793 nominal value overall. This result is illustrative that the region's employment is improving and trending toward breakeven and positive employment growth.

2-Year Forecast				
Total Demand	Exits	Transfers	Empl Growth	Ann % Growth
25,920	11,848	15,865	-1,793	-0.7%

Wage Growth Across All Sectors

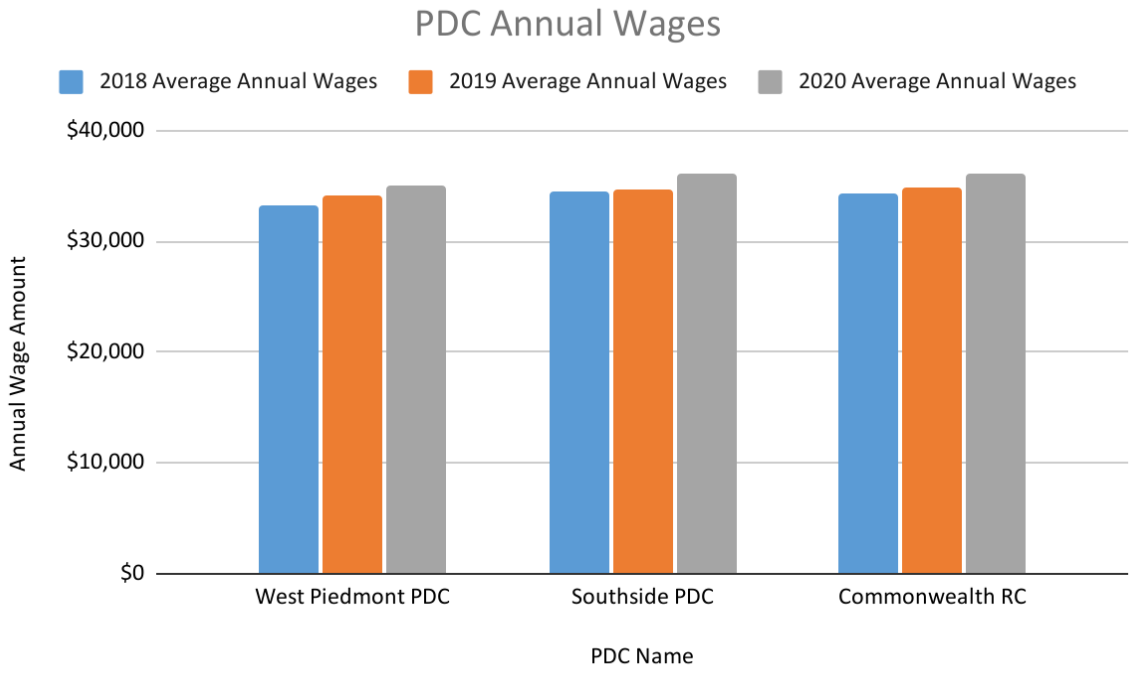
Regions	2018 Average Annual Wages1	2019 Average Annual Wages2	2020 Average Annual Wages3	Annual Growth Rate
1	$34,237	$34,823	$35,571	1.28%
2	$41,152	$42,220	$43,311	1.72%
3	$33,846	$34,516	$35,678	1.77%
4	$51,575	$52,211	$54,524	1.87%
5	$45,720	$46,624	$48,403	1.92%
6	$44,058	$45,208	$47,188	2.31%
7	$74,835	$76,732	$79,292	1.95%
8	$40,052	$41,110	$42,722	2.17%
9	$48,154	$49,130	$51,750	2.43%
Virginia	$55,526	$56,933	$59,107	2.11%

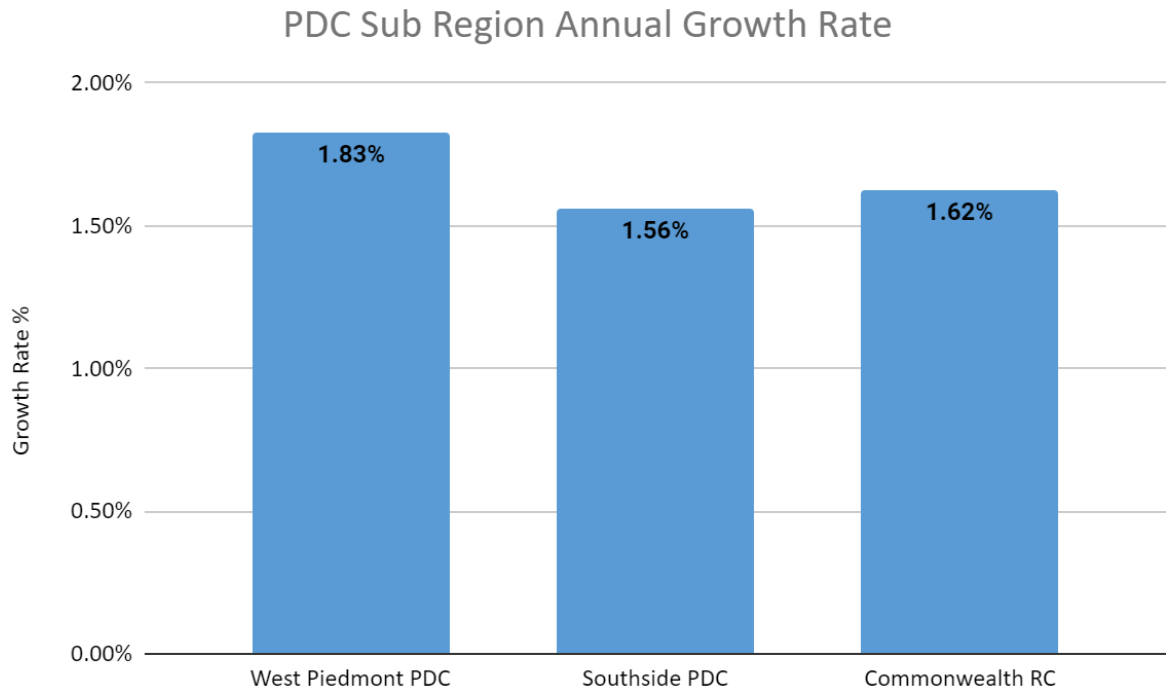
Observing the table above, GOVAR3 has shown positive average annual wage increases over the course of the past three years (2017-2020). This is also true for the entirety of Virginia, as each of the other regions highlight positive annual growth rates. However, it's important to note that Region 3 lags in growth in comparison to the other regions, falling below the average annual growth rate of regions combined.

GO Virginia Region	2020 Regional Average Annual Wage	PDC Name	2020 Sub Regional Average Annual Wages
3	$35,678	West Piedmont PDC	$35,116
		Southside PDC	$36,096
		Commonwealth RC	$36,051

Referencing the table above, the sub regional average annual wages for 2020, wages are within close proximity to each other (<0.1%) for the Southside PDC and Commonwealth RC; however, there is a 3% disparity in wages for the West Piedmont PDC region.

However, this has a limiting illustration, as that within the sub regions, The West Piedmont PDC has highlighted the greatest positive trend increase in Average Annual Wages from 2018-2020, represented in the charts below:





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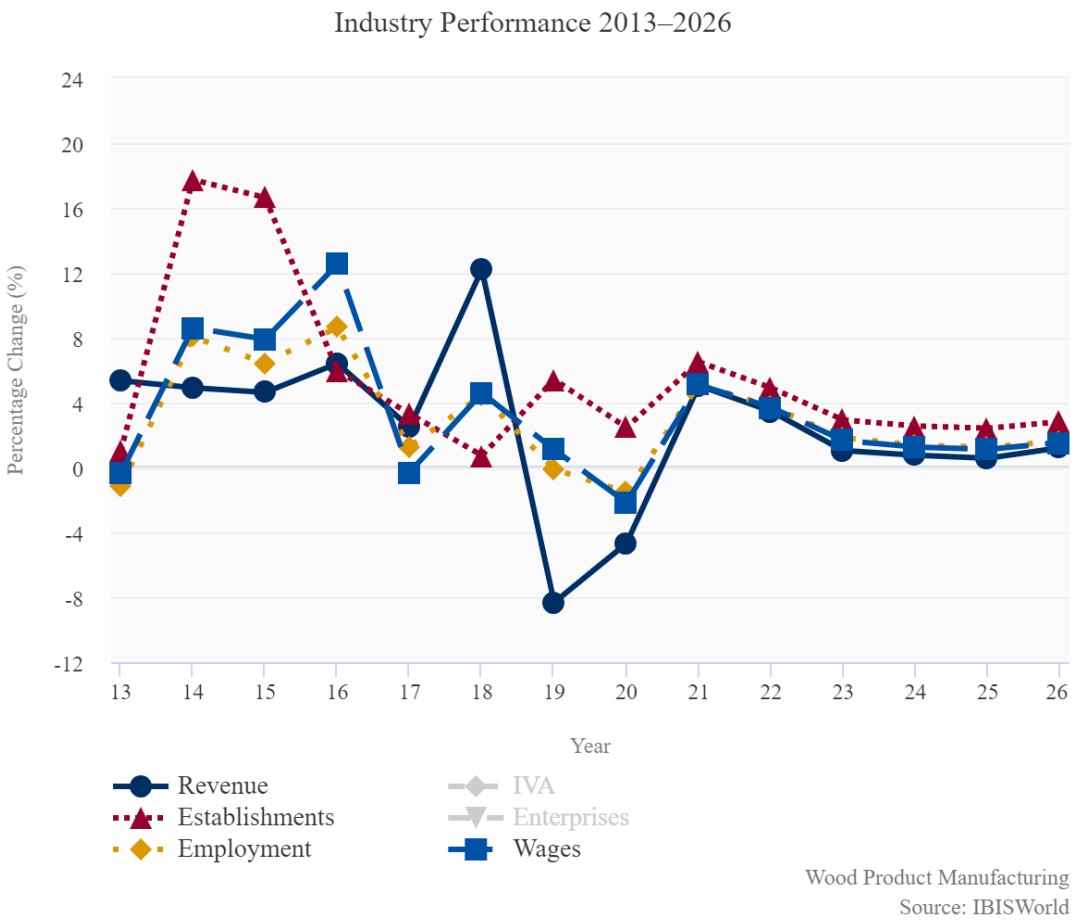
Employment Growth In Targeted Traded Industry Sectors

High Value Natural Wood Resource



IBISWorld Q32020 Executive Summary (Wood Product Manufacturing)

The Wood Product Manufacturing industry produces a diverse range of wood products, including wood ladders, cabinets, kitchenware, tool handles, toilet seats, toothpicks, wood flour and kiln-dried lumber. The construction sector is the industry's largest source of demand and as a result, operators have benefited from strong growth in housing starts for the majority of the five-year period to 2020. Further, consumer spending expanded for much of the period, boosting demand from households for other wood products.

Additionally, exports have surged due to European Union biofuel regulations, which have boosted demand for North American wood pellets. Nonetheless, industry revenue is forecast to decrease at an annualized rate of 2.4% over the past five years, totaling $6.0 billion in 2020. Revenue contraction is a direct result of the economic fallout from the COVID-19 (coronavirus) pandemic, which is anticipated to carry similar effects for industry profit.

Overall, the total number of enterprises has expanded an annualized 2.5% over the past five years, totaling 7,643 individual companies in 2020. The influx of new entrants precipitated growth in the industry workforce for much of the period. However, disruptive effects of the coronavirus pandemic are expected to generate a 16.4% decline in total employment in 2020 alone, as companies must downsize workforces to remain financially viable. As a result, the total number of industry employees has declined at an annualized rate of 1.2% over the past five years, totaling 30,746 individual workers in 2020.

Despite the expected contraction in 2020, industry revenue growth remains positive over the five years to 2025. Industry demand and general profitability is expected to accelerate, alongside broader economic recovery, generating growth in downstream market segments. However, continued competition from rubber, steel, and other substitutes is expected to intensify moving forward. Since this competition remains highest among household goods, the industry is expected to rely more heavily on its construction-related segments moving forward. Overall, industry revenue is expected to increase at an annualized rate of 3.7% over the coming five years, totaling $7.2 billion in 2025.

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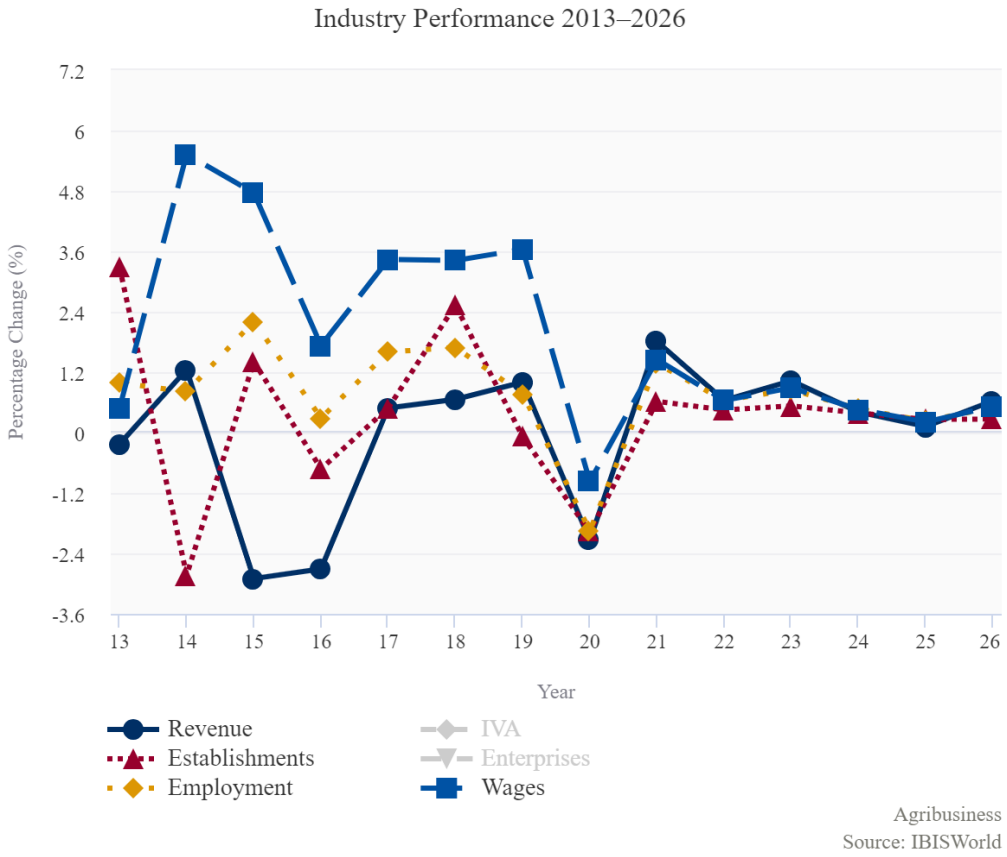
Agribusiness



Agribusiness
Source: IBISWorld

IBISWorld Q32020 Executive Summary (Agribusiness):

The Agribusiness industry is home to operations at the production, wholesale and processing levels of the food supply chain to the point of retail sale. Businesses in the industry range from meat processors and grain wholesalers to agricultural machinery manufacturers and various farmers. As the industry expands and diversifies, large multinational companies have become increasingly involved in agribusiness. However, the industry has contended with various challenges, characterized by weak and volatile agricultural prices, escalating trade tensions with China, rising levels of farm debt and instances of farm bankruptcy, all harming industry revenue and profit growth. Industry revenue has risen an annualized 0.4% to $2.7 trillion over the five years to 2021, including an increase of 1.8% in 2021 alone, as farm prices rise.

Industry performance can be attributed to weakness in agricultural prices across the Agriculture sector (IBISWorld report 11), with the agricultural price index (API) exhibiting significant volatility during the period. As a result of supply chain breakdowns caused by the shutdown and limited operation of businesses, including limited wholesale driver capacity and processing plant capacity, due to efforts to contain the COVID-19 (coronavirus), industry farmers were shut out of price growth that occurred downstream

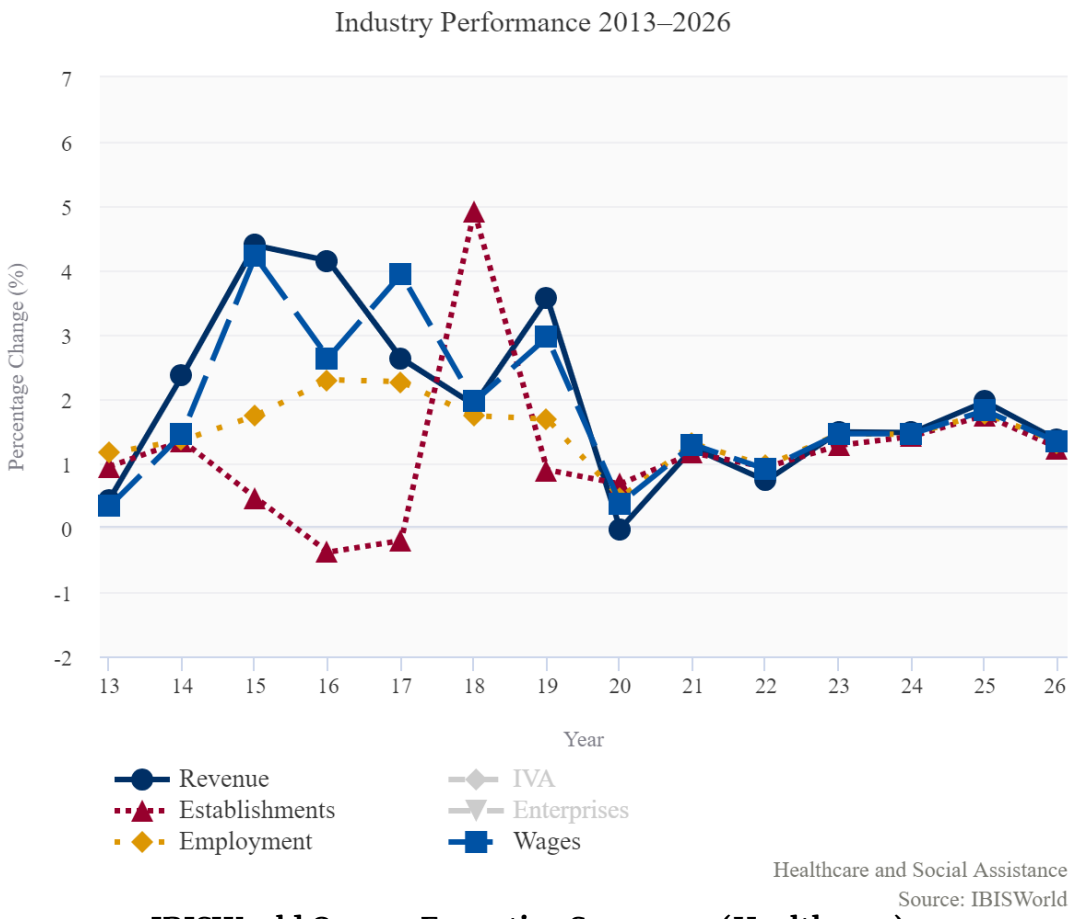
of the supply chain in 2020 as a result of surging consumer and retail demand for food and food products. Resultantly, agricultural commodities piled up and farmgate prices diverged from wholesale and processing prices, since those operations were running on limited capacity amid such strong retail demand, their output prices actually increased while farmers' prices declined. Despite the strong growth in the API in 2020, the industry still declined due to these dynamics.

Industry revenue is expected to increase an annualized 0.6% to $2.8 trillion over the five years to 2026. The industry is anticipated to benefit from the agricultural price index increasing an annualized 0.9% during the same period. Rising prices will likely increase revenue and returns at the farm gate, which will further normalize as demand spikes from the coronavirus subside. Lastly, the industry is still expected to contend with headwinds via the trade conflict with China, and the linger effects of the coronavirus pandemic, which will likely hamper overall economic growth. Overall, future conditions are expected to improve, though by only a minor degree.

GOVA3 High Value Natural Resource Products in GO Virginia - Region 3, 2020Q31											
		Current			5-Year History		2-Year Forecast				
NAICS	Industry	Empl	Avg Ann Wages	LQ	Empl Change	Ann %	Total Demand	Exits	Transfers	Empl Growth	Ann % Growth
	GOVA3 High Value Natural Resource Products	**3,716**	**$43,536**	**9.05**	**-474**	**-2.4%**	**701**	**292**	**530**	**-122**	**-1.7%**
	Total - All Industries	128,053	$36,308	1.00	-6,703	-1.0%	25,920	11,848	15,865	-1,793	-0.7%

Referencing the table above, the region has experienced a nominal change of -474 employees and annual percentage drop of -2.4%. With that said, the industry forecast is trending positively, mitigating employee loss to -122 and annual change to -1.7%, respectively.

Heathcare



Healthcare and Social Assistance
Source: IBISWorld

IBISWorld Q12021 Executive Summary (Healthcare):

Many operators will likely engage in mergers and acquisitions to achieve economies of scale. The Healthcare and Social Assistance sector has steadily grown over the five years to 2021. The majority of services offered by subsectors in the industry, which includes hospitals, ambulatory healthcare services, nursing and residential care facilities and social assistance services, experienced steady demand during the five-year period, driven by demographic changes and increasing total health expenditure. At the same time, many health providers have had to adjust to a complex and changing regulatory environment. Past and future changes to the Patient Protection and Affordable Care Act will continue to have profound effects on operators in the sector. More recently in 2020, the industry experienced a shift in demand as the COVID-19 (coronavirus) pandemic overwhelmed hospitals while causing non-essential healthcare services to be postponed.

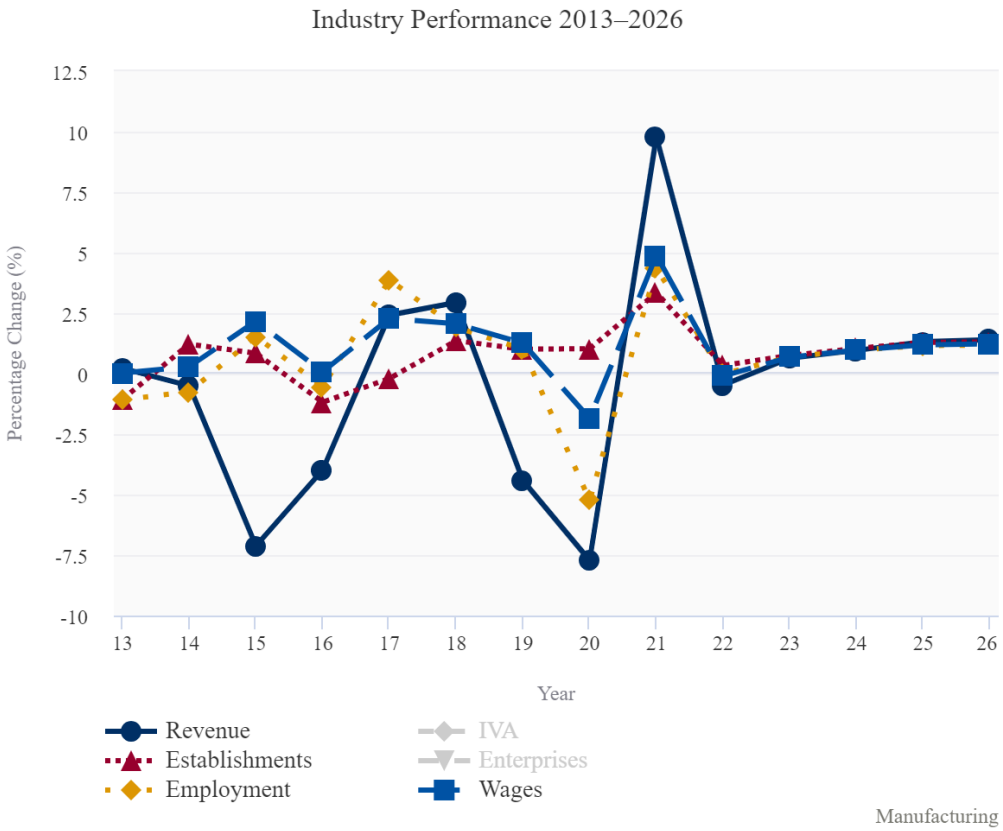
Digitization, advances in technology and strategic capital investment will open new avenues for operators as provider organizations expand physician networks and create economies of scale. Furthermore, increased demand for services provided by the sector

due to an aging population is expected to create new opportunities for the sector as a whole. Consequently, the number of enterprises in the sector is expected to increase at an annualized rate of 1.4% to 3.0 million companies over the five years to 2026. Employment is forecast to follow suit, with total sector employment rising an annualized 1.4% to 25.2 million workers during the same period.

GOVA3 Healthcare in GO Virginia - Region 3, 2020Q31											
		Current			5-Year History		2-Year Forecast				
NAICS	Industry	Empl	Avg Ann Wages	LQ	Empl Change	Ann %	Total Demand	Exits	Transfers	Empl Growth	Ann % Growth
	GOVA3 Healthcare	**15,761**	**$40,273**	**1.05**	**-273**	**-0.30%**	**2,969**	**1,443**	**1,522**	**4**	**0.00%**
	Total - All Industries	128,053	$36,308	1	-6,703	-1.00%	25,920	11,848	15,865	-1,793	-0.70%

Referencing the table above, the region has experienced a nominal change of -273 employees and annual percentage drop of just -0.03%. With that said, the industry forecast is trending positively, expecting a growth in overall employment (4) and a positive annual percentile change, respectively.

Advanced Manufacturing & Materials



Manufacturing
Source: IBISWorld

IBISWorld Q12021 Executive Summary (Advanced Manufacturing):

Revenue for the Manufacturing sector is anticipated to decline at an annualized rate of 1.1% to $5.6 trillion over the five years to 2021, including an increase of 5.9% in 2021 alone following a decline of 15.9% in 2020 amid volatility due to the COVID-19 (coronavirus) pandemic. The sector covers companies that transform inputs via mechanical, physical or chemical processes into new products. Sector revenue drivers are largely attributable to the value of the US dollar, commodity prices, policy decisions and US capacity. The annualized decline in industry revenue is largely attributable to an anticipated drop in 2020 alone as the COVID-19 (coronavirus) pandemic is expected to ravage the US economy, crippling consumer and business sentiment, and increasing unemployment and stifling sector demand. This is also expected to weaken industry profit during the period.

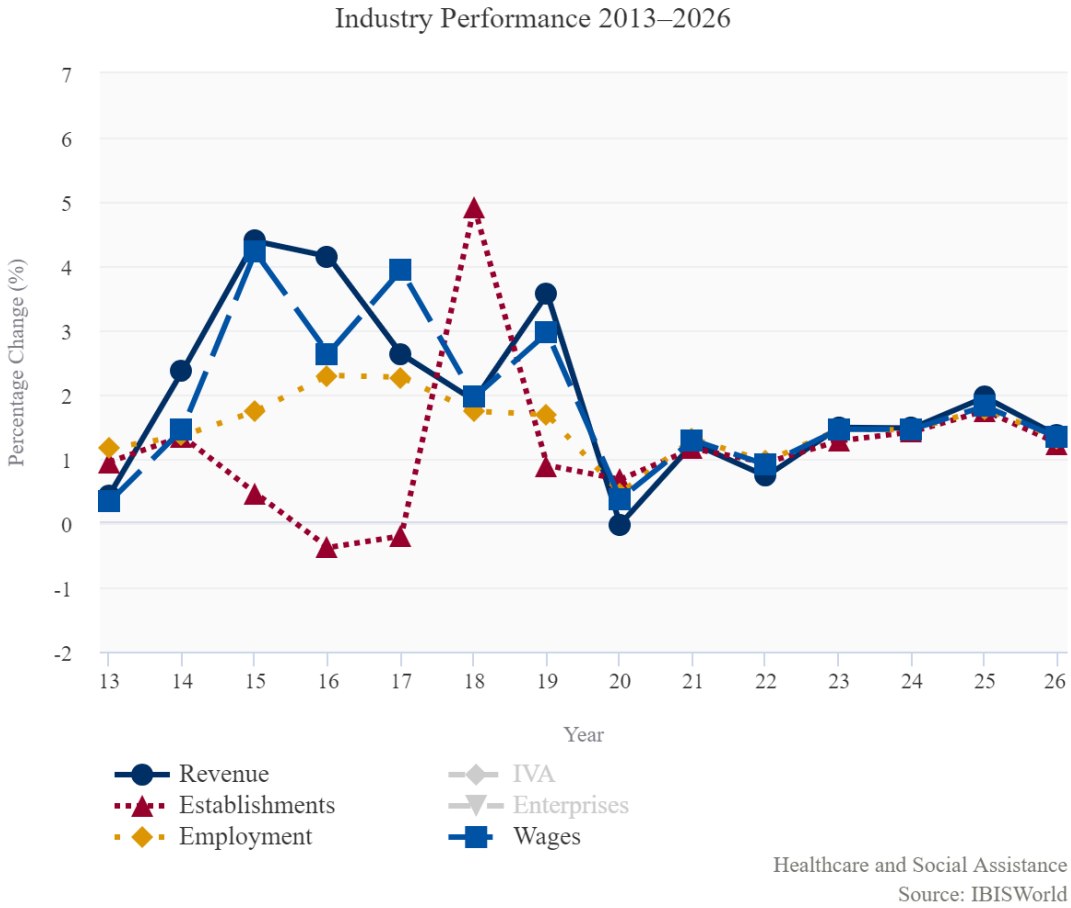
The number of manufacturing establishments has decreased an annualized 0.5% to 625,705 locations over the five years to 2021. Concurrently, sector employment has decreased an annualized 0.3% to 11.3 million workers during the same period. In line with falling employment, wages have decreased as well. Unfortunately, the overall trend of industry establishment, employment and wages during the period is largely the result of declines in 2020. During most of the period, strong economic activity had led to bolstered manufacturing activity and wage growth after years of near stagnation. Nonetheless, the economic shutdowns of most state economies as a means of combating the spread of coronavirus has reversed the sector's good fortunes. Sector profit, measured as earnings before interest and taxes, is anticipated to account for 7.2% of revenue in 2021, down from 8.0% in 2016 due to collapsing demand and product price points.

GOVA3 Advanced Manufacturing and Materials in GO Virginia - Region 3, 2020Q31

		Current			5-Year History		2-Year Forecast				
NAICS	Industry	Empl	Avg Ann Wages	LQ	Empl Change	Ann %	Total Demand	Exits	Transfers	Empl Growth	Ann % Growth
	GOVA3 Advanced Manufacturing and Materials	**7,083**	**$45,081**	**1.62**	**-8**	**0.0%**	**1,270**	**535**	**957**	**-222**	**-1.6%**
	Total - All Industries	128,053	$36,308	1.00	-6,703	-1.0%	25,920	11,848	15,865	-1,793	-0.7%

Referencing the table above, the region has experienced a nominal change of -8 employees and annual percentage drop of ~0%. This illustrates relative stability within the industry regionally. However, that trend line is forecast to decline, resulting in overall employment decreases (-222) and a negative annual percentile change (-1.6%) for the next two years, respectively.

Business Services & IT Data



Healthcare and Social Assistance
Source: IBISWorld

IBISWorld Q12021 Executive Summary (Business Services & IT/Data):

Revenue for the Professional, Scientific and Technical Services sector is expected to increase marginally over the five years to 2020. Services offered by this sector include IT consulting, legal, accounting, bookkeeping, architectural, engineering, specialized design and advertising services, in addition to scientific research and development. Services offered by sector operators are primarily used by businesses and households; therefore, the state of the US economy, including corporate profit and disposable income, affects sector demand. During the majority of the period, growth in consumer spending and business investment drove steady revenue growth for the sector. However, the COVID-19 (coronavirus) pandemic is anticipated to result in a revenue drop in 2020, driving down the overall growth rate for the period. IBISWorld estimates sector revenue to increase a marginal annualized 1.8% to $2.1 trillion in 2020, including a 3.3% decrease in revenue in 2020 alone. Profit, measured as earnings before interest and taxes, is estimated to account for 7.3% of sector revenue.

Although a high level of uncertainty remains, GDP is expected to rebound sometime during the latter half of 2021, climbing throughout the rest of the outlook period. This is in line with guidance from the US Centers for Disease Control and Prevention, indicating that the widespread availability of a COVID-19 (coronavirus) vaccine will not occur until mid to late 2021. Until this occurs, a full return to normal, and thus full recovery, will not be possible and will hold back economic activity. Overall, IBISWorld estimates US GDP to increase at an annualized rate of 2.9% over the five years to 2025. This is expected to drive demand for a range of services provided by this sector. As a result, enterprises and establishments are anticipated to rise. Over the five years to 2025, the number of companies operating in the sector are expected to rise at an annualized rate of 3.1% to 5.6 million enterprises. In line with this growth, industry employment is expected to rise at an annualized rate of 2.9% to 15.2 million individuals during the period.

GOVA3 Business Services and IT Data Centers in GO Virginia - Region 3, 2020Q31											
		Current			5-Year History		2-Year Forecast				
NAICS	Industry	Empl	Avg Ann Wages	LQ	Empl Change	Ann %	Total Demand	Exits	Transfers	Empl Growth	Ann % Growth
	GOVA3 Business Services and IT Data Centers	**7,330**	**$48,099**	**0.68**	**-849**	**-2.2%**	**1,481**	**584**	**935**	**-39**	**-0.3%**
	Total - All Industries	128,053	$36,308	1.00	-6,703	-1.0%	25,920	11,848	15,865	-1,793	-0.7%

Referencing the table above, the region has experienced a nominal change of -849 employees and annual percentage drop of -2.2%. With that said, the industry forecast is trending significantly more positively, mitigating employee loss to just -39, a nominal difference of over 800 jobs for the two year forecast.

Wage Growth In Targeted Traded Industry Sectors

Industry	Year	Average Wage	Growth Rate
HVNRP	2018	$42,165.65	0.55%
	2019	$43,250.61	
	2020	$42,870.53	
Healthcare	2018	$37,492.17	1.21%
	2019	$38,321.60	
	2020	$38,868.67	
Adv. Manu. & Materials	2018	$40,426.85	0.51%
	2019	$41,571.53	
	2020	$41,054.10	
Business Services & IT	2018	$44,101.85	1.21%
	2019	$47,053.49	
	2020	$45,719.68	

Although wages are trending upwards across the target sectors for the region, it is evident when referencing the table set above, that high levels growth have been stagnated by the pandemic. Of the target sectors, healthcare highlights continuous upward wage trends per year, whilst the rest show a dip for 2020. Individual target sector analysis, with affiliated NAICS codes can be referenced below. This analysis will dive into specific industry growth/declines in wages and rates (which are aggregated based on 2018-2020 compound annual growth/decline rates).

- **HVNRP**
  - Top Wage Industry (Dollars in 2020)
    - Reconstituted Wood Product Manufacturing (321219): $69,582
  - Top Wage Industry (Rate)
    - Wood Container and Pallet Manufacturing (321920): 4.12%
  - Lowest Wage Industry (Dollars in 2020)
    - Cut Stock, Resawing Lumber, and Planning (321912): $27,275
  - Lowest Wage Industry (Rate)
    - Timber Tract Operations (113110): -2.49%

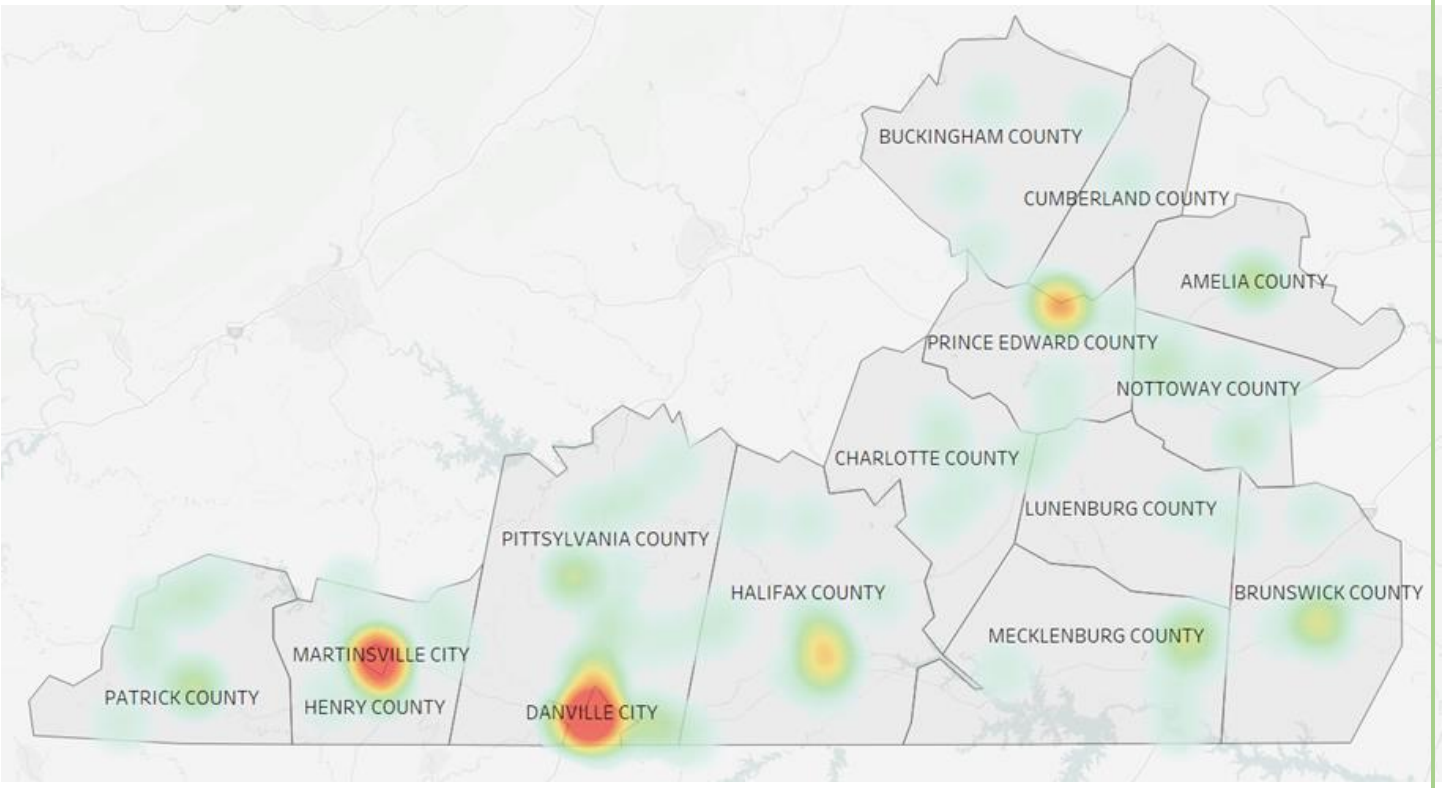
- **Healthcare**
  - Top Wage Industry (Dollars in 2020)
    - HMO Medical Centers (621491): $89,497
  - Top Wage Industry (Rate)
    - Offices of Mental Health Practitioners (except Physicians) (621330): 8.17%
  - Lowest Wage Industry (Dollars in 2020)
    - Home Health Care Services (621610) : $20,535
  - Lowest Wage Industry (Rate)
    - Pharmacies and Drug Stores (446110): -2.78%
- **Advanced Manufacturing & Materials**
  - Top Wage Industry (Dollars in 2020)
    - Pharmaceutical Preparation Manufacturing (325412): $102,543
  - Top Wage Industry (Rate)
    - Aircraft Engine and Engine Parts Manufacturing (336412): 8.24%
  - Lowest Wage Industry (Dollars in 2020)
    - Pottery, Ceramics, and Plumbing Fixture Manufacturing (327110): $18,876
  - Lowest Wage Industry (Rate)
    - Broom, Brush, and Mop Manufacturing (339994): -2.93%
- **Business Services & IT**
  - Top Wage Industry (Dollars in 2020)
    - Corporate, Subsidiary, and Regional Managing Offices (551114): $82,583
  - Top Wage Industry (Rate)
    - Data Processing, Hosting, and Related Services (518210): 12.21%
  - Lowest Wage Industry (Dollars in 2020)
    - Convention and Trade Show Organizers (561920): $12,716
  - Lowest Wage Industry (Rate)
    - Stationery and Office Supplies Merchant Wholesalers (424120): -9.28%

New Business Formation Activity (Source: TEConomy)

Business Formation activity is predominately sourced from the analysis derived from TEConomy Partners LLC, which references two data sources used to provide a full depiction of entrepreneurial dynamics.

- Quarterly Workforce Indicators (QWI) from U.S. Census
- Business Dynamics Research Consortium (BDRC) database

Startup Activity Location Concentration:



- Activity is based on a sliding scale of "significant, moderate, and limited."
  - Significant Activity:
    - Danville, Martinsville
  - Moderate to Significant
    - Farmville, South Boston
  - Moderate
    - South Hill, Lawrenceville
  - Limited
    - Stuart, Chatham, Amelia Court House

New Business Formation in Targeted Traded Sector Industries (Source: TEConomy)

Major Traded Industry Cluster***	Startups, 2019	New Business Formation Rate, 2019		Startups, 2020	New Business Formation Rate, 2020	
		Region	State		Region	State
Agriculture & Food Processing	10	4.4%	4.1%	6	3.2%	5.5%
Business Services	15	2.4%	4.4%	27	5.1%	7.6%
Energy, Natural Resources, & Finished Products	4	1.7%	2.5%	9	4.5%	3.9%
Engineering, R&D, Testing & Technical Services	1	2.0%	4.2%	3	8.1%	7.4%
Financial & Insurance Services	1	0.6%	3.5%	1	0.5%	4.0%
Health Care Services	2	2.9%	4.2%	9	12.5%	15.8%
Information Technology & Communications Services	2	4.3%	3.6%	4	10.8%	8.0%
Life Sciences			2.7%	2	4.9%	6.1%
Manufacturing	5	2.2%	2.1%	7	3.5%	3.7%
Ship Building, Aerospace, & Defense	1	25.0%	1.1%			0.9%
Transportation, Distribution and Logistics	12	3.1%	2.9%	21	6.4%	4.6%
All Other Traded Industries	14	2.9%	3.3%	15	3.6%	5.9%
Traded Industry Total	67	2.6%	3.6%	104	4.6%	6.2%

Executive Summary

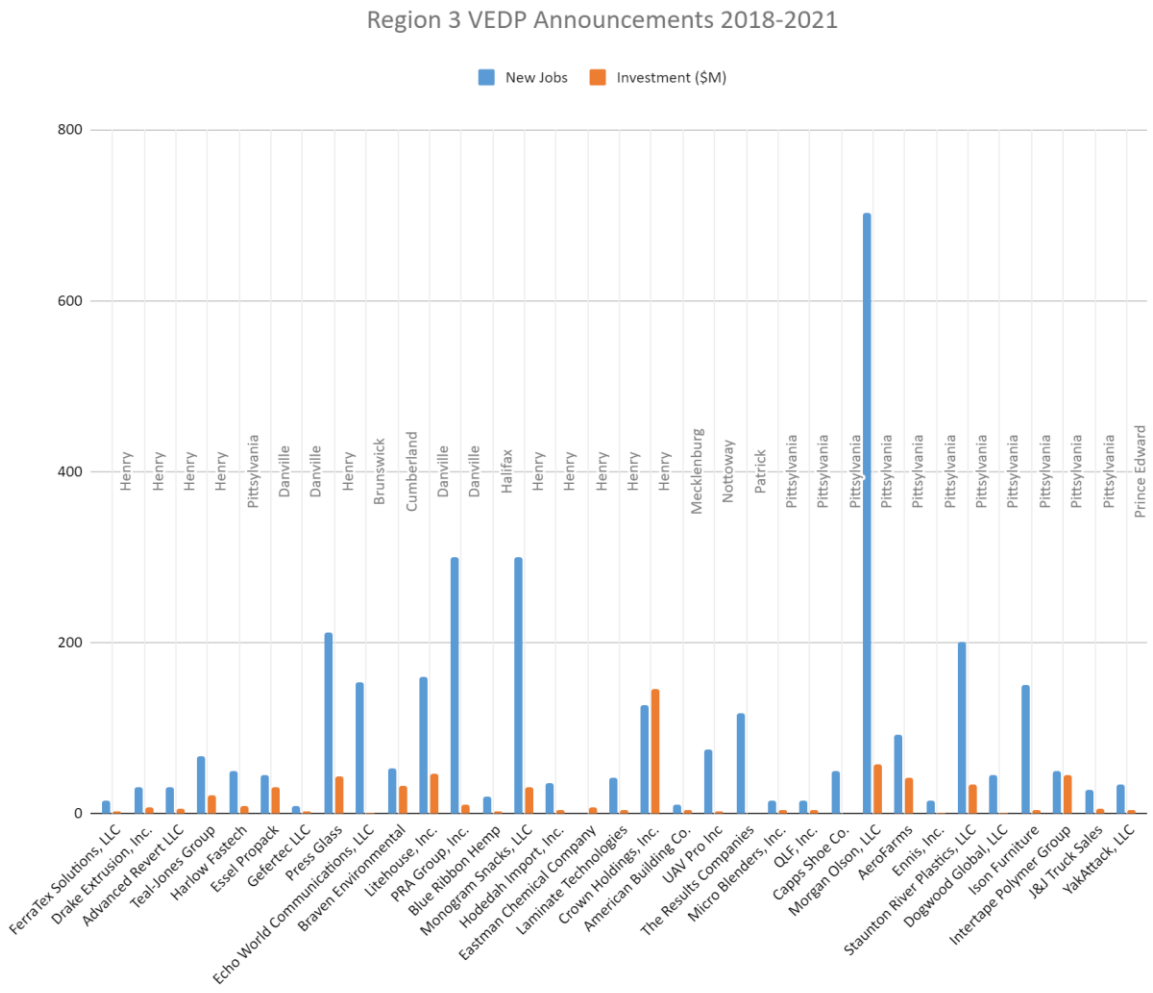
Referencing the table above, Region 3 has experienced a substantial growth in new business formation, an ~77% increase from 2019 to 2020. While the state is growing at a higher rate overall (6.2%), the year to year growth rate favors region 3 (5% increase over the state).

- Target Sector Analysis (Based on Major Traded Industry Clusters)
  - **Advanced Manufacturing (Large, Declining Specialization)**
    - 12 Total Startups from 2019-2020
    - Above State average new business formation rate for 2019 (2.2%)
    - Below State average new business formation rate for 2020 (3.5%)
      1. On par Regional Position Relative to State Average
    - Regional 2018-20 Percentage Job Growth: 12.7%
    - U.S. 2018-20 Percentage Job Growth: 4.6%
  - **Healthcare (Mid-sized, Emerging Strength)**
    - **12 Total Startups from 2019-2020**
    - **Below State average new business formation rate for 2019 (2.9%) and 2020 (12.5%)**
    - **Regional 2018-20 Percentage Job Growth: 4.7%**
    - U.S. 2018-20 Percentage Job Growth: 0.8%
  - **HVNRP** (Mid-sized, Declining)

        - 16 Total Startups from 2019-2020
        - Above State average new business formation rate for 2019 (4.4%)
        - Below State average new business formation rate for 2020 (3.2%)
        - Regional 2018-20 Percentage Job Growth: -5.3%
        - U.S. 2018-20 Percentage Job Growth: 0.4%
    - **Business Services (Mid-sized, Declining)**
        - 42 Total Startups from 2019-2020
        - Below State average new business formation rate for 2019 (2.4%) and 2020 (5.1%)
        - Regional 2018-20 Percentage Job Growth: -13.3%
        - U.S. 2018-20 Percentage Job Growth: 0.3%
    - **IT (Small, Emerging Strength)**
        - **6 Total Startups from 2019-2020**
        - **Above State average new business formation rate for 2019 (4.3%) and 2020 (10.8%)**
            1. **Above Regional Position Relative to State Average**
        - **Regional 2018-20 Percentage Job Growth: 14.8%**
        - **U.S. 2018-20 Percentage Job Growth: 6.9%**
    - Other Emerging Major Traded Industry Clusters:
        - Engineering, R&D, Testing & Technical Services
        - Life Sciences
        - Ship Building, Aerospace, & Defense

- *Disclaimer: While formulating this comparison, Business Services and IT had to be analyzed separately, because TEConomy and their data sources identify them as separate major traded industry clusters.*

Economic Development Announcements (New And Expanding Businesses) (Source: VEDP Website/Announcements)



When looking over the past three years compiled according to VEDP announcements, 25 of those announcements pertained to Manufacturing, which represents ~75% of total investment within all of GOVA Region 3, be it new or expanding operations. Of those, 9 companies pertain directly to the targeted clusters identified by the DHCD selected NAICS codes dataset, representing an alignment of ~36%. **This equates to roughly 64% of the manufacturing sector to be outside of the purview of target sectors, a vast majority of new/expanding operations within the region**. It is worth noting that the VEDP announcements (34) represents a miniscule percent (0.37%) of business activity within the region, according to cross referencing a dataset from Data Axle; which includes verified U.S. historical businesses (9,089) of the same target sector definitions of VEDP, within the 2018-2020 timeframe.

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Situational Analysis (SWOT) Of Targeted Industry Traded Sectors
High Value Natural Resource Products – *Wood Product Manufacturing*

Highlights:

- As unemployment increases, consumer spending is forecast to decline as discretionary purchases are curbed
- Despite falling profit, industry participation has increased over the past five years
- Exports have provided an increasingly important source of industry revenue
- Residential construction is projected to significantly recover following pandemic contractions
- While trade tensions persist between the United States and China, growth in other countries will bolster import expansion
- The environmental benefits of wood-fired electricity generation have come under scrutiny
- Resurgence in the residential construction market has offset more substantial declines

High Value Natural Resource Products – *Agribusiness*

Highlights:

- Downstream operators benefited from heightened demand for food during the pandemic
- Food manufacturers have tried to shelter themselves from input price fluctuation
- Current trade disputes with China have been hampering the industry
- Food wholesalers are likely to remain the largest product segment of the industry
- The expanding use of biofuel will likely represent an opportunity for the industry
- Export markets will likely continue to be an important destination for domestic output
- Weak agricultural prices have hampered industry revenue growth

Healthcare

Highlights:

- Hospitals are expected to face mounting losses as they increase expenditures on frontline workers
- Funding for Medicare expanded due to the burgeoning number of seniors
- The regulatory costs of healthcare services have increased due to federal healthcare reforms
- Operators in the sector are expected to benefit from technological innovation and the digitization of healthcare
- Fundamental forces driving capital investment during the outlook period include an aging population
- The number of enterprises in the sector is expected to increase over the next five years
- Many health providers have had to adjust to a complex and changing regulatory environment

Advanced Manufacturing & Materials

Highlights:

- Trade disputes between the United States and China have resulted in an increase in tariffs between the countries and weakened export levels overall
- The value of the dollar tends to negatively correlate with sector revenue
- In line with rising employment, wages have increased as well
- Changes in the US dollar's value are expected to have an effect on global commodity prices
- Current trade restrictions and the potential for increased tariff rates in the United States is likely to contribute to the decline in the value of imports
- Sector employment and wages will likely grow, while the average wage may experience a modest decline
- Volatility in commodity prices, trade tensions and coronavirus-induced tepid global demand have led the value of industry exports to decline

Business Services & IT Data

Highlights:

- Social distancing measures and heightened uncertainty reduced consumer spending and therefore corporate profit
- Fluctuations in the level of residential and nonresidential construction activity also influence sector demand
- The increasingly digital nature of business and commerce has put pressure on operators
- Revenue growth during the outlook period will be influenced by the performance of numerous economic variables
- Growth in total advertising expenditure will stem from continued demand for online advertising
- Industry profit is anticipated to remain stable during the outlook period
- The sector has been affected by the rise in cloud computing and data analytics, which has prompted downstream businesses to hire consultants

Identification And Recommendation Of Broadening Current Targeted Sectors (Incorporates Existing Targeted Sectors)

- **Encompassing the current target sectors is still critical**, as most of the industry/employment growth (evident by a 2021Q1 Industry Cluster analysis in JobsEQ) within the past two years is in advanced manufacturing (Food Mfg., Auto, Coal/Power, Pharma). The sheer volume of employment (largest amongst target sectors) and higher wages than the regional mean for healthcare warrants retention and advancement of initiatives; especially considering it's the only industry cluster within the region expected to grow over the course of the next two years. Business Services & IT Data highlights the highest average wage of all target sectors and mid-tier employment, despite having the lowest LQ. HVNRP occupations account for the lowest total employment for the region, but mid-tier in wage; additionally, the LQ of the sector is astounding, which illustrates a significantly concentrated talent and advantage of the region.
- **Redefining target sectors definitions/protocols to cast a wider net would be beneficial for the following reasons:**
    - More encompassing of industry/occupation mix (shared occupations between ⅚ digit NAICS)
    - Leaves room (not limiting scope) within an umbrella industry to fund specific projects.
        - Options to fund projects within traded sectors
    - Directly attributable to macroeconomic and trend data (IBISworld, JobsEQ, Teconomy)
        - Beneficial, as traded sector industries are affected more by macroeconomic factors
- **Intention needs to be placed around supporting emerging opportunities.**
    - Despite classifying a relatively robust and comprehensive viewpoint of target sectors, it also inherently inhibits innovative business models, such as
        - Controlled environmental agriculture, which is currently within the major traded sector with Agriculture.
    - Other Environmental Technologies
    - Ag-Based Products (hemp)
    - Autonomous Vehicles
- **An "emerging industries" R&D process/committee could be developed and incorporated to examine ongoing opportunities.**

Workforce Gaps Of Immediately Employable Talent In The Targeted Sectors/Clusters (Source: JobsEQ)

Macro GO Virginia Region 3 Executive Summary

- A JobsEQ snapshot 2-digit Major SOC Code analysis for the historical average annual occupation gaps from 10, 5, and 3 years illustrates a universally positive trend in all occupations for the region.
- An example is Construction and Extraction Occupations (47-0000)
    - For the 10-year analysis, the occupation gap accounted for deficit of (-10)
    - For the 3-year gap, there is a surplus of immediately available talent (+47)
- However, a more profound delineation for the region's occupation gap comes when observing the same analysis with a 2 year degree or higher accreditation filter.
    - The gaps for healthcare and professional/technical occupations highlight a significant deficit, despite a positive trend throughout.
    - This is telling of the region's employment from a wage perspective, as talent availability is more concentrated in lowering paying wages.
- Target Sectors - Each sector's occupational distribution has been filtered by a "top ten" employment volume filter; by doing so, a holistic vantage point can be derived to determine what most individuals within a target sector are earning, relative to the expectation about the employment growth/decline and total demand.

Healthcare

Occupation Distribution for GOVA3 Healthcare in GoVirginia - Region 3, Baseline							
		Current		2-Year Demand			
SOC	Occupation	Empl	Avg Ann Wages	Exits	Transfers	Empl Growth	Total Demand
29-1141	Registered Nurses	1,776	$62,900	97	90	-15	173
31-1131	Nursing Assistants	1,608	$24,700	171	183	-12	341
31-1122	Personal Care Aides	1,437	$19,800	224	196	40	460
29-2061	Licensed Practical and Licensed Vocational Nurses	763	$41,500	51	63	-3	112
31-1121	Home Health Aides	509	$19,800	58	62	14	134
31-9092	Medical Assistants	486	$32,600	39	71	8	117
43-4171	Receptionists and Information Clerks	386	$26,400	45	58	-1	102
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	310	$44,400	20	45	5	70
29-2052	Pharmacy Technicians	272	$29,900	15	27	-6	37
29-1228	Physicians, All Other; and Ophthalmologists, Except Pediatric	254	$175,800	8	6	-3	12
	Subtotal	**7,800**	**$47,780**	**727**	**803**	**28**	**1,558**
	Total	**15,761**	**$56,820**	**1,358**	**1,726**	**-17**	**3,067**

Average for the top 10 occupations (from a volume perspective) is $47,780, which represents a ~16% differential from the average. This implies that most of the top employment concentration is on the lower spectrum of wages. Employment growth for the 10 top occupations appears promising at first glance (surplus of 28), but it's being predominantly inflated by Personal Care and Home Health Aids, which both represent a $19,800 annualized wage.

Advanced Manufacturing

Occupation Distribution for GOVA3 Advanced Manufacturing and Materials in GoVirginia - Region 3, Baseline

		Current		2-Year Demand			
SOC	Occupation	Empl	Avg Ann Wages	Exits	Transfers	Empl Growth	Total Demand
51-2092	Team Assemblers	528	$34,900	38	70	-33	75
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	297	$29,900	16	43	-14	45
51-1011	First-Line Supervisors of Production and Operating Workers	296	$58,100	18	39	-8	50
51-9197	Tire Builders	285	$49,600	10	45	-8	47
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	264	$36,300	19	34	-8	46
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	257	$36,000	18	38	-17	39
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	216	$29,800	18	39	-5	52
51-9111	Packaging and Filling Machine Operators and Tenders	193	$32,100	16	27	-4	39
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	176	$39,600	9	31	-8	31
49-9041	Industrial Machinery Mechanics	167	$47,000	11	21	3	34
	Subtotal	**2,678**	**$39,330**	**174**	**385**	**-101**	**458**
	Total	**7,083**	**$50,503**	**473**	**982**	**-226**	**1,228**

Average for the top 10 occupations (from a volume perspective) is $39,330, which represents a ~25% differential from the average. This implies that most of the employment concentration is on the lower spectrum of wages, which cannot be offset by a high portion of First-Line Supervisors of Production and Operating Workers (296). The subtotal for employment growth at -101 equates to a 44.74% increase over the total for Advanced Manufacturing and Materials, at -226, which illustrates that while the occupational demand is universally declining, most of the employment isn't affected as adversely.

High Value Natural Resource Products

Occupation Distribution for GOVA3 High Value Natural Resource Products in GoVirginia - Region 3, Baseline

		Current		2-Year Demand			
SOC	Occupation	Empl	Avg Ann Wages	Exits	Transfers	Empl Growth	Total Demand
45-4022	Logging Equipment Operators	404	$43,100	29	89	-19	99
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	327	$30,400	18	53	-10	61
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	320	$29,600	33	52	-8	76
51-2092	Team Assemblers	276	$31,800	20	37	-18	39
53-3032	Heavy and Tractor-Trailer Truck Drivers	200	$39,000	15	27	-8	34
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	197	$26,200	17	35	-5	47
53-7051	Industrial Truck and Tractor Operators	146	$36,500	8	23	-4	27
51-1011	First-Line Supervisors of Production and Operating Workers	102	$54,600	6	14	-3	17
53-7063	Machine Feeders and Offbearers	75	$34,500	7	12	-2	17
45-4021	Fallers	72	$44,600	5	15	-5	16
	Subtotal	**2,119**	**$37,030**	**157**	**356**	**-80**	**433**
	Total	**3,716**	**$46,156**	**269**	**586**	**-127**	**729**

Average for the top 10 occupations (from a volume perspective) is $37,030, which represents a ~22% differential from the average. This implies that most of the employment concentration is on the lower spectrum of wages. Additionally, at an employment subtotal of nearly 57% within the top 10, this illustrates limited occupational diversity. The subtotal for employment growth at -101 equates to a 44.74% increase over the total for Advanced Manufacturing and Materials, at -226, which illustrates that while the occupational demand is universally declining, most of the employment isn't affected as adversely.

Business Services & IT Data

Occupation Distribution for GOVA3 Business Services and IT Data Centers in GoVirginia - Region 3, Baseline

		Current		2-Year Demand			
SOC	Occupation	Empl	Avg Ann Wages	Exits	Transfers	Empl Growth	Total Demand
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	571	$29,500	52	109	4	165
43-4051	Customer Service Representatives	544	$26,400	53	94	4	151
53-7065	Stockers and Order Fillers	369	$27,400	37	59	-4	92
53-7051	Industrial Truck and Tractor Operators	328	$39,400	19	53	-3	70
15-1256	Software Developers and Software Quality Assurance Analysts and Testers	219	$98,500	7	26	6	39
53-3032	Heavy and Tractor-Trailer Truck Drivers	173	$43,600	14	25	-1	38
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	162	$65,400	9	23	-3	29
11-9198	Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	159	$81,300	8	15	-4	18
11-1021	General and Operations Managers	155	$122,200	7	20	0	27
43-5071	Shipping, Receiving, and Inventory Clerks	151	$33,800	9	19	-4	24
	Subtotal	**2,831**	**$56,750**	**214**	**444**	**-6**	**653**
	Total	**7,330**	**$54,542**	**535**	**1,041**	**-45**	**1,530**

Average for the top 10 occupations (from a volume perspective) is $56,750, which represents a ~4% positive differential from the average. This implies that most of the top employment concentration is on the higher spectrum of wages. Additionally, at an employment subtotal of nearly 39% for the top 10 occupations, this illustrates high levels of decentralized occupation concentration within the industry. The subtotal for employment growth at -6 (highlighting relative stability) equates to a 152% difference over the total for Business Services and IT Data Centers, at -45, which illustrates that while the occupational demand is universally declining, a large portion of the higher employed/wage occupations have relative stability and isn't affected as adversely.

Appendix B

Analysis of Business and Industry Sites and Buildings with VEDP Pipeline Activity and Target Industry Clusters

Prepared by Community Futures

Neal J. Barber, President

List of Tables

Introduction

The purpose of this analysis is to determine if the supply of commercial real estate, "product" (sites and buildings), for business expansion or location is suitable and adequate to accommodate company location/expansion in Region 3's four current target industry sectors. The analysis reviews the availability of sites and buildings and project activity as reported by Virginia Economic Development Partnership (VEDP) from January 2018 to June 30, 2021. The analysis presents data at the GO Virginia Regional 3 level, economic development Region and locality level. The consultants were able to obtain a database from VEDP that contains the details of prospect referrals and project announcements from January 2018 to June 30, 2021. The data related to available sites and buildings was taken from the VEDP VirginiaScan website in August of 2021. Additional data on the VEDP ratings of sites was obtained from the Sothern Virginia Regional Alliance (SVRA), the Southside Planning District Commission and Martinsville/Henry County. This data was compared to similar VEDP data that was analyzed during the 2019 update to the Region 3 Growth and Diversification Plan.

The analysis was conducted in four distinct components; 1) a review of the available commercial real estate, sites and buildings, against typical preferred location criteria for the four target industry clusters, 2) analysis of the VEDP project pipeline from January 2018 through June 30, 2021, 3) analysis of the VEDP project pipeline related to the target industry clusters, and 4) a comparison of the available commercial real estate and the VEDP project pipeline with the analysis conducted in 2019.

Executive Summary

The analysis of business and industry sites, buildings with VEDP pipeline activity and the target industry clusters revealed that there is a directed and positive correlation with the availability of sites/buildings suitable for business expansion to business expansion decisions. By far, manufacturing companies are the most dominant industry cluster interested in the region as reflected in the VEDP referrals and business announcement data. The concentration of business expansion activity is in just five localities along the North Carolina border. These trends have been consistent for at least 6 ½ years.

Recent sales of prime publicly-owned commercial real estate indicate that additional investment in site development will be required if the region wishes to continue the past trends of businesses expanding within the region. If economic prosperity is to be achieved throughout the region, particularly the northern counties, the Region 3 Council needs to address the geographic distribution of business activity within region. A concerted effort to develop partnerships with the localities and development organizations will be required to facilitate investment in commercial real estate in those localities.

The following is a compilation of the conclusions and findings of the analysis of the four components of this analysis:

1) Review of the available commercial real estate, sites and buildings, against typical preferred location criteria for the four target industry clusters

After review of the available data from the VEDP website on available sites and buildings in Region 3 there are some significant findings that can be used to guide the update of the Growth and Diversification Plan. One initial question this analysis explored is: Is there an adequate supply of suitable sites and buildings that meet the preferred expansion and location criteria of Region 3's target industry clusters? The following are the findings that address that central question:

Business and Industrial Sites

- 84% of the VEDP listed sites (65 out of 77) are in just 8 localities along the Rt. 58 Corridor bordering North Carolina. If economic growth is desired throughout the region, additional effort will be needed to develop suitable business and industrial sites in the northern localities and the VGA subregion.
- 91% of the listed sites (70 out of 77) have central water and sewer service and 87% (67) sites have natural gas service. Even with the availability of utility service there are few sites rated as Tier 3 or 4 on the VEDP "Business Ready" rating scale.
- 61% (47) sites have contiguous acreage greater than 25 acres leaving 33 that are less than 25 ac. It appears that most of the sites are best suited for businesses in two target industry clusters, 1) high value agricultural products and 2) advanced manufacturing and materials. There are fewer sites designed for businesses in the healthcare and information technology/data center industry clusters.
- The Southern Virginia Mega Site at Berry Hill in Pittsylvania County has over 2000 acres of contiguous developable land with a Tier 4 "Business Ready" rating. This site is uniquely positioned for location of a major manufacturing facility.
- Of the 33 sites that are currently available with VEDP "Business Ready" ratings, 76% (25 sites) are rated as Tier 2. Only 2 sites are rated Tier 4 and another 2 sites rated Tier 3. Significant investment will be necessary to increase the Tier ratings of sites throughout the region.
- A significant number of Tier 4 rated "Business Ready" sites, 4, have been recently purchased for future data center and information technology use. This has left the region with very few "Certified" Business Ready sites.
- If businesses in Region 3 desire to increase business investment in the healthcare, information technology/data centers industry clusters an assessment of suitability of sites, less than 25 acres, should be undertaken to certify a number of these sites for use in these industry clusters.

Industrial, Flex and Office Buildings

- Overall, there is a limited number and variety of buildings listed on the VEDP website.

- All 19 of the office buildings listed on the VEDP website are in 6 localities along the Rt. 58 Corridor bordering North Carolina. All but one of the 42 industrial/flex buildings are in 7 localities along the Rt. 58 Corridor bordering North Carolina. If economic growth is desired throughout the region additional effort will be needed to develop and market suitable office, industrial and flex buildings in the northern localities of Region 3.
- There are only 5 Class A office buildings listed. If further expansion in the healthcare and information technology sectors is desired, then additional Class A office space will be required.
- It appears that there are few buildings that are well suited for data centers. An assessment of suitability of the existing inventory of buildings for data center use should be undertaken followed by a targeted marketing campaign for those that are uniquely positioned for a data center.

2) Analysis of the VEDP project pipeline from January 2018 through June 30, 2021

An analysis of the VEDP project referral and project announcement data from January 2018 through June 30, 2021, for the individual localities, subregions and Region 3, was undertaken to determine the extent of business prospect activity in locating or expanding in the Region, the distribution of this activity among the localities, the character of the business prospects and what has been the success of the region in securing those business expansion opportunities. The analysis yielded the following findings and conclusions:

- Of the 577 business project referrals, 80.2% (463) were concentrated in just 5 localities along the North Carolina border: the City of Danville, and Mecklenburg, Halifax, Pittsylvania, and Henry Counties.
- Of the 40 project announcements, 80% (32) were in 3 localities along the North Carolina border: the City of Danville, Pittsylvania, and Henry Counties.
- The 40 project announcements represented 3,398 jobs and $642,038,800 in investment.
- The City of Danville and Henry and Pittsylvania Counties in the SVRA subregion represented 91.1% of the jobs and 93.5% of the private investment associated with the business announcements.

Table 1

VEDP Referrals and Announcements January 2018 to 6/30/2021

	Referrals		Announcements					
Locality	**Number**	**%**	**Projects**	**%**	**Jobs**	**%**	**Investment**	**%**
Amelia	11	1.9%						
Brunswick	27	4.7%	1	2.5%	153	4.5%	$549,900	0.1%
Buckingham	1	0.2%						
Charlotte	22	3.8%						
Cumberland	6	1.0%	1	2.5%	52	1.5%	$31,650,000	4.9%
Lunenburg	4	0.7%						
Mecklenburg	127	22.0%	1	2.5%	10	0.3%	$3,500,000	0.5%
Nottoway	12	2.1%	1	2.5%	75	2.2%	$2,500,000	0.4%
Prince Edward	15	2.6%	1	2.5%	34	1.0%	$3,408,500	0.5%
VGA Total	**225**	**39.0%**	**5**	**12.5%**	**171**	**5.0%**	**$41,058,500**	**6.4%**
Danville	58	10.1%	5	12.5%	558	16.4%	$96,640,600	15.1%
Halifax	41	7.1%	1	2.5%	20	0.6%	$2,935,000	0.5%
Henry	121	21.0%	11	27.5%	860	25.3%	$269,001,700	41.9%
Martinsville	13	2.3%						
Patrick	3	0.5%	2	5.0%	177	5.2%	$12,800,000	2.0%
Pittsylvania	116	20.1%	16	40.0%	1612	47.4%	$219,603,000	34.2%
SVRA	**352**	**61.0%**	**35**	**87.5%**	**3227**	**95.0%**	**$600,980,300**	**93.6%**
Total	**577**	**100.0%**	**40**	**100.0%**	**3398**	**100.0%**	**$642,038,800**	**100.0%**

- While 89% (515) of project referrals were out-of-state companies, 55% (22) of the project announcements were out-of-state companies. This disparity between referrals and announcements is likely attributed to the fact that VEDP normally refers a business prospect to multiple localities within the region.

- 80% (463) of the project referrals are no longer active with 66% (305) of these "disengaged", stopped considering Virginia for location/expansion. Only 7.8% (36) of the closed company referrals decided to locate in Virginia while 24% of closed projects deciding to locate outside of Virginia.
- There was an average of 89 jobs and $16,064,718 per announced project which is $180,705 of investment per job. The high percentage of manufacturing companies represented in the announcements likely contributed to the high level of investment per job.

3) Analysis of the VEDP project pipeline related to the target industry clusters

An analysis of the VEDP project referral and project announcement data from January 2018 through June 30, 2021, for the individual localities, subregions, and Region 3, was undertaken to determine the relationship with the 4-target industry clusters; 1) high-value agricultural products, 2) advanced manufacturing and materials, 3) healthcare and 4) information technology/data centers. The analysis yielded the following findings and conclusions:

- 84% (484) of the project referrals were manufacturing companies, 4% (23) were corporate services companies, 4% (21) were logistics/distribution related companies, 3% (17) were life science companies, and 2% (11) were information technology companies. While 84% of the referrals were manufacturing companies, 67.5% (27) of the announcements were manufacturing companies. This disparity between referrals and announcements, again, is likely attributed to the fact that VEDP normally refers a business prospect to multiple localities within the region. 2 distribution related companies, 2 corporate services companies and 1 information technology company made announcements over the 3 ½ year time period.
- Of the 164 different 6-digit NAICS Code categories in the 4 target industry clusters, only 38 categories were represented in the VEDP referral/project data and only 11 categories represented in the announcement data. There were numerous instances where a company NAICS code was close to the target industry cluster list but was not included in the tabulation. The Region 3 Council may wish to either expand the listing of 6-digit NAICS codes or use 4-digit NAICS codes rather than the current 6-digit NAICS codes to capture more of the VEDP project activity related to the target industry clusters.

4) Comparison of the available commercial real estate and the VEDP project pipeline with the analysis conducted in 2019.

An analysis of 6 ½ years of VEDP project pipeline data from 2015 through June 30, 2021, for the individual localities, subregions and Region 3, was undertaken to determine if there were trends or changes in trends that should be reflected in the update to the Growth and Diversification Plan for Region 3. The analysis yielded the following findings and conclusions:

- *The analysis of 6 ½ years of data from VEDP confirms what one might suspect, there is a direct and positive correlation between the availability of; 1) prepared business and industrial sites, and 2) suitable industrial and flex buildings with VEDP prospect activity and project announcements. Those localities that have invested in preparing industrial sites and constructing industrial buildings have reaped the benefits. They have seen 80% or more of project recommendations/referrals from VEDP and more than 90% of announced jobs and investments from companies locating or expanding in those localities. The localities with a variety of prepared industrial sites and suitable industrial buildings have significant competitive advantage in locating new or expanding industries, particularly manufacturing operations, over those localities that lack these resources.*

Analysis of Available Industrial and Business Sites

The purpose of the analysis of available sites within Region 3 is to determine if there is an adequate supply of suitable sites that meet the projected demand for business expansion and location within the target industry clusters established by Region 3; 1) high value agricultural products, 2) advanced manufacturing and materials, 3) healthcare and 4) information technology/data centers.

Companies in the high-value agricultural products cluster, particularly forest products firms, and the advanced manufacturing and materials cluster, often require sites that are; 1) in industrial or business areas or parks, 2) have a full complement of utilities, water, sewer and gas, with sufficient capacity , 3) allow for outside storage of raw materials and product inventory, 4) on a large site, greater than 25 acres, to accommodate truck circulation and outside storage and 5) and have easy access to raw materials and markets.

Companies in the healthcare cluster and information technology clusters typically require space in an office/commercial area that with access to high-speed telecommunications infrastructure. While water and sewer are preferred these firms can manage with on-site utilities. These companies can require space that is just an acre to over 10 acres.

Data centers have unique location requirements that include; 1) access to significant energy supply necessary to power the computer servers and meet the HVAC requirements that keep the computer networks cool, 2) site security features, 3) water and sewer capacity to handle the HVAC cooling needs and 4) redundant high-speed telecommunications connections to backbone. While larger data centers require large sites, smaller data centers can locate on smaller sites in more developed commercial settings.

All businesses that are planning to expand or relocate prefer to move quickly once the decision has been made to expand/relocate thus the more “ready” the site is to accommodate the new facility the shorter the time necessary to get in operation.

The VEDP’s Virginia Business Ready Sites Program (VBRSP) and associated Tier ratings provide an indication of the time necessary to get under construction: the higher the Tier rating the shorter the time, the lower the Tier rating the longer the time.

One of the major factors in business location/expansion is the cost of doing business both in the short-term and in the long-term. If a company is considering multiple locations that have similar locational advantage, it may be helpful to be able to reduce the initial short-term costs of the location/expansion by offering incentives to the company. A common method of encouraging investment in select areas of a locality is to designate those areas as Enterprise Zones.

Another method that localities can encourage investment in select areas is through the designation of a Technology Zone. Through these designations the locality can provide incentives for the company’s investment and job creation. While the incentives may not be a major factor in the company’s operating budget, it does illustrate pro-business environment and willingness to support the business financially in its location process. Similarly, the federal government provides incentives for investment in select areas through the designation of Historically Underutilized Business (HUB) and Opportunity Zones.

The following table provides an overview of the preferred site criteria for many of the businesses in each of the target industry clusters.

Table 2

Preferred Site Selection Criteria							
Target Industry Cluster	**Site Size - acres**	**Graded Pad**	**Utilities**				
			Water	**Sewer**	**Gas**	**Advanced Broadband**	**Advanced Energy**
High-Value Agricultural Products	25 +		**X**	**X**	**X**		
Advanced Manufacturing and Materials	25 +	**X**	**X**	**X**	**X**		
Healthcare	1 to 10		**X**	**X**		**X**	
Information Technology	1 to 10	**X**	**X**	**X**		**X**	
Data Centers	1 to 200	**X**	**X**	**X**		**X**	**X**

The VEDP comprehensive database of available sites and buildings in Virginia was used to analyze the number and character of business and industrial properties currently on the market available for business expansion or location. This analysis reviewed, 1) the number of properties available, 2) those with water, sewer and gas utilities available, 3) size of the largest site and 4) any site certification or enterprise zone or hub zone designation. The analysis tabulated the sites by locality, subregion (Virginia's Growth Alliance and the Southern Virginia Regional Alliance) and region as a whole.

There are a total of 77 business and industrial sites available throughout the region, 56 in the SVRA sub region (73%) and 21 in the VGA subregion (27%). Danville and Pittsylvania County have the most sites with 16 each. Amelia and Nottoway do not have any sites listed on the VEDP website. Of the 77 sites 70 (91%) have water and sewer service at the site with 16 (23%) in the VGA subregion and 54 (77%) in the SVRA subregion. 67 sites are served by natural gas (87%) with 14 (21%) in the VGA subregion and 53 (79%) in the SVRA subregion. Danville and Pittsylvania, Halifax, Henry have the largest number of sites and the largest number of sites served by utilities. In the VGA subregion Brunswick and Mecklenburg counties have a combined total of 9 sites all served by water and sewer. Over three quarters of available sites are in the localities along the Rt. 58 corridor parallel to the North Carolina line.

Of the 77 sites in the region a surprising number 67 (87%) have natural gas service, 53 in the SVRA subregion and 14 in the VGA subregion. Of the sites served by water and sewer 33 sites (47%) have less than 25 acres contiguous developable land. 13 sites (19%) have between 25 and 50 acres of contiguous developable land.15 sites (21%) have between 100 and 250 acres of contiguous developable land. 7 sites (10%) have between 100 and 250 acres of contiguous developable land. Lastly, 2 sites (3%) have contiguous developable land larger than 250 acres. Both sites are in Pittsylvania County.

Table 3

Regional Site Inventory

Available Sites by Size with Utilities

Locality	Sites Total	Water and Sewer by Size - acres						Gas
		Total	<25	25-50	50-100	100-250	250+	
Amelia	0	0						
Brunswick	4	4	2		1	1		4
Buckingham	3	2	2					3
Charlotte	1	1				1		1
Cumberland	1	0						
Lunenburg	3	2			2			2
Mecklenburg	5	5	3		2			3
Nottoway	0	0						
Prince Edward	4	2			2			1
VGA	**21**	**16**	**7**	**0**	**7**	**2**	**0**	**14**
Danville	16	16	10	3	2	1		16
Halifax	11	11	5	6				10
Henry	10	9	3	2	1	3		9
Martinsville	2	2	2					2
Patrick	1	1			1			1
Pittsylvania	16	15	6	2	4	1	2	15
SVRA	**56**	**54**	**26**	**13**	**8**	**5**	**2**	**53**

Region 3 Total	**77**	**70**	**33**	**13**	**15**	**7**	**2**	**67**

Of the 77 sites available in Region 3, 9 are certified. The Prince Edward Business Park is certified and rated Tier 4 in the VEDP Business Ready Sites Program. This is the only certified site in the VGA subregion. There are 9 certified sites in SVRA subregion, 8 in Henry County and the Southern Virginia Mega Site at Berry Hill in Pittsylvania County. Of the 8 certified sites in Henry County, 2 are in Commonwealth Crossing Business Centre and 5 are in Patriot Centre Industrial Park.

79% (47 of the 77) available sites are in a designated Enterprise Zone. 28 of the 47 sites with Enterprise Zone designations are in federally designated Hub Zones. 14 of the 21 sites in the VGA subregion are in designated Enterprise Zones and 47 are in the SVRA subregion.

Table 4

Regional Site Inventory

Available Sites with Certification or Zone Designation

Locality	Total Sites	Certified	Enterprise Zone	Hub Zone
Amelia	0		0	0
Brunswick	4		3	0
Buckingham	3		0	0
Charlotte	1		1	1
Cumberland	1		0	0
Lunenburg	3		3	2
Mecklenburg	5		5	3
Nottoway	0		0	0
Prince Edward	4	1	2	2
VGA Total	**21**	**1**	**14**	**8**
Danville	16		15	0
Halifax	11		10	8
Henry	10	8	7	3

Martinsville	2		2	2
Patrick	1		1	1
Pittsylvania	16	1	12	0
SVRA Total	**56**	**9**	**47**	**14**

Region 3 Total	**77**	**10**	**61**	**22**

Sites with VEDP Business Ready Sites Program (VBRSP) Rating

The Virginia Business Ready Sites Program (VBRSP) was established to identify and assess the readiness of potential industrial or commercial sites in the Commonwealth of Virginia (the Commonwealth) for marketing for industrial or commercial economic development purposes. Sites are characterized into 5 Tier levels:

- Tier 1: Site under (a) public ownership, (b) public/private ownership, or (c) private ownership which such private owner(s) agreeable to marketing the site for economic development purposes and to allowing access to the property for site assessment and marketing purposes, but at no established sales price. Comprehensive plan reflects site as appropriate for industrial or commercial development and use, but site is not zoned as such. Site has minimal or no infrastructure. Minimal or no due diligence has been performed.
- Tier 2: Site under (a) public ownership, (b) public/private ownership, or (c) private ownership with an option agreement or other documentation of a commitment by the private owner(s) to a competitive sales price, to permit access to the site for site assessment, construction, and marketing, and to market the site for industrial or commercial economic development purposes. Comprehensive Plan reflects site intended for industrial or commercial development and use, but site is not zoned as such and a rezoning hearing needs to be scheduled. Site has minimal or no infrastructure. Minimal or no due diligence has been performed.
- Tier 3: Site is zoned for industrial or commercial development and use. Site has minimal or no infrastructure. Due diligence including, among other things, a wetlands survey with Army Corps of Engineers approval within the last five years, geotechnical borings, boundary and topographical survey, cultural resources review, an Endangered Species review, and a Phase I Environmental Site Assessment, has been completed. Estimated costs of development have been quantified.
- Tier 4: All infrastructure is in place or will be deliverable within 12 months. All permit issues have been identified and quantified.
- Tier 5: All permits are in place and the site is ready for a site disturbance permit from the locality in which the site is located.

The VEDP “Business Ready” rating of available business and industrial sites in GO Virginia Region 3 was obtained from the two regional marketing organizations, Southern Virginia Regional Alliance and Virginia’s Growth Alliance. The information related to 40 different sites in 10 of the15 localities in Region 3. Data was not available for the City of Martinsville and Henry, Amelia, Buckingham, and Nottoway Counties. The following table lists the number of sites listed on the VEDP website, by locality

and region, and the number of sites with VEDP Business Ready Tier Rating. Of note are the seven sites that had Tier ratings but were not listed. Six of those sites were in Mecklenburg County where four were classified as Tier 4 and 2 as Tier 2. Microsoft has purchased all six of these sites between the 4th quarter of 2020 and the 2nd quarter of 2021 for future expansion and development. These acquisitions will impact the analysis of prospect activity and future marketability of Mecklenburg County to business prospects.

Of the 77 sites listed in the VEDP website the Tier ratings were available for 33 of the sites. The following analysis is reflective of the sites in the localities where data is available.

Table 5

GO Virginia Region 3			
Sites with Tier Rating			
	VEDP Listed Sites		**Sites Not Listed with Tier Rating**
Locality	**Total**	**With Tier Rating**	
Danville	16	6	1
Halifax	11	6	
Henry	10	0	
Martinsville	2	0	
Patrick	1	1	
Pittsylvania	16	8	
SVRA	**56**	**21**	**1**
Amelia	0	0	
Brunswick	4	3	
Buckingham	3	0	
Charlotte	1	1	
Cumberland	1	1	
Lunenburg	3	2	
Mecklenburg	5	1	6
Nottoway	0	0	

Prince Edward	4	4	
VGA	**21**	**12**	**6**
Region 3 Total	**77**	**33**	**7**

Of the 40 sites with VEDP Tier ratings 22, 55%, are in the Southern Virginia Regional Alliance (SVRA) and 18, 45%, are in Virginia's Growth Alliance (VGA). Most of the sites are rated as Tier 2, 70%. There aren't any sites rated as Tier 5 and only 6 sites rated as Tier 4. As noted above, 4 of the sites rated as Tier 4 are in Mecklenburg County and have been sold to Microsoft. 2 sites are rated as Tier 3 and 4 as Tier 1.

Table 6

VEDP Tier Rating of Sites by Locality

Locality	Total Sites	VEDP Tier Rating					Currently Available
		1	2	3	4	5	
Danville City	7		7				6
Halifax	6	2	4				6
Patrick	1		1				1
Pittsylvania	8		7		1		8
SVRA Total	**22**	**2**	**19**	**0**	**1**	**0**	**21**
Brunswick	3		3				3
Charlotte	1			1			1
Cumberland	1		1				1
Lunenburg	2		2				2
Mecklenburg	7		2	1	4		1
Prince Edward	4	2	1		1		4
VGA Total	**18**	**2**	**9**	**2**	**5**	**0**	**12**
Region 3 Total	**40**	**4**	**28**	**2**	**6**	**0**	**33**

The following tables list the available sites by Tier rating and by size. The first table is for the SVRA localities, the second table for the VGA localities and the third table is the summary for Region 3.

Of the 21 “Business Ready” rated sites in the SVRA region:

- Tier 1 - 2 sites both are between 25 and 50 ac.
- Tier 2 - 18 sites with 17 between 50 and 100 ac. and one less than 25 ac.
- Tier 4 - 1 site, the Southern Virginia Mega Site at Berry Hill in Pittsylvania County which is over 2,000 ac.

Table 7

VEDP Tier Rating of Sites by Acreage and Locality

Locality	Tier	Available Sites	Largest Contiguous Acreage				
			< 25	25 - 50	50 - 100	100 - 250	250+
Danville		6					
	2	6	1	2	2	1	0
Halifax		6					
	1	2		2			
	2	4		2	2		
Patrick		1					
	2	1			1		
Pittsylvania		8					
	2	7		3	4		
	4	1					1
SVRA Total		**21**	**1**	**2**	**17**	**0**	**1**
	1	**2**		**2**			
	2	**18**	**1**		**17**		
	4	**1**					**1**

Of the 12 “Business Ready” rated sites in the VGA region:

- Tier 1 - 2 sites and both are greater than 250 ac.
- Tier 2 - 7 sites with 2 between 25 and 50ac., 4 between 50 and 100 ac. and one between 100 and 250 ac.
- Tier 3 - 2 sites with one between 100 and 250 ac. and one greater than 250 ac.
- Tier 4 - 1 site between 100 and 250 ac.

Locality	Tier	Available Sites	Largest Contiguous Acreage				
			< 25	25 - 50	50 - 100	100 - 250	250+
Brunswick		3					
	2	3		1	1	1	
Charlotte		1					
	3	1					1
Cumberland		1					
	2	1			1		
Lunenburg		2					
	2	2		1	1		
Mecklenburg		1					
	3	1				1	
Prince Edward		4					
	1	2					2
	2	1			1		
	4	1				1	
VGA Total		**12**	**0**	**2**	**4**	**3**	**3**
	1	**2**					**2**
	2	**7**		**2**	**4**	**1**	
	3	**2**				**1**	**1**
	4	**1**				**1**	

Of the 33 "Business Ready" rated sites in all of Region 3:

- Tier 1 - 4 sites with 2 between and 2 greater than 250 ac.
- Tier 2 - 25 sites with 1 less than 25 ac., 2 between 25 and 50ac., 21 between 50 and 100 ac. and one between 100 and 250 ac.
- Tier 3 - 2 sites with one between 100 and 250 ac. and one greater than 250 ac.
- Tier 4 - 2 sites with one between 100 and 250 ac. and one greater than 250 ac.

Locality	Tier	Available Sites	Largest Contiguous Acreage				
			< 25	25 - 50	50 - 100	100 - 250	250+
Region 3 Total		**33**	**1**	**4**	**21**	**3**	**4**
	1	**4**		**2**			**2**
	2	**25**	**1**	**2**	**21**	**1**	
	3	**2**				**1**	**1**
	4	**2**				**1**	**1**

Findings and Conclusions

After review of the available data on the business and industrial sites in Region 3, the findings and observations that can be gleaned from the data helps to answer the basic question; Is there an adequate supply of suitable sites that meet the preferred expansion and location criteria of Region 3's target industry clusters? The following are some of the findings related to this analysis:

- 84% of the VEDP listed sites (65 out of 77) are in the 8 localities along the Rt. 58 Corridor bordering North Carolina. If economic growth is desired throughout the region additional effort will be needed to develop suitable business and industrial sites in the northern localities and the VGA subregion.
- 91% of the listed sites (70 out of 77) have central water and sewer service and 87% (67) sites have natural gas service. Even with the availability of utility service there are very few sites rated as Tier 3 or 4 on the VEDP "Business Ready" rating scale.
- 61% (47) sites have contiguous acreage greater than 25 ac. leaving 33 that are less than 25 ac. It appears that the majority of the sites are best suited for businesses in two target industry clusters, high value agricultural products and advanced manufacturing and materials. There are fewer sites designed for businesses in healthcare and information technology/data center industry clusters.
- The Southern Virginia Mega Site at Berry Hill in Pittsylvania County has over 2000 ac. of contiguous developable land with a Tier 4 "Business Ready" rating. This site is uniquely positioned for location of a major manufacturing facility.
- 79% of the sites are in Enterprise Zones indicating a pro-business environment at the local government level. Data was not available on locally designated Technology

Zones. In addition to these incentive programs the localities often have established policies for providing incentives for varying levels of job creation and capital investment.

- Of the 33 sites with VEDP "Business Ready" ratings 25 are rated as Tier 2, 76%. Only 2 sites are rated Tier 4 and another 2 sites rated Tier 3. Significant investment will be necessary to increase the Tier ratings of sites throughout the region.
- A significate number of Tier 4 rated "Business Ready" sites, 4, have been recently purchased for future data center and information technology use. This has left the region with very few "Certified" Business Ready sites.
- If businesses Region 3 desires to increase business investment in healthcare, information technology/data centers industry clusters an assessment of suitability of sites, less than 25 acres, should be undertaken to be able to certify sites for use by these industry clusters.

Available Office, Industrial and Flex Buildings

The purpose of the analysis of available buildings within Region 3 is to determine if there is an adequate supply of suitable buildings to meet the projected demand for business expansion and location within the target industry clusters established by Region 3; 1) high value agricultural products, 2) advanced manufacturing and materials, 3) healthcare and 4) information technology/data centers.

Companies in the high-value agricultural products cluster, particularly forest products firms, and the advanced manufacturing and materials cluster, often require buildings that are; 1) industrial in character, 2) have high ceiling heights, greater than 20 ft., 3) allow for outside storage of raw materials and product inventory, 4) on a large site, greater than 20 acres, to accommodate truck circulation and outside storage and 5) larger than 50,000 sq. ft.

Companies in the healthcare cluster and information technology cluster typically require office space that is classified as Class A with high-speed telecommunications access. These companies can require space may be just a thousand sq. ft. to over 250,000 sq. ft.

Data centers have unique location requirements including; 1) access to significant energy supply necessary to power the computer servers and meet the HVAC requirements to keep the computer networks cool, 2) building and site security features and 3) redundant high-speed telecommunications connections to backbone . While larger data centers require large sites, smaller data centers can go into existing buildings in downtown locations.

The following table provides an overview of the preferred building criteria for many of the businesses in each of the target industry clusters.

Table 8

Industry Cluster	Preferred Building Selection Criteria							
	Building Size - sq. ft.	Site Size - acres	Utilities					Ceiling Height - ft.
			Water	Sewer	Gas	Advanced Broadband	Advanced Energy	
High-Value Agricultural Products	50,000 +	10 +	X	X	X			20 +
Advanced Manufacturing and Materials	100,000 +	10 +	X	X	X			20 +
Healthcare	5,000 +	NA				X		10 +
Information Technology	2,000 +	NA				X	X	10 +
Data Centers	10,000 +	NA	X	X		X	X	12 +

VEDP's comprehensive database of available sites and buildings in Virginia was used to analyze the number and character of Office, Industrial and Flex Buildings on the market as of August 2021. This analysis separately analyzed office buildings and industrial/flex buildings. This analysis reviewed office buildings by 1) the number of buildings available and Class A space, 2) those for sale or lease, and 3) those located in a designated Enterprise Zone or Hub Zone. The analysis also reviewed industrial/flex buildings by, 1) the number of buildings available with water, sewer and gas utilities available, 2) the size of space available in the building and 3) the ceiling height, 4) the size of the site and 5) those located in a designated Enterprise Zone or Hub Zone. The analysis tabulated the by locality, subregion (Virginia's Growth Alliance and the Southern Virginia Regional Alliance) and region as a whole.

Office Building Analysis

There are a total of 19 office buildings available in Region 3 with 7 "for sale" and 18 "for Lease". Of these office buildings, 5 are in the VGA subregion and 14 in the in the SVRA subregion. Danville and Brunswick County have most of the buildings with 9 in Danville and 4 in Brunswick County. Only 5 of the office buildings are classified as "Class A" office space with 4 of those in the SVRA subregion.

Table 9

Building Inventory Data - Office Buildings

For Sale or Lease, Class A

Locality	Building Total		For Sale	Lease	Class A
Brunswick	4		3	4	0
Mecklenburg	1		1	1	1
VGA Total	**5**		**4**	**5**	**1**
Danville	9		3	8	1
Halifax	2		0	2	1
Henry	1		0	1	0
Martinsville	2		0	2	2
SVRA Total	**14**		**3**	**13**	**4**
Region 3 Total	**19**		**7**	**18**	**5**

16 of the office buildings are in designated Enterprise Zones with 7 of them also located in designated Hub Zones.

Table 10

Building Inventory Data - Office Buildings				
Zone Designation				
Locality	**Building Total**		**Enterprise Zone**	**Hub Zone**
Brunswick	4		4	0
Mecklenburg	1		1	1
VGA Total	**5**		**5**	**1**
Danville	9		6	2
Halifax	2		2	1
Henry	1		1	1
Martinsville	2		2	2
SVRA Total	**14**		**11**	**6**
Region 3 Total	**19**		**16**	**7**

The distribution of buildings is evenly spread across various size categories with 2 buildings in the less than 5,000 sq. ft. size category, 3 in the 5,000 to 10,000 sq. ft. size category, 5 in the 10,000 to 20,000 sq, ft. category, 6 in the 20,000 to 50,000 s. ft. category and 3 are greater than 50,000 sq. ft.

Table 11

Office Buildings							
Size							
Locality	Building Total		Size - Sq. Ft.				
			Less than 5,000	5,000 - 10,000	10,000 - 20,000	20,000 - 50,000	50,000+
Brunswick	4		1	1	2	0	0
Mecklenburg	1		0	1	0	0	0
VGA Total	**5**		**1**	**2**	**2**	**0**	**0**
Danville	9		0	0	3	4	2
Halifax	2		1	1	0	0	0
Henry	1		0	0	0	1	0
Martinsville	2		0	0	0	1	1
Southern VA Total	**14**		**1**	**1**	**3**	**6**	**3**
Region 3 Total	**19**		**2**	**3**	**5**	**6**	**3**

Industrial/Flex Buildings

There are 42 industrial/flex buildings in the region with 29 (69%) located in the SVRA subregion and 13 (21%) located in the VGA subregion. Of these 95% have central water and sewer utilities to the building and 85% have gas available to the building. 69% of the buildings are in the SVRA subregion and 21% in the VGA subregion. All but one building is locate in localities that are on the Rt. 58 corridor.

Table 12

Industrial and Flex Buildings					
Utilities					
Locality	**Building Total**		**Water**	**Sewer**	**Gas**
Brunswick	3		3	3	3
Charlotte	1		1	1	1
Mecklenburg	9		9	9	8
VGA Total	13		13	13	12
Danville	7		7	7	7
Halifax	6		6	6	3
Henry	9		8	8	7
Martinsville	4		4	4	4
Pittsylvania	3		3	2	3
SVRA Total	29		28	27	24
Region 3 Total	42		41	40	36

Of the 42 buildings in the region none of them are greater than 250,000 sq. ft. - 7 are between 10,000 sq. ft. and 25,000 sq. ft., 7 are between 25,000 and 50,000 sq. ft., 11 are between 50,000 and 100,000 sq. ft. and 13 are between 100,000 and 250,000 sq. ft. Both subregions have an even distribution of buildings in the various size categories.

Table 13

Industrial and Flex Buildings							
Size with Utilities							
Locality	Building Total		Size with W&S - sq. ft.				
			10K - 25K	25-50K	50K - 100K	100K - 250K	250K +
Brunswick	3		2	2	0	0	0
Charlotte	1		0	0	1	0	0
Mecklenburg	9		0	1	4	3	0
VGA Total	13		2	3	5	3	0
Danville	7		1	0	1	5	0
Halifax	6		2	0	1	2	0
Henry	9		1	3	2	2	0
Martinsville	4		1	1	2	0	0
Pittsylvania	3		0	0	0	1	0
SVRA Total	29		5	4	6	10	0
Region 3 Total	42		7	7	11	13	0

One key characteristic of buildings suitable for manufacturing and logistics/distribution use is the ceiling height of the building. Typically, these uses require ceiling heights greater than 20 ft. to be able to accommodate the equipment associated with the manufacturing process or storage of materials and inventory. Of the 42 buildings available across the region most of them, 31 (74%), have ceiling heights less than 20 ft. 13 buildings have ceiling heights between 20 and 30 ft. and only one has a ceiling height over 30 ft. Larger distribution/logistics facilities often prefer ceiling heights greater than 30 ft.

Table 14

Industrial and Flex Buildings					
Ceiling Height					
Locality	Building Total		Ceiling Height		
			< 20 ft.	20 - 30 Ft.	30 Ft. +
Brunswick	3		2	1	0
Charlotte	1		1	0	0
Mecklenburg	9		5	4	0
VGA Total	13		8	5	0
Danville	7		6	1	0
Halifax	6		5	5	0
Henry	9		7	1	1
Martinsville	4		3	0	0
Pittsylvania	3		2	1	0
Southern VA Total	29		23	8	1
Region 3 Total	42		31	13	1

Advanced manufacturing and high-value natural resource product companies often prefer buildings on sites where they can expand operations in the future. Sites greater than 20 acres typically provide acreage for future expansion of operation. Only 9 of the 42 buildings, 21%, are on sites greater than 20 acres. This may limit the attractiveness of the region to larger manufacturing or high-value natural resource product operations.

Table 15

Industrial and Flex Buildings						
Site Size						
Locality	**Building Total**		**Site Size - Acres**			
			< 5	**5 to 10**	**10 to 20**	**20 +**
Brunswick	3		2	0	1	0
Charlotte	1		0	0	1	0
Mecklenburg	9		0	3	4	2
VGA Total	13		2	3	6	2
Danville	7		1	1	4	1
Halifax	6		3	0	2	1
Henry	9		2	3	3	1
Martinsville	4		0	0	1	3
Pittsylvania	3		0	0	2	1
SVRA Total	29		6	4	12	7
Region 3 Total	42		8	7	18	9
% of total			19%	17%	43%	21%

Two thirds (28) of the available buildings are in Enterprise Zones and 24 of these buildings are in federally designated HUB Zones.

Table 16

Industrial and Flex Buildings – Zone Designation				
Locality	**Building Total**		**Enterprise Zone**	**HUB Zone**
Locality	**Building Total**		**Enterprise Zone**	**HUB Zone**

Brunswick	3		3	1
Charlotte	1		0	0
Mecklenburg	9		5	8
VGA Total	13		8	9
Danville	7		7	1
Halifax	6		4	3
Henry	9		5	7
Martinsville	4		3	4
Pittsylvania	3		1	0
Southern VA Total	29		20	15
Region 3 Total	42		28	24

Findings and Conclusions

After review of the available data on the available office, industrial and flex buildings in Region 3, below are the findings and observations that can be gleaned to answer the basic question: Is there an adequate supply of suitable buildings meet the preferred expansion and location criteria of Region 3's target industry clusters? The following are some of the findings related to this analysis:

- Overall, there is a limited number and variety of buildings listed on the VEDP website.
- All 19 of the office buildings listed on the VEDP website are in 6 localities along the Rt. 58 Corridor bordering North Carolina. All but one of the 42 industrial/flex buildings are in 7 localities along the Rt. 58 Corridor bordering North Carolina. If economic growth is desired throughout the region additional effort will be needed to develop and market suitable office, industrial and flex buildings in the northern localities of Region 3.
- There are only 5 Class A office buildings listed. If further expansion in the healthcare and information technology sectors is desired, then additional Class A office space will be required.
- It appears that there are few buildings that are well suited for data centers. An assessment of suitability of the existing inventory of buildings for data center use should be undertaken followed by a targeted marketing campaign for those that are uniquely positioned as a data center.

VEDP Project Pipeline and the Relationship to Target Industry Clusters

The purpose of the analysis of VEDP Project Referrals, Projects, Announcements is to determine the level of prospect activity across the region, the distribution on that activity among the localities, the distribution of that activity among various industry classifications and the relationship to the identified target industry clusters: 1) high value agricultural products, 2) advanced manufacturing and materials, 3) healthcare and 4) information technology/data centers.

A comprehensive database of VEDP referrals, projects and announcement by locality for 2018, 2019, 2020 and the first six months of 2021 was made available by VEDP for use in this analysis. The analysis will start with a review of the referrals from 2018 to June 30, 2021, among the localities then review the announcements for the same time period and conclude with a comparison of the referrals, projects and announcements to the target industry clusters as represented by specific 6 digit NAICS codes adopted by the Region 3 Council. At the end of this analysis is a summary of findings and conclusions of the analysis.

VEDP Referral Data Analysis

Project referrals were concentrated in 5 localities along the North Carolina border. The City of Danville, Mecklenburg, Halifax, Pittsylvania, and Henry Counties received 80.3% of the referrals from VEDP. Of the 577 referrals made between January 2018 and June 30, 2021, there was a 32% drop-off during 2020 as a result of the economic slowdown during the COVID-19 pandemic. While this drop-off was significant, it is better than what was expected given the dire economic conditions during that year. If referrals keep on pace for all of 2021, they will exceed both 2018 and 2019 referrals.

Table 17

VEDP Referrals by Year						
Locality	**Total Referrals**	**% of Total**	**2018**	**2019**	**2020**	**2021**
Amelia	11	1.9%	5	3	2	1
Brunswick	27	4.7%	7	5	6	9
Buckingham	1	0.2%		1		
Charlotte	22	3.8%	7	11	3	1
Cumberland	6	1.0%	3	3		
Lunenburg	4	0.7%		4		
Mecklenburg	127	22.0%	41	47	27	12
Nottoway	12	2.1%	4	4	2	2
Prince Edward	15	2.6%	3	5	5	2

VGA Total	**225**	**39.0%**	**70**	**83**	**45**	**27**
Danville	58	10.1%	16	16	13	13
Halifax	41	7.1%	12	16	5	8
Henry	121	21.0%	44	30	28	19
Martinsville	13	2.3%	3	1	6	3
Patrick	3	0.5%				3
Pittsylvania	116	20.1%	36	33	26	21
SVRA	**352**	**61.0%**	**111**	**96**	**78**	**67**

Total	**577**	**100.0%**	**181**	**179**	**123**	**94**
% of Total			31.4%	31.0%	21.3%	16.3%

89% of all project referrals from VEDP were out-of-state companies. Only 11% were for Virginia companies wishing to expand in the Commonwealth. Again, the distribution of referrals among the localities for out-of-state companies mirrored the referrals for all companies.

Table 18

VEDP Referrals 2018 to 6/30/2021			
Project Status			
Locality	**Referrals**	**New to VA**	**%**
Amelia	11	10	1.9%
Brunswick	27	23	4.5%
Buckingham	1	0	0.0%
Charlotte	22	19	3.7%
Cumberland	6	5	1.0%

Lunenburg	4	3	0.6%
Mecklenburg	127	114	22.1%
Nottoway	12	10	1.9%
Prince Edward	15	13	2.5%
VGA	**225**	**197**	**38.3%**
Danville	58	49	9.5%
Halifax	41	37	7.2%
Henry	121	113	21.9%
Martinsville	13	9	1.7%
Patrick	3	2	0.0%
Pittsylvania	116	108	21.0%
SVRA	**352**	**318**	**61.7%**
Total	**577**	**515**	
% of Total		89.3%	

Of the 577 referrals made 19.8% (114) are still active. These are more recent projects with roughly a third in the information gathering stage, roughly another third in the potential lead stage and another 10% in the proposal stage. Approximately 19% (10) of the active projects have committed to locate/expand in Virginia and are in the pre-announcement stage. All 10 of these companies are in four of the five localities mentioned above, City of Danville, Mecklenburg, Pittsylvania, and Henry Counties.

Table 19

VEDP Referrals 2018 to 6/30/2021						
Project Status						
Locality	**Active**					
	Total	**Information Gathering**	**Potential Lead**	**Proposal**	**Active**	**Pre-announcement**
Amelia	2	0	0	1	1	0
Brunswick	11	4	4	1	2	0
Buckingham	0	0	0	0	0	0
Charlotte	4	1	1	0	2	0
Cumberland	0	0	0	0	0	0
Lunenburg	0	0	0	0	0	0
Mecklenburg	16	5	7	1	3	2
Nottoway	4	1	1	1	1	0
Prince Edward	5	2	0	0	3	0
VGA	**42**	**13**	**13**	**4**	**12**	**2**
Danville	12	5	5	1	1	2
Halifax	7	2	3	1	1	0
Henry	24	8	11	2	3	2
Martinsville	3	1	1	0	1	0
Patrick	3	2	0	1	0	0
Pittsylvania	23	7	10	2	4	4
SVRA	**72**	**25**	**30**	**7**	**10**	**8**
Total	**114**	**38**	**43**	**11**	**22**	**10**
% of Total	19.8%	33.3%	37.7%	9.6%	19.3%	8.8%

Of the 577 referrals made during the analysis period, 80% (463) are no longer active – they have been closed. Of these inactive/closed projects two thirds, 305, of the companies disengaged - stopped considering Virginia for location/expansion. 112 companies, 24%, decided to locate elsewhere and 36 of the referral , 7.8%, decided to locate in Virginia. It is interesting to note that of the referrals that ended up choosing Virginia 52.8% of those considered the VGA subregion versus 47.2% considered the SVRA subregion. The data does not reveal if these companies chose to locate in Region 3 or some other Virginia locality. The analysis of the announcement data will provide more clarity on prospect locations in Region 3.

Table 20

VEDP Referrals 2018 to 6/30/2021					
Project Status					
	Closed				
Locality	**Total**	**Lost**	**Disengaged**	**Won**	**%**
Amelia	9	3	5	1	2.8%
Brunswick	16	4	11	1	2.8%
Buckingham	1	0	1	0	0.0%
Charlotte	18	6	9	3	8.3%
Cumberland	6	0	6	0	0.0%
Lunenburg	4	0	4	0	0.0%
Mecklenburg	109	26	72	11	30.6%
Nottoway	8	0	6	2	5.6%
Prince Edward	10	2	7	1	2.8%
VGA	**181**	**41**	**121**	**19**	**52.8%**
Danville	44	10	31	3	8.3%
Halifax	34	8	23	3	8.3%
Henry	95	28	61	6	16.7%
Martinsville	10	2	8	0	0.0%

Patrick	0	0	0	0	0.0%
Pittsylvania	99	23	61	5	13.9%
SVRA	**282**	**71**	**184**	**17**	**47.2%**
Total	**463**	**112**	**305**	**36**	
% of Total	80.2%	24.2%	65.9%	7.8%	

484 (84%) of the 577 referrals were manufacturing companies, 21 (4%) were distribution related companies, 17 (3%) were life science companies, 23 (4%) were corporate services companies, and 11 (2%) were information technology companies. Of the manufacturing referrals, 66 (13.6%) were wood products companies and 100 (21%) were food and beverage companies. Information technology and distribution company referrals were more prevalent in the VGA subregion while food and beverage and life sciences company referrals were more prevalent in the SVRA subregion.

Table 19

VEDP Referrals 2018 to 6/30/2021										
Industry Sector										
		Manufacturing								
Locality	**Total**	**Manuf. Total**	**Wood Products**	**Food and Beverage**	**Other**	**Supply Chain/ Dist.**	**Life Sciences**	**Corp. Services**	**Info/ Comm. Tech**	**Other**
Amelia	11	8	2	0	6	2	0	0	0	1
Brunswick	27	23	4	5	14	0	1	2	0	1
Buckingham	1	0	0	0	0	0	0	1	0	0
Charlotte	22	20	7	1	12	1	0	1	0	0
Cumberland	6	4	1	0	3	0	0	1	0	1
Lunenburg	4	2	1	0	1	1	0	1	0	0
Mecklenburg	127	107	12	22	73	6	3	2	5	4
Nottoway	12	10	6	0	4	1	0	1	0	0
Prince Edward	15	9	3	0	6	1	0	2	0	1
VGA	**225**	**183**	**36**	**28**	**119**	**12**	**4**	**11**	**5**	**8**
Danville	58	44	5	8	31	1	4	4	3	2
Halifax	41	32	5	5	22	2	3	1	3	0
Henry	121	109	12	28	69	3	2	2	0	5
Martinsville	13	6	1	1	4	2	0	4	0	1
Patrick	3	3	2	0	1	0	0	0	0	0
Pittsylvania	116	107	5	30	72	1	4	1	0	3
SVRA	**352**	**301**	**30**	**72**	**199**	**9**	**13**	**12**	**6**	**11**
Total	**577**	**484**	**66**	**100**	**318**	**21**	**17**	**23**	**11**	**19**
% of Total		83.9%	11.4%	17.3%	55.1%	3.6%	2.9%	4.0%	1.9%	3.3%

VEDP Announcement Data Analysis

While the VEDP referral data provides insight into the type, quantity and distribution of business prospects considering Region 3 for expansion or location, the announcement data illustrates the dimensions of business expansions/location across Region 3. The data provides a look at the types of businesses expanding in the region as well as the projected jobs and investment to be created.

Over the 3 ½ years that data was available 40 companies announced plans to expand. 87.5% of the companies planned to expand in the SVRA subregion and 12.5% in the VGA subregion.

There was an average of 12 announcements in 2018 and 2019 then a drop by a third to 9 announcements in 2020 likely because of the COVID-19 economic slowdown. The announcements rebounded in the first six months of 2021 and if this trend continues, 2021 should exceed 2018 and 2019 announcements. All of the 2021 announcements have occurred in the SVRA localities.

Table 22

VEDP Announcements - 2018 to 6/30/2021						
Announcements by year						
Locality	**Projects**	**%**	**2018**	**2019**	**2020**	**2021**
Cumberland	1	2.5%			1	
Brunswick	1	2.5%		1		
Mecklenburg	1	2.5%		1		
Nottoway	1	2.5%		1		
Prince Edward	1	2.5%	1			
VGA	**5**	**12.5%**	**1**	**3**	**1**	
Danville	5	12.5%	1	3		1
Halifax	1	2.5%			1	
Henry	11	27.5%	3	4	2	2
Patrick	2	5.0%			1	1
Pittsylvania	16	40.0%	6	3	4	3
SVRA	**35**	**87.5%**	**10**	**10**	**8**	**7**
Total	**40**	**100.0%**	**11**	**13**	**9**	**7**

% of Total			27.5%	32.5%	22.5%	17.5%

Of the 40 projects announced between January 2018 and June 30, 2021, 55% were companies new to Virginia and 45% were existing companies with a facility in Virginia. There were 5 localities that did not have a single announcement over the time period, Amelia, Buckingham, Charlotte, and Lunenburg Counties and the City of Martinsville. Five localities in the VGA subregion each had one announcement each. Danville and Halifax, Henry and Pittsylvania Counties announced 33 projects, 82.5% of all announcements.

Table 23

VEDP Announcements - 2018 to 6/30/2021			
New to VA or Existing VA Companies			
	Projects	**New to VA**	**Existing VA Companies**
Cumberland	1	1	
Brunswick	1	1	
Mecklenburg	1		1
Nottoway	1		1
Prince Edward	1		1
VGA	**5**	**2**	**3**
Danville	5	4	1
Halifax	1	1	
Henry	11	5	6
Patrick	2	1	1
Pittsylvania	16	9	7
SVRA	**35**	**20**	**14**
Total	**40**	**22**	**18**
% of Total		55%	45%

While 80% of the referrals were manufacturing companies, two-thirds of the announcements were manufacturing companies. This difference may be explained by the fact that a single prospect is often "referred" to several localities in the region. 2 distribution related companies, 2 corporate services companies and 1 information technology company made announcements over the 3 ½ time period.

Table 24

VEDP Announcements - 2018 to 6/30/2021

Industry Sector									
		Manufacturing				Supply Chain/ Dist.	Life Sciences	Corp. Services	Other
	Total	Manuf. Total	Wood Products	Food and Beverage	Other				
Cumberland	1	1			1				
Brunswick	1							1	
Mecklenburg	1	1	1						
Nottoway	1					1			
Prince Edward	1	1			1				
VGA	**5**	**3**	**1**	**0**	**2**	**1**	**0**	**1**	**0**
Danville	5	3		1	2			1	1
Halifax	1	1		1					
Henry	11	8	3	1	4	1			2
Patrick	2	1	1						1
Pittsylvania	16	11	2	2	7		1		4
SVRA	**35**	**24**	**6**	**5**	**13**	**1**	**1**	**1**	**8**
Total	**40**	**27**	**7**	**5**	**15**	**2**	**1**	**2**	**8**
% of Total		**67.5%**	**17.5%**	**12.5%**	**37.5%**	**5.0%**	**2.5%**	**5.0%**	**20.0%**

The 40 project announcements represented 3,551 jobs and $642,588,700 in investment. The SVRA subregion represented 91% of the announce jobs and 93.5% of the investment. There was an average of 89 jobs and $16,064,718 per project which is $180,705 of investment per job. The high percentage of manufacturing companies represented in the announcements likely contributed to the high level of investment per job.

Table 25

VEDP Announcements - 2018 to 6/30/2021

Jobs and Investment

	Jobs	%	Investment	%
Cumberland	52	1.5%	$31,650,000	4.9%
Brunswick	153	4.3%	$549,900	0.1%
Mecklenburg	10	0.3%	$3,500,000	0.5%
Nottoway	75	2.1%	$2,500,000	0.4%
Prince Edward	34	1.0%	$3,408,500	0.5%
VGA	**324**	**9.1%**	**$41,608,400**	**6.5%**
Danville	558	15.7%	$96,640,600	15.0%
Halifax	20	0.6%	$2,935,000	0.5%
Henry	860	24.2%	$269,001,700	41.9%
Patrick	177	5.0%	$12,800,000	2.0%
Pittsylvania	1612	45.4%	$219,603,000	34.2%
SVRA	**3227**	**90.9%**	**$600,980,300**	**93.5%**
Total	**3551**	**100.0%**	**$642,588,700**	**100.0%**

Target Industry Cluster NAICS Code Analysis

When the Region 3 regional council adopted the 4 target industry sectors as a part of the 2019 Growth and Diversification Plan it adopted a listing of 6-digit North American Industrial Classification System (NAICS) industries that represent each sector. An analysis of these NAICS codes as compared to the VEDP referrals, projects and announcements was made to determine the performance of the region related to each target industry sector.

Of the 577 VEDP referrals a total of 202 (35%) were in the four industry clusters, High Value Natural Recourse Products, Advanced Manufacturing and Materials, Business Services and Information Technology/Data centers and Healthcare. There were 90 different projects represented in those 202 referrals. There were 17 announcements in the target industry cluster, 42.5%, out of the total 40 announcements over the 3 ½ year period. There weren't any projects, announcements or announcements in the healthcare cluster. High Value Natural Resource Products represented

between 15% and 24% of the projects, referrals and announcements. Advanced Manufacturing and Materials represented between 52% and 61% of the projects, referrals and announcements. Business Services and Information Technology/Data Centers represented roughly 23% of the projects, referrals and announcements.

Table 26

VEDP Referrals, Projects and Announcement - 2018 to 6/30/2021						
Target Industry NAICS Codes						
	Target Industry Sector NAICS Codes - #					
	Referrals	%	Projects	%	Announcements	%
Target Industry Cluster Total	**202**		**90**		**17**	
High Value Natural Resource Products	41	20.3 %	14	15.6 %	4	23.5 %
Advanced Manufacturing and Materials	114	56.4 %	55	61.1 %	9	52.9 %
Business Services and IT/ Data Centers	47	23.3 %	21	23.3 %	4	23.5 %
Healthcare	0	0.0%	0	0.0%	0	0.0%

There are total of 164 different 6-digit NAICS Code categories in the target industry clusters, 17 in High Value Natural Resource Products, 69 in Advanced Manufacturing and Materials, 44 in Business Services and Information/Data Centers. 38 different 6-digit NAICS codes were represented in the 202 VEDP referrals and projects, and 11 different 6-digit NAICS codes were represented in the 17 VEDP announcement data.

There were no referrals, projects or announcements in the VEDP data that corresponded to the 34 different Healthcare Target Industry Cluster NAICS code categories.

Of the 17 High Value Natural Resource Product NAICS code categories, 7 (41%) were represented in the VEDP referrals and projects. Just 4 NAICS code categories were represented in the VEDP project announcement data.

Of the 69 Advanced Manufacturing and Materials NAICS code categories 26 (38%) were represented in the VEDP referrals and projects. Just 5 NAICS code categories were represented in the VEDP project announcement data.

Of the 44 Business Services Information Technology/Data Center NAICS code categories 5 (11%) were represented in the VEDP referrals and projects. Just 2 NAICS code categories were represented in the VEDP project announcement data.

Table 27

VEDP Referrals, Projects and Announcement - 2018 to 6/30/2021					
Target Industry Sector NAICS Code Industry Categories - 6 Digit					
Target Industry Clusters	**Total Categories**	**Referrals/ Projects Categories**	**%**	**Announcements Categories**	**%**
High Value Natural Resource Products	17	7	41.2%	4	23.5 %
Advanced Manufacturing and Materials	69	26	37.7%	5	7.2%
Business Services and IT/ Data Centers	44	5	11.4%	2	4.5%
Healthcare	34	0	0.0%	0	0.0%
Total	**164**	**38**	**23.2 %**	**11**	**6.7%**

Conclusions and Findings

The analysis of the VEDP project referral and project announcement data from January 2018 through June 30, 2021, for the individual localities, subregions and Region 3 yielded the following findings and conclusions:

- Of the 577 project referrals 80.2% (463) were concentrated in just 5 localities along the North Carolina border, the City of Danville, and Mecklenburg, Halifax, Pittsylvania, and Henry Counties.
- Of the 40 project announcements 80% (32) were in 3 localities along the North Carolina border, the City of Danville, Pittsylvania, and Henry Counties.
- The 40 project announcements represented 3,398 jobs and $642,038,800 in investment.
- The City of Danville and Henry and Pittsylvania Counties in the SVRA subregion represented 91.1% of the announced jobs and 93.5% of the private investment.

Table 28

VEDP Referrals and Announcements 2018 to 6/30/2021

	Referrals		Announcements					
Locality	**Number**	**%**	**Projects**	**%**	**Jobs**	**%**	**Investment**	**%**
Amelia	11	1.9%						
Brunswick	27	4.7%	1	2.5%	153	4.5%	$549,900	0.1%
Buckingham	1	0.2%						
Charlotte	22	3.8%						
Cumberland	6	1.0%	1	2.5%	52	1.5%	$31,650,000	4.9%
Lunenburg	4	0.7%						
Mecklenburg	127	22.0%	1	2.5%	10	0.3%	$3,500,000	0.5%
Nottoway	12	2.1%	1	2.5%	75	2.2%	$2,500,000	0.4%
Prince Edward	15	2.6%	1	2.5%	34	1.0%	$3,408,500	0.5%
VGA Total	**225**	**39.0%**	**5**	**12.5%**	**171**	**5.0%**	**$41,058,500**	**6.4%**
Danville	58	10.1%	5	12.5%	558	16.4%	$96,640,600	15.1%
Halifax	41	7.1%	1	2.5%	20	0.6%	$2,935,000	0.5%
Henry	121	21.0%	11	27.5%	860	25.3%	$269,001,700	41.9%
Martinsville	13	2.3%						
Patrick	3	0.5%	2	5.0%	177	5.2%	$12,800,000	2.0%
Pittsylvania	116	20.1%	16	40.0%	1612	47.4%	$219,603,000	34.2%
SVRA	**352**	**61.0%**	**35**	**87.5%**	**3227**	**95.0%**	**$600,980,300**	**93.6%**
Total	**577**	**100.0%**	**40**	**100.0%**	**3398**	**100.0%**	**$642,038,800**	**100.0%**

- While 89% (515) of project referrals were out-of-state companies, 55% (22) of the project announcements were out-of-state companies. This disparity between referrals and announcements is likely attributed to the fact that VEDP normally refers a business prospect to multiple localities within the region.
- 84% (484) of the project referrals were manufacturing companies, 4% (23) were corporate services companies, 4% (21) were distribution related companies, 3% (17) were life science

companies, and 2% (11) were information technology companies. While 84% of the referrals were manufacturing companies, 67.5% (27) of the announcements were manufacturing companies. This disparity between referrals and announcements, again, is likely attributed to the fact that VEDP normally refers a business prospect to multiple localities within the region. 2 distribution related companies, 2 corporate services companies and 1 information technology company made announcements over the 3 ½ year time period.

- 80% (463) of the project referrals are no longer active with 66% (305) of these disengaged - stopped considering Virginia for location/expansion. Only 7.8% (36) of the closed referrals decided to locate in Virginia and 24% deciding to locate outside of Virginia.
- There was an average of 89 jobs and $16,064,718 per announced project which is $180,705 of investment per job. The high percentage of manufacturing companies represented in the announcements likely contributed to the high level of investment per job.
- Of the 164 different 6-digit NAICS Code categories in the 4 target industry clusters, only 38 categories were represented in the VEDP referral/project data and only 11 in the announcement data. There were numerous instances where a company NAICS code was close to the target industry cluster list but was not included in the tabulation. The Region 3 Council may wish to either expand the listing of 6-digit NAICS codes or use 4-digit NAICS codes rather than the current 6-digit NAICS codes to be able to capture more of the VEDP project activity related to the target industry clusters.

Comparative Analysis of Sites/Buildings to VEDP Project Pipeline for 2019 and 2021

The purpose of the analysis is to determine if there is a correlation between the supply of business and industry sites and buildings within Region 3 and the VEDP Project Pipeline – Referrals and Announcements. The VEDP databases for the 2019 and 2021 Growth and Diversification Plan Updates used in the analysis are similar but not exact. Even with the differences in the data, the trends are the same between the two time periods. The VEDP pipeline data for 2019 spans the period 2015 through 2018 while the 2021 pipeline data covers the 2018 through June 30, 2021, time period. The 2018 data is included in both time periods. The sites and buildings data were taken from the VEDP database both in 2019 and 2021.

Sites and VEDP Pipeline Comparisons

The total number of business and industrial sites decreased 25% (26 sites) between 2019 and 2021. Several the sites listed in 2019 have been sold to business prospects and some may have been removed from the VEDP database. There was a similar decrease in sites served by central water and sewer, 21% (10 sites).

Of the total number of sites in 2019, 80% (82 sites) were located in just 6 of the 15 localities in Region 3, the Cities of Danville and Martinsville and the Counties of Mecklenburg, Halifax, Henry, and Pittsylvania. In 2019, 84% of the sites served by water and sewer were in these same 6 localities. In 2021, a similar pattern is present with 78% of all sites and 83% of the sites served by water and sewer in these same six localities.

Table 229

Site Inventory - 2019 & 2021

Locality	Sites 2019 Total %	Sites 2019 W & S %	Sites 2019 W & S >50 ac. %	Sites 2021 Total %	Sites 2021 W & S %	Sites 2021 W & S >25 ac. %
Amelia	1.1%	1.3%	0.0%	0.0%	0.0%	0.0%
Brunswick	3.2%	2.5%	3.2%	5.2%	5.7%	5.3%
Buckingham	6.3%	1.3%	3.2%	3.9%	2.9%	2.6%
Charlotte	1.1%	1.3%	3.2%	1.3%	1.4%	2.6%
Cumberland	2.1%	1.3%	0.0%	1.3%	0.0%	0.0%
Lunenburg	3.2%	1.3%	0.0%	3.9%	2.9%	5.3%
Mecklenburg	11.6%	10.0%	16.1%	6.5%	7.1%	5.3%
Nottoway	4.2%	3.8%	3.2%	0.0%	0.0%	0.0%
Prince Edward	6.3%	3.8%	3.2%	5.2%	2.9%	5.3%
VGA	**38.9%**	**29.2%**	**32.3%**	**27.3%**	**22.9%**	**26.3%**
Danville	26.3%	30.0%	22.6%	20.8%	22.9%	15.8%
Halifax	11.6%	10.0%	6.5%	14.3%	15.7%	15.8%
Henry	7.8%	10.0%	9.7%	13.0%	12.9%	15.8%
Martinsville	12.6%	15.0%	16.1%	2.6%	2.9%	0.0%
Patrick	0.0%	0.0%	0.0%	1.3%	1.4%	2.6%
Pittsylvania	10.0%	8.8%	12.9%	20.8%	21.4%	23.7%
SVRA	**64.1%**	**73.8%**	**67.7%**	**72.7%**	**77.1%**	**73.7%**
Region 3 #	**103**	**80**	**31**	**77**	**70**	**38**

The VEDP project pipeline for both time periods, 2015 – 2018 and 2018 – June 30, 2021, have very similar trends – VEDP project pipeline activity is concentrated along the southern portion of Region 3

bordering the North Carolina line. In 2019, 82% of VEDP recommendations and 72% of prospect visits were in 5 of the 15 Region 3 localities, the City of Danville and the Counties of Mecklenburg, Halifax, Henry, and Pittsylvania. In 2021, 80% of the VEDP project referrals were in these same 5 localities. 84% of VEDP project announcements were in 3 of the five localities, City of Danville and the Counties of Henry, and Pittsylvania. Over 90% of the announced jobs and investments were in these same 3 localities.

Table 30

VEDP Pipeline 2015 to 2018 and 2018 - June 30, 2021

	Recommendations/ Prospect Visits 2015 - 2018			Referrals and Announcements 2018 - 6/30/2021				
	Recommendations		Prospect Visits	Referrals		Announcements		
Locality	%		%	%		Projects %	Jobs %	Investment %
Amelia	3.4%		2.1%	1.9%		0.0%	0.0%	0.0%
Brunswick	2.9%		4.2%	4.7%		2.5%	4.5%	0.1%
Buckingham	0.6%		4.2%	0.2%		0.0%	0.0%	0.0%
Charlotte	3.5%		2.1%	3.8%		0.0%	0.0%	0.0%
Cumberland	0.8%		2.1%	1.0%		2.5%	1.5%	4.9%
Lunenburg	0.3%		1.0%	0.7%		0.0%	0.0%	0.0%
Mecklenburg	18.3%		9.4%	22.0%		2.5%	0.3%	0.5%
Nottoway	1.4%		4.2%	2.1%		2.5%	2.2%	0.4%
Prince Edward	1.9%		2.1%	2.6%		2.5%	1.0%	0.5%
VGA	**33.2%**		**31.3%**	**39.0%**		**12.5%**	**5.0%**	**6.4%**
Danville	9.6%		20.8%	10.1%		12.5%	16.4%	15.1%
Halifax	9.6%		11.5%	7.1%		1.5%	0.6%	0.5%
Henry	24.7%		15.6%	21.0%		27.5%	25.3%	41.9%
Martinsville	2.2%		5.2%	2.3%		0.0%	0.0%	0.0%

Patrick	1.1%	0.0%	0.5%	5.0%	5.2%	2.0%
Pittsylvania	20.1%	14.6%	20.1%	40.0%	47.4%	34.2%
SVRA	**66.8%**	**67.7%**	**61.0%**	**87.5%**	**95.0%**	**93.6%**
Region 3 #	**624**	**96**	**577**	**40**	**3398**	**$642,039 K**

There is a very strong correlation between the availability of business and industrial sites and VEDP prospect activity in both time periods, 2015 – 2018 and 2018 – June 30, 2021. The more prepared the sites are the greater the likelihood of business prospect activity and ultimately, business location or expansion at those sites. Those localities that had fewer than 5% of the sites received less than 5% VEDP referrals/recommendations and 5% or less of the project announcements.

Table 31

Sites Relationship to VEDP Pipeline (2015 - 2018 and 2018 - June 30, 2021)

Locality	Sites 2019 W & S %	2015 -2018 Recommendations %	Sites 2021 W & S %	2018 - 6/30/2021 Referrals %	Announcements Projects %
Amelia	1.3%	3.4%	0.0%	1.9%	0.0%
Brunswick	2.5%	2.9%	5.7%	4.7%	2.5%
Buckingham	1.3%	0.6%	2.9%	0.2%	0.0%
Charlotte	1.3%	3.5%	1.4%	3.8%	0.0%
Cumberland	1.3%	0.8%	0.0%	1.0%	2.5%
Lunenburg	1.3%	0.3%	2.9%	0.7%	0.0%
Mecklenburg	10.0%	18.3%	7.1%	22.0%	2.5%
Nottoway	3.8%	1.4%	0.0%	2.1%	2.5%
Prince Edward	3.8%	1.9%	2.9%	2.6%	2.5%
VGA	**29.2%**	**33.2%**	**22.9%**	**39.0%**	**12.5%**

Danville	30.0%	9.6%		22.9%	10.1%	12.5%
Halifax	10.0%	9.6%		15.7%	7.1%	1.5%
Henry	10.0%	24.7%		12.9%	21.0%	27.5%
Martinsville	15.0%	2.2%		2.9%	2.3%	0.0%
Patrick	0.0%	1.1%		1.4%	0.5%	5.0%
Pittsylvania	8.8%	20.1%		21.4%	20.1%	40.0%
SVRA	**73.8%**	**66.8%**		**77.1%**	**61.0%**	**87.5%**
Region 3 #	**80**	**624**		**70**	**577**	**40**

Building and VEDP Pipeline Comparisons

Those localities that had a significant inventory of available business and industrial sites also had a significant inventory of industrial and flex buildings. As a result, the correlation between availability of industrial and flex buildings and VEDP referrals and announcements is strong. Those localities with the largest number of industrial and flex buildings, the Cities of Danville and Martinsville and the Counties of Brunswick, Mecklenburg, Halifax, Henry, and Pittsylvania, 98% of the total, received the lion's share of the VEDP referrals, 85%, and announcements, 87%.

Table 32

Industrial Buildings & VEDP Pipeline

	Industrial and Flex Buildings						Referrals and Announcements 2018 - 6/30/2021				
			Water & Sewer			Ceiling Height			Announcements		
	Total			50K + sq. ft.		20 ft. +	Referrals		Projects	Jobs	Investment
Locality	%		%	%		%	%		%	%	%
Amelia	0.0%		0.0%	0.0%		0.0%	1.9%		0.0%	0.0%	0.0%
Brunswick	7.1%		7.5%	0.0%		9.1%	4.7%		2.5%	4.5%	0.1%
Buckingham	0.0%		0.0%	0.0%		0.0%	0.2%		0.0%	0.0%	0.0%
Charlotte	2.4%		2.5%	3.8%		0.0%	3.8%		0.0%	0.0%	0.0%

Cumberland	0.0%		0.0%	0.0%		0.0%		1.0%		2.5%	1.5%	4.9%
Lunenburg	0.0%		0.0%	0.0%		0.0%		0.7%		0.0%	0.0%	0.0%
Mecklenburg	21.4%		22.5%	34.6%		36.4%		22.0%		2.5%	0.3%	0.5%
Nottoway	0.0%		0.0%	0.0%		0.0%		2.1%		2.5%	2.2%	0.4%
Prince Edward	0.0%		0.0%	0.0%		0.0%		2.6%		2.5%	1.0%	0.5%
VGA	31.0%		32.5%	38.5%		45.5%		**39.0%**		**12.5%**	**5.0%**	**6.4%**

Danville	16.7%		17.5%	23.1%		9.1%		10.1%		12.5%	16.4%	15.1%
Halifax	14.3%		15.0%	11.5%		9.1%		7.1%		1.5%	0.6%	0.5%
Henry	21.4%		20.0%	15.4%		18.2%		21.0%		27.5%	25.3%	41.9%
Martinsville	9.5%		10.0%	7.7%		9.1%		2.3%		0.0%	0.0%	0.0%
Patrick	0.0%		0.0%	0.0%		0.0%		0.5%		5.0%	5.2%	2.0%
Pittsylvania	7.1%		5.0%	3.8%		9.1%		20.1%		40.0%	47.4%	34.2%
SVRA	69.0%		67.5%	61.5%		54.5%		**61.0%**		**87.5%**	**95.0%**	**93.6%**

Region 3 #	**42**		**40**	**26**		**11**		**577**		**40**	**3398**	**$642,039 K**

Those localities that had a significant inventory of available office buildings did not have a significant correlation between VEDP referrals and announcements. Only 6 localities in Region 3 had any office buildings listed in the VEDP sites and buildings database. The majority of VEDP prospect referrals and project announcements were manufacturing. It is safe to conclude that manufacturing businesses are not looking to locate/expand into office space. Greater availability of Class A office space and greater communications with VEDP would likely increase the number of referrals in corporate services and information technology referrals from VEDP.

Table 33

Office Buildings Relationship to VEDP Pipeline 2018 - June 30, 2021

	Office Buildings					Referrals and Announcements 2018 - 6/30/2021				
			Size - Sq. Ft.			Referrals		Announcements		
	Total		10,000 +		Class A			Projects	Jobs	Investment
Locality	%		%		%	%		%	%	%
Amelia	0.0%		0.0%		0.0%	1.9%		0.0%	0.0%	0.0%
Brunswick	21.1%		18.8%		0.0%	4.7%		2.5%	4.5%	0.1%
Buckingham	0.0%		0.0%		0.0%	0.2%		0.0%	0.0%	0.0%
Charlotte	0.0%		0.0%		0.0%	3.8%		0.0%	0.0%	0.0%
Cumberland	0.0%		0.0%		0.0%	1.0%		2.5%	1.5%	4.9%
Lunenburg	0.0%		0.0%		0.0%	0.7%		0.0%	0.0%	0.0%
Mecklenburg	5.3%		6.3%		20.0%	22.0%		2.5%	0.3%	0.5%
Nottoway	0.0%		0.0%		0.0%	2.1%		2.5%	2.2%	0.4%
Prince Edward	0.0%		0.0%		0.0%	2.6%		2.5%	1.0%	0.5%
VGA	26.3%		25.0%		20.0%	**39.0%**		**12.5%**	**5.0%**	**6.4%**
Danville	47.4%		56.3%		20.0%	10.1%		12.5%	16.4%	15.1%
Halifax	10.5%		0.0%		20.0%	7.1%		1.5%	0.6%	0.5%
Henry	5.3%		66.3%		0.0%	21.0%		27.5%	25.3%	41.9%
Martinsville	10.5%		12.5%		40.0%	2.3%		0.0%	0.0%	0.0%
Patrick	0.0%		0.0%		9.0%	0.5%		5.0%	5.2%	2.0%
Pittsylvania	0.0%		0.0%		0.0%	20.1%		40.0%	47.4%	34.2%
SVRA	73.7%		75.0%		80.0%	**61.0%**		**87.5%**	**95.0%**	**93.6%**
Region 3 #	**19**		**16**		**5**	**577**		**40**	**3398**	**$642,039 K**

Findings and Conclusions

This analysis of 6 ½ years of data from VEDP confirms what one might suspect, there is a direct and positive correlation between the availability of: 1) prepared business and industrial sites, and 2) suitable industrial and flex buildings with VEDP prospect activity and project announcements. Those localities that have invested in preparing industrial sites and constructing industrial buildings have reaped the benefits. They have seen 80% or more of project/recommendations from VEDP and more than 90% of announced jobs and investments for companies locating/expanding in those localities. The localities with a variety of prepared industrial sites and suitable industrial buildings have significant competitive advantage in locating new or expanding industries, particularly manufacturing operations, over those localities that lack these resources.

Appendix C

Stakeholder Input Sessions

Zoom Sessions Discussion Questions

Background:

As required by the Virginia Growth and Opportunity Act, the GO Virginia Region 3 Council is required to review and amend its economic *Growth and Diversification Plan* not less than biennially. The updated plan is due to be submitted to the Virginia Department of Housing & Community Development by **no later than December 31, 2021,** for consideration at the March 2022 GO Virginia State Board meeting. The overall goal of this plan update is to reevaluate the Region 3 Council's overall goals and strategic priorities, with a focus on accelerating economic recovery efforts in the near-term while supporting investments that will advance longer-term economic growth strategies within the Region.

To develop the 2021 Update to the G&D Plan, the Region 3 Council is using a variety of sources of input including empirical data that covers economic indicators, labor market gaps, entrepreneurial ecosystems and business-ready sites alignment, as well as virtual stakeholder engagement sessions, one-on-one interviews, and an electronic survey.

Discussion Questions:

To help with this discussion, a list of definitions for selected terms is included on Page 2 of this document.

- *Have you or someone you know had a first-hand experience with any of these four (4) categories of regional economic development? Tell us a little about that experience and what Region 3 may learn from it.*
- *Given the post-COVID economy, are these the growth industry sectors of the future for Region 3? Are there other clusters that could reshape the regional economy? What strategies are needed in today's economy to advance and strengthen these growth sectors?*
- *Do we have the "regional" organizational structure to implement new action strategies?*
- *Are there any stakeholder groups Region 3 should consider as regional economic development partners, particularly those groups which may be non-traditional when it comes to economic development?*

Definitions:

- **Business-ready sites:** commercial and industrial sites that have all of the planning, zoning, surveys, title work, environmental studies, soils analysis and public infrastructure engineering completed prior to putting the site up for sale and are under the legal control of a community or other third party.
- **Commercialization:** Commercialization is the process or cycle of introducing a new product or production method into the market.
- **Economic landscape:** the complex relationship between the economic activities of human society and their natural environment.
- **Lifestyle Businesses:** a business set up and run by its founders primarily with the aim of sustaining a particular level of income and no more; or to provide a foundation from which to enjoy a particular lifestyle.
- **Main Street Businesses:** A "Main Street business" is a colloquial term used by economists to refer collectively to America's independent small businesses. In another context, the term Main Street is used in contrast to Wall Street, with the latter referring to big business and high finance.
- **Offsite Infrastructure:** industrial or commercial sites that are supported by systems that include drainage, storm water, electrical, data and low voltage lines, gas lines, waste management and disposal, roads, open space etc.
- **Prospect**: A company that has identified a need for its growth and is seeking a location for a new investment that will create new jobs and capital investment in a community.
- **Skillsets**: a collection of skills and abilities that can be applied to a technical, professional or creative endeavor
- **Scale-Up**: the stage of growth of a business in which **revenue increases without a substantial increase in resources.**
- **Talent pool**: the suitable and skilled people who are available to be selected for a particular type of job.
- **Traded sector:** Businesses that generate most of their sales from out-of-state customers, resulting in new jobs, wages, and tax revenues for the. Commonwealth.
- **Workforce development programs:** employment initiatives offered by agencies, organizations and government offices that help create, sustain, and retain a viable workforce.

Notes from Stakeholder Session 1 – Workforce & Talent

1. Workforce development programs are good – the **participation by citizens, not so much**
2. R3 has an **"8AM – 5PM"** workforce training system – perhaps a culture that needs to change
3. "**Education is a business**"
4. **Economies of scale** are difficult in Region 3 – so it's important to align partners and programs to serve the employers
5. The geographic location on the **boundary of North Carolina** creates a **competitive challenge** – both for retention of talent, and also for training options; there are sometimes barriers to providing training for NC residents and sometimes barriers for VA residents to get training in NC, yet they all serve a cross-border regional business market
6. **Internships** work!
7. From a personal story: some interested young people are not aware of where to access information about career opportunities; **communication is a two-way street** and the workforce system is complex, and the potential candidates are highly diverse. How can we better connect?
8. The WIOA is seeing good outcomes from **On-the-Job training**, but it's flow of potential applicants has **slowed**
9. The wood products industry is booming, as is the distribution sector, and R3 **needs to "amp up" the talent pool** for these industries
10. There is a **deficiency in talent and training for IT and ISP companies** – i.e. cable splicers – and there is a need for **experienced trainers** in these sectors
11. How can Region 3 **better support existing training providers**, including higher education institutions?
12. Overall, the Region needs to be more **attentive** to employer needs.
13. In the health care sector, there is **significant competition** for talent from North Carolina.
14. Region 3 needs to **identify and promote career paths for IT sector**. It's growing and yet, unknown to potential applicants.
15. In higher education, the **retention and attraction of faculty** is a challenge – what can Region 3 do to help with this?

Notes from Stakeholder Session 2 – Business Ready Sites

1. Site development is **not a short term game**
2. There's a growing movement and support for a thought process for site development that addresses the "**why" the development is important**, as much or more than the "how"
3. Localities should look at **strategy when considering sites** and include an **analysis of the labor shed** to support development.
4. Site development also requires a commitment to **market the properties** (another cost).
5. There is a **changing culture** of how investment in sites is occurring.
6. The **carrying costs** of site development are significant and are a barrier
7. **GO Virginia and VEDP's resources** are crucial to helping offset carrying costs
8. Need to consider **that if Region 3 updates/changes its target sectors**, that will impact existing sites as well as consideration of new sites
9. The **political will** to make long-term investments is tough
10. The **time to sell** the properties is a barrier
11. The **process** of site development should be/is data-based (market potential, engineering costs, etc.) but **the leadership decision-making process is not rational**.
12. **State leadership** to help with the siting, costs and development of mega-sites would be beneficial, and could also address other barriers such as federal regulations
13. In terms of equity (east vs. west subregions) – consideration should be given to the fact that site development requires 1) strategy; and 2) marketing. Those **capabilities should be evaluated**.
14. Note that there is a trend toward clustering from some prospects – meaning, they are indicating that **supply chain opportunities will exist**, if they located in the region. Could the region help identify a better way to position sites for this model?
15. Could the Commonwealth consider creating an **incentive structure for megasite development** that would enable the Commonwealth to conduct the site selection, and provide investments in site development, by offering the "labor shed localities" to become part of a RIFA that would own the property?
16. There is a need for **continued education** of local elected officials about the "why" of site development.

Notes from Stakeholder Session 3 – Scale-up and Commercialization

1. There is a need to **build the manufacturing infrastructure** in Virginia – should incorporate this into R3 GD Plan? i.e. in addition to target sectors, focus on the supply chain businesses that create the infrastructure (tool & die) particularly as it relates to **"critical products"** which need to be manufactured in the US
2. Region 1 is home to a hemp processing facility. There are many diverse uses of hemp, and since this product is one that Region 3 agribusinesses are interested in developing, could the **two Regions consider a scale-up project that better connects the growers with the processors?**
3. Region 1 has funded a project called Project Thoroughbred – led by InvestSWVA. Purpose is to scale up farmers to diversify by producing **small batch hybrids** that can be supplied to end producers, thus creating new markets for farmers, stabilizing their revenue, and creating new products that promote VA agribusiness.
4. Region 3 needs to consider how to better leverage its resources when it is not "home" to a research university. **i.e. how can the Region engage Virginia Tech or UVA?**
5. Note that Region 1 leverages a number of **501-c-3 partners, as well as PDCs**, to generate projects. Can seem controversial because awards go to these orgs repeatedly, but they are the orgs that are experienced enough to implement a GO Virginia project. NOTE: Region 3 has done an assessment of existing orgs.
6. Note that **Ag Agents** may be an underutilized resource.
7. Barrier to growth for some entrepreneurial companies is **access to talent**; would be helpful to find resources that can connect in-Region talent with in-Region SMEs.
8. A barrier for local SMEs to grow is the perception that because they are **"home grown"** they are not as high-quality as companies outside the Region that provide the same service. Often those out-of-Region companies do not have the inside knowledge of the Region to be as effective in their work. How can Region 3 help "home-grown" companies be celebrated and recognized for their excellence?
9. **Small professional service firms** are integral to the success of the Region.
10. **SMEs can be excellent targets for scale-up**, particularly those tied to defense contracting. What can Region 3 do to assist?
11. **Examples** of SMEs that could scale are: High Tech in Buckingham; EIT in Danville; Applied Felts in Martinsville.
12. **Joe May** (EIT) is a serial investor and innovator and excellent speaker. How to use him in Region 3?
13. There is an **"Inventors Club" at Smith Mountain Lake** – could be mentors for young companies?
14. There used to be a **Women's Investor Club in Farmville** – need to validate and see how to engage
15. Region 3 should do an **environmental scan of businesses that have spun-off from major companies,** map opportunities for more scale-up
16. Region 1 created a **business-led thought leadership group of SMEs** that is convened regularly. The challenge for them is finding a problem to solve. Can R3 look into this as a model to replicate?
17. **"Good things happen when you put smart people in a room".** Region 3 needs to

utilize technology to create international connectivity and to remove barriers
18. **Young professionals** are not regularly part of the discussions about scale-up; how can Region 3 engage them?
19. Region 1 created a **portal for marketing successes** from the Region (internal promotion) and the portal has a backside that creates **B-2-B linkage (matchmaking).** How could the Bridge to Recovery platform be modified to replicate this?
20. Important to remember that **capital funding** is a barrier for SME Scale-Up. It is available in some sub-regions but is non-existent in others. Region 3 should focus on this.

Notes from Stakeholder Session 4 – Entrepreneurship

1. There is a full complement of business resources available with access to capital and technical assistance to capital as the greatest needs. How can resources be better **promoted** to be visible to entrepreneurs?
2. There is a need for a single point of contact for accessing resources.
3. The **image** of southern Virginia needs to move beyond tobacco and textiles – how can dynamic entrepreneurship help that? There is a need for a better way to share small business success stories.
4. **Mentorship and mentoring programs** are a most important tool to help entrepreneurs (this was repeated several times)
5. **Longwood's SBDC** is a good resource with broad geographic coverage but it is **not as visible as it needs to be** in terms of reaching entrepreneurs, greater marketing is needed.
6. Consider using **churches** as a platform for communication to entrepreneurs, especially **minority entrepreneurs**
7. Conversations with **state partner agencies** needs to occur regularly and consistently, so that time invested by regional partners is not wasted – sometimes state partners step in with new or different resources that **duplicate or at least do not leverage existing resources** in the Regions
8. Region 3 needs to focus on not just "starting" a business but also helping entrepreneurs **sustain, grow and pivot.** Mentorship can help with this.
9. **Early-stage education & training** for entrepreneurs will likely soon become an **open commodity**.
10. **Region 3 is blessed with "tons" of resources** – the key is getting that information into the minds of entrepreneurs – one of the most important ways to assist is with introductions to potential audiences for entrepreneurs' products or services. **Mentorship** can help here.
11. Some entrepreneurs are **hesitant** to reach out for assistance – whether due to fear of losing control of their product or service, or just not feeling comfortable with the service providers. How can Region 3 help build an **inclusive** network of service providers?
12. There is inequitable distribution of funding and resources to minority businesses
13. There is an effort underway to build a **Black-owned entrepreneur resource directory.**

14. **Virtual convening** is helpful and a way to better connect entrepreneurs to resources and to mentors.
15. Education about how to **bridge from launching a business to sustaining** a business is needed.
16. GENEDGE is headquartered in the Region and encourages continuation of **communication among the influencers and service providers in the Region**; this could help with sharing information requests and helping direct entrepreneurs to the resource that they need at any given time.
17. There is a need to establish a "entrepreneur provider network" to increase communication and establish relationships among providers.
18. Resource providers need to be comfortable **handing off an entrepreneur** to another resource provider if that is a better fit for the entrepreneur.
19. What is the current strength of **business retention/expansion** efforts in this Region, and how can the entrepreneurial strategy support that?
20. There is a gap between business start-up and business sustainability that needs to be filled.
21. Noted that for local government (economic developers) spending time in building an **entrepreneurial program is costly in terms of staff time, funding, and the long return-on-investment**.
22. Entrepreneurship support is **harder in counties than in cities,** where density of population can be an advantage.
23. Typically, the local economic development offices are not engaged in entrepreneurship development because of lack of resources, time and priorities of the elected officials.
24. In terms of promotion of entrepreneurial assets, could a **portal link be branded** and provided to use on websites of local economic development programs, regional ED, education partners, chambers of commerce, etc.?
25. How can the Region better engage **Chambers of Commerce** in this conversation?

Notes from Stakeholder Session 5 – All Topics

1. To advance the Region's strategies, solutions are needed to the current skilled **labor** shortage and to the **housing** shortage
2. An example of the impact of both **perception** and reality of labor availability is the loss of a Volvo project considering the MaMAC site in Greensville County; there was a perception of a lack of qualified workforce.
3. Example of successful training solution – the **Lineman training program at SVCC**. Perhaps applicable to other occupations such as **fiber network skills**?
4. The reasons that the Lineman program is successful is that it was targeted to the right candidates (adults in transition as well as youth) and the **employer consortium** demonstrated demand for the jobs. Program has enough applicants for the next three cohorts.
5. **Business partnerships are necessary** to produce the best results for talent attraction.
6. Consider programs like **"A Day in the Life of a Lineman"** as middle school introductions to technical jobs.

7. Note that Region 3 has historically not lacked in training programming content and that today, **many individuals can get their certifications online without formal educational institution programming**. How can Region 3 focus on Talent Attraction instead of Talent programming?
8. Note that **companies in the Region who are scaling up, are having difficulty finding the right talent.** Another reason to focus on talent attraction.
9. Also need to focus on **Innovation** (in contrast to Entrepreneurship). Innovation creates new products and services.
10. Sector focus: consider adding **Health Technology,** which is an aspect of technology development. TLP is seeing this as an area for growth.
11. Sector focus: consider continuing to invest in **broadband planning and implementation**. There are many financial resources available but GVR3 could be the convening and strategy partner for these investments, to leverage as many $$ as possible. This is important for careers in Health Technology as well as remote working and entrepreneurship.
12. Consider that it is most important to **collect "skillsets" and not "degrees**".
13. **Certifications** are of value to employers – need to emphasize this.
14. **Noted that employers are seeking applicants with "basic" skills –** reliability, good work habits, showing up on time, etc.
15. **Forest products remains an active and growing sector in R3.** All mills seem to be running at full speed. Future of their stability and growth may depend on the market for **biofuels** but it's likely that this sector will remain important to the Region's economy.
16. What strategies to recommend to achieve talent attraction goals? **Broadband, broadband, broadband.** This is expensive and this is necessary.
17. Also **housing, housing, housing**.
18. At the end of the day, **to achieve talent attraction goals, this Region needs to focus its investments on quality K-12 systems, medical facilities, housing, and broadband**.
19. The K-12 system needs to be revamped from the Commonwealth on down to local school divisions….need to consider new models of education such as those that incorporate **Career Academies**.
20. Mecklenburg's K-12 system is trying to focus on Career Tech but **barriers** include inability of industries to participate due to OSHA regs, insurance, etc.
21. Mecklenburg's K-12 is looking at "**badge**" programs that demonstrate skills success; they use the MARI system.
22. Note: in Mecklenburg, every industry is hiring and every industry indicates that they **can't find qualified workers**.
23. In terms of Talent Recruitment, the Region lacks organizational capacity to discuss this issue at the K-12 system level. **Can R3 convene Superintendents to discuss this?**
24. Talent Recruitment is ripe for innovation approaches – **consider convening a thought-leadership group around this topic to develop strategies**.
25. Ensure Longwood Office of Community & Economic Development is looking at **current job postings** as part of its labor analysis.
26. Are there organizations at the regional level that are able to implement strategies (i.e. for workforce, housing, etc.)? For broadband, in a subregion, yes – **Mecklenburg Electric Cooperative** is moving forward and its goal is fiber to every home.

27. **Virginia's Growth Alliance** could have been a regional partner to convene and the local economic developers are supportive of finding a way to continue this organization, but there is a lack of support from local governing bodies.
28. **Planning District Commissions** can be a convenor to help implement strategies.
29. **Longwood Office of Community & Economic Development** is an excellent resource to support start-up and small businesses across the entire footprint.
30. At the state level, the **Virginia Housing Authority** is working through PDCs to providing funding for housing, but otherwise there is no organization working regionally to address this issue.
31. Region 3 lacks the **organizational structure** for housing support AND lacks the **ability to scale up** housing initiatives.
32. However, Region 3 is home to a **strong modular home industry** that could be leveraged as part of a public/private strategy, making it possible to scale.
33. Considering engaging **Toll Brothers** in Greensville County as well as **Microsoft** in some partnership that could demonstrate ways to address housing and scaleup of the industry
34. Relevant examples of regional **housing strategy success** include: Mt. Rogers/People Inc.; Cumberland Plateau PDC; and the Eastern Shore of VA.
35. Are there other stakeholders to involve in the R3 G&D process? Note that **Danville and Pittsylvania County are in talks to combine their economic development organizations** – see Mark Gignac for more info.
36. What **vision** would you have for Region 3? SOVA would leverage its assets, have ample and talented workforce and workforce delivery systems, have sites aligned with business attraction goals, be a model of regional cooperation and collaboration, be known for its innovative public education systems, and be thoroughly connected via broadband. Success would be measured by increased wages, wage growth rate, household income, and business formation growth. Local organizations would support GO Virginia and Regional Economic Development Organizations.

Region 3 Individual Stakeholder Engagement

Timing	Stakeholder	Format
September	Local Economic Developers	Focus Group (virtual)
September	SVRA	Solo - virtual
September	VGA	Solo - virtual
September	Commonwealth Regional Council for northern subregion	Solo – virtual
September	Chambers of Commerce Exec Directors	Focus Group – virtual
September	Grant recipients (SVRA, IALR, SOVA Inno and LOCED)	Focus Group – virtual
October	Community College Presidents (SVCC, DCC, PHC)	Focus Group – virtual
October	4-year College designees (Averett, Longwood, Hampden Sydney)	Focus Group – virtual
October	Region 3 Executive Committee members	Solo – virtual
September	Institute of Higher Education (IALR, SVHEC, NCI)	Focus Group – virtual
September/October	K-12 Superintendents	Individually - virtual
October	GENEDGE	Solo – virtual
September	Broadband providers	Solo – virtual
September	Planning District Commissions	Focus Group - virtual
September	Primary Innovation Partners (TLP, DREE, SOVA Inno Hub, Longwood)	Solo - virtual
September	Community Foundations (Harvest, Danville Regional)	Solo - virtual
September	Local Government Administrators	Solo – virtual
September/October	Selected Business Leaders TBD	Solo – virtual
September	Virginia Economic Development Partnership – selected leaders	Focus Group - virtual
September	Virginia Tech Center for Economic and Community Engagement	Solo - Virtual
September	Virginia Department of Small Business and Supplier Diversity	Solo - Virtual
September	Tobacco Commission	Solo – Virtual

Appendix D

Strategic Partners

Alliances and partnerships have always been part of human history in all areas of life – from private to public and from politics to business. Companies have worked with partners across countries, businesses or within their value chains for a variety of reasons, whether from a desire to expand or a need to cut costs. Yet, in recent years the growth of partnerships has accelerated, driven by the benefits of risk sharing and resource pooling, technology convergence, and knowledge diffusion.

GO Virginia Region 3 relies on its strategic partners to inform, validate, challenge and expand. During the Growth & Diversification Plan Update many partners contributed, including those below:

Commonwealth Regional Council
Southside Planning District Commission
West Piedmont Planning District Commission
Southern Virginia Regional Alliance
Virginia's Growth Alliance
Danville Community College
Patrick & Henry Community College
Southside Virginia Community College
The Institute for Advanced Learning & Research
New College Institute
Southern Virginia Higher Education Center
Averett University
Hampden Sydney College
Longwood University
GENEDGE
Virginia Ed Strategies
Danville Regional Foundation
The Harvest Foundation
Dan River Region Entrepreneurial Ecosystem
Longwood Office of Community & Economic Development
SOVA Innovation Hub
The Launch Place
Chambers of Commerce in GO Virginia Region 3
Virginia Chamber of Commerce
Virginia Community Capital
Virginia Department of Housing & Community Development
Virginia Economic Development Partnership
Virginia Innovation Capital Corporation
University of Virginia
Virginia Tech

GO Virginia Region 3 Council Members

The leadership and stewardship of GO Virginia Region 3 is provided by the following Council members at the time of this Plan's update. Their contributions of time and intellect create the environment for success in Region 3. Their commitment is appreciated.

Randolph Lail, Benchmark Community Bank, Region 3 Chairman

Timothy Clark, Blair Construction, Region 3 Vice-Chairman

Robert Bates, Benchmark Community Bank

Scott Burnette, VCU Health Community Memorial Hospital

Melody Foster, Commonwealth Regional Council

Amy Griffin, Cumberland County Public Schools

Tim Hall, Henry County

Dr. Keith Harkins, Southside Virginia Community College

Rhonda Hodges, Patrick and Henry Community College

Charles Majors, American National Bank

James McClain, SW Virginia Energy Industries

John Parkinson, Drake Extrusion

Jeff Reed, Evergreen Advisors

Alfreda Reynolds, Brunswick County Economic Development

Jeremy Satterfield, Microsoft Corporation

Roger Scott, Eclipse Enterprises

Karl Stauber, Future of the Piedmont

Sherry Swinson, Hull Springs Farm of Longwood University

Lauren Willis, Bank of Charlotte County

Region 3 Staff Leadership

R. Bryan David, Program Manager

Deborah Gosney, Southside Planning District, Support Organization

Nancy Pool, Southside Planning District Commission

Appendix E

Target Traded Sectors 2021

GO Virginia Region 3

Traded and Target Sector Industry Cluster Definitions – Using 3-digit NAICS codes

Agriculture & Food Processing

- 311111: Dog and Cat Food Manufacturing
- 311119: Other Animal Food Manufacturing
- 311211: Flour Milling
- 311212: Rice Milling
- 311213: Malt Manufacturing
- 311221: Wet Corn Milling
- 311224: Soybean and Other Oilseed Processing
- 311225: Fats and Oils Refining and Blending
- 311230: Breakfast Cereal Manufacturing
- 311313: Beet Sugar Manufacturing
- 311314: Cane Sugar Manufacturing
- 311340: Nonchocolate Confectionery Manufacturing
- 311351: Chocolate and Confectionery Manufacturing from Cacao Beans
- 311352: Confectionery Manufacturing from Purchased Chocolate
- 311411: Frozen Fruit, Juice, and Vegetable Manufacturing
- 311412: Frozen Specialty Food Manufacturing
- 311421: Fruit and Vegetable Canning
- 311422: Specialty Canning
- 311423: Dried and Dehydrated Food Manufacturing
- 311511: Fluid Milk Manufacturing
- 311512: Creamery Butter Manufacturing
- 311513: Cheese Manufacturing
- 311514: Dry, Condensed, and Evaporated Dairy Product Manufacturing
- 311520: Ice Cream and Frozen Dessert Manufacturing
- 311611: Animal (except Poultry) Slaughtering
- 311612: Meat Processed from Carcasses
- 311613: Rendering and Meat Byproduct Processing
- 311615: Poultry Processing
- 311710: Seafood Product Preparation and Packaging
- 311811: Retail Bakeries
- 311812: Commercial Bakeries
- 311813: Frozen Cakes, Pies, and Other Pastries Manufacturing
- 311821: Cookie and Cracker Manufacturing
- 311824: Dry Pasta, Dough, and Flour Mixes Manufacturing from Purchased Flour

Agriculture & Food Processing, continued

- 311830: Tortilla Manufacturing
- 311911: Roasted Nuts and Peanut Butter Manufacturing
- 311919: Other Snack Food Manufacturing
- 311920: Coffee and Tea Manufacturing
- 311930: Flavoring Syrup and Concentrate Manufacturing
- 311941: Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing
- 311942: Spice and Extract Manufacturing
- 311991: Perishable Prepared Food Manufacturing
- 311999: All Other Miscellaneous Food Manufacturing
- 312111: Soft Drink Manufacturing
- 312112: Bottled Water Manufacturing
- 312113: Ice Manufacturing
- 312120: Breweries
- 312130: Wineries
- 312140: Distilleries

Business Services

- 541110: Offices of Lawyers
- 541191: Title Abstract and Settlement Offices
- 541199: All Other Legal Services
- 541211: Offices of Certified Public Accountants
- 541213: Tax Preparation Services
- 541214: Payroll Services
- 541219: Other Accounting Services
- 541310: Architectural Services
- 541320: Landscape Architectural Services
- 541340: Drafting Services
- 541410: Interior Design Services
- 541420: Industrial Design Services
- 541430: Graphic Design Services
- 541490: Other Specialized Design Services
- 541611: Administrative Management and General Management Consulting Services
- 541612: Human Resources Consulting Services
- 541613: Marketing Consulting Services
- 541618: Other Management Consulting Services
- 541810: Advertising Agencies
- 541820: Public Relations Agencies
- 541830: Media Buying Agencies
- 541840: Media Representatives
- 541850: Outdoor Advertising
- 541860: Direct Mail Advertising

Business Services, continued

- 541870: Advertising Material Distribution Services
- 541890: Other Services Related to Advertising
- 541910: Marketing Research and Public Opinion Polling
- 541930: Translation and Interpretation Services
- 541330: Engineering Services
- 541380: Testing Laboratories
- 541690: Other Scientific and Technical Consulting Services
- 541713: Research and Development in Nanotechnology
- 541715: Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)
- 541720: Research and Development in the Social Sciences and Humanities
- 541990: All Other Professional, Scientific, and Technical Services
- 551111: Offices of Bank Holding Companies
- 551112: Offices of Other Holding Companies
- 551114: Corporate, Subsidiary, and Regional Managing Offices
- 561210: Facilities Support Services
- 561311: Employment Placement Agencies
- 561312: Executive Search Services
- 561330: Professional Employer Organizations
- 561421: Telephone Answering Services
- 561422: Telemarketing Bureaus and Other Contact Centers

Energy, Natural Resources, & Finished Products

- 212111: Bituminous Coal and Lignite Surface Mining
- 212112: Bituminous Coal Underground Mining
- 212113: Anthracite Mining
- 212210: Iron Ore Mining
- 212221: Gold Ore Mining
- 212222: Silver Ore Mining
- 212230: Copper, Nickel, Lead, and Zinc Mining
- 212291: Uranium-Radium-Vanadium Ore Mining
- 212299: All Other Metal Ore Mining
- 212311: Dimension Stone Mining and Quarrying
- 212312: Crushed and Broken Limestone Mining and Quarrying
- 212313: Crushed and Broken Granite Mining and Quarrying
- 212319: Other Crushed and Broken Stone Mining and Quarrying
- 212321: Construction Sand and Gravel Mining
- 212322: Industrial Sand Mining
- 212324: Kaolin and Ball Clay Mining
- 212325: Clay and Ceramic and Refractory Minerals Mining
- 212391: Potash, Soda, and Borate Mineral Mining

Energy, Natural Resources, & Finished Products, continued

- 212392: Phosphate Rock Mining
- 212393: Other Chemical and Fertilizer Mineral Mining
- 212399: All Other Nonmetallic Mineral Mining
- 221111: Hydroelectric Power Generation
- 221112: Fossil Fuel Electric Power Generation
- 221113: Nuclear Electric Power Generation
- 221114: Solar Electric Power Generation
- 221115: Wind Electric Power Generation
- 221116: Geothermal Electric Power Generation
- 221117: Biomass Electric Power Generation
- 221118: Other Electric Power Generation
- 221121: Electric Bulk Power Transmission and Control
- 221122: Electric Power Distribution
- 221210: Natural Gas Distribution
- 221310: Water Supply and Irrigation Systems
- 221320: Sewage Treatment Facilities
- 321113: Sawmills
- 321114: Wood Preservation
- 321211: Hardwood Veneer and Plywood Manufacturing
- 321212: Softwood Veneer and Plywood Manufacturing
- 321213: Engineered Wood Member (except Truss) Manufacturing
- 321214: Truss Manufacturing
- 321219: Reconstituted Wood Product Manufacturing
- 321911: Wood Window and Door Manufacturing
- 321912: Cut Stock, Resawing Lumber, and Planing
- 321918: Other Millwork (including Flooring)
- 321920: Wood Container and Pallet Manufacturing
- 321992: Prefabricated Wood Building Manufacturing
- 321999: All Other Miscellaneous Wood Product Manufacturing
- 322110: Pulp Mills
- 322121: Paper (except Newsprint) Mills
- 322122: Newsprint Mills
- 322130: Paperboard Mills
- 322211: Corrugated and Solid Fiber Box Manufacturing
- 322212: Folding Paperboard Box Manufacturing
- 322219: Other Paperboard Container Manufacturing
- 322220: Paper Bag and Coated and Treated Paper Manufacturing
- 322230: Stationery Product Manufacturing
- 322291: Sanitary Paper Product Manufacturing
- 322299: All Other Converted Paper Product Manufacturing
- 337110: Wood Kitchen Cabinet and Countertop Manufacturing

Energy, Natural Resources, & Finished Products, continued

- 337121: Upholstered Household Furniture Manufacturing
- 337122: Nonupholstered Wood Household Furniture Manufacturing
- 337124: Metal Household Furniture Manufacturing
- 337125: Household Furniture (except Wood and Metal) Manufacturing
- 337127: Institutional Furniture Manufacturing
- 337211: Wood Office Furniture Manufacturing
- 337214: Office Furniture (except Wood) Manufacturing
- 337215: Showcase, Partition, Shelving, and Locker Manufacturing
- 337910: Mattress Manufacturing
- 541360: Geophysical Surveying and Mapping Services
- 541370: Surveying and Mapping (except Geophysical) Services
- 541620: Environmental Consulting Services

Health Care Services

- 621991: Blood and Organ Banks
- 622110: General Medical and Surgical Hospitals
- 622210: Psychiatric and Substance Abuse Hospitals
- 622310: Specialty (except Psychiatric and Substance Abuse) Hospitals

Information Technology & Communications Services

- 511210: Software Publishers
- 518210: Data Processing, Hosting, and Related Services
- 519130: Internet Publishing and Broadcasting and Web Search Portals
- 541511: Custom Computer Programming Services
- 541512: Computer Systems Design Services
- 541513: Computer Facilities Management Services
- 541519: Other Computer Related Services

Advanced Manufacturing and Advanced Materials

- 313110: Fiber, Yarn, and Thread Mills
- 313210: Broadwoven Fabric Mills
- 313220: Narrow Fabric Mills and Schiffli Machine Embroidery
- 313230: Nonwoven Fabric Mills
- 313240: Knit Fabric Mills
- 313310: Textile and Fabric Finishing Mills
- 313320: Fabric Coating Mills
- 314110: Carpet and Rug Mills
- 314120: Curtain and Linen Mills
- 314910: Textile Bag and Canvas Mills

Advanced Manufacturing and Advanced Materials, continued

- 314994: Rope, Cordage, Twine, Tire Cord, and Tire Fabric Mills
- 314999: All Other Miscellaneous Textile Product Mills
- 315110: Hosiery and Sock Mills
- 315190: Other Apparel Knitting Mills
- 315210: Cut and Sew Apparel Contractors
- 315220: Men's and Boys' Cut and Sew Apparel Manufacturing
- 315240: Women's, Girls', and Infants' Cut and Sew Apparel Manufacturing
- 315280: Other Cut and Sew Apparel Manufacturing
- 315990: Apparel Accessories and Other Apparel Manufacturing
- 316110: Leather and Hide Tanning and Finishing
- 316210: Footwear Manufacturing
- 316992: Women's Handbag and Purse Manufacturing
- 316998: All Other Leather Good and Allied Product Manufacturing
- 321991: Manufactured Home (Mobile Home) Manufacturing
- 323111: Commercial Printing (except Screen and Books)
- 323113: Commercial Screen Printing
- 323117: Books Printing
- 323120: Support Activities for Printing
- 324121: Asphalt Paving Mixture and Block Manufacturing
- 324122: Asphalt Shingle and Coating Materials Manufacturing
- 324191: Petroleum Lubricating Oil and Grease Manufacturing
- 324199: All Other Petroleum and Coal Products Manufacturing
- 325411: Medicinal and Botanical Manufacturing
- 325412: Pharmaceutical Preparation Manufacturing
- 325413: In-Vitro Diagnostic Substance Manufacturing
- 325414: Biological Product (except Diagnostic) Manufacturing
- 325110: Petrochemical Manufacturing
- 325120: Industrial Gas Manufacturing
- 325130: Synthetic Dye and Pigment Manufacturing
- 325180: Other Basic Inorganic Chemical Manufacturing
- 325193: Ethyl Alcohol Manufacturing
- 325194: Cyclic Crude, Intermediate, and Gum and Wood Chemical Manufacturing
- 325199: All Other Basic Organic Chemical Manufacturing
- 325211: Plastics Material and Resin Manufacturing
- 325212: Synthetic Rubber Manufacturing
- 325220: Artificial and Synthetic Fibers and Filaments Manufacturing
- 325311: Nitrogenous Fertilizer Manufacturing
- 325312: Phosphatic Fertilizer Manufacturing
- 325314: Fertilizer (Mixing Only) Manufacturing
- 325320: Pesticide and Other Agricultural Chemical Manufacturing
- 325510: Paint and Coating Manufacturing

Advanced Manufacturing and Advanced Materials, continued

- 325520: Adhesive Manufacturing
- 325611: Soap and Other Detergent Manufacturing
- 325612: Polish and Other Sanitation Good Manufacturing
- 325613: Surface Active Agent Manufacturing
- 325620: Toilet Preparation Manufacturing
- 325910: Printing Ink Manufacturing
- 325920: Explosives Manufacturing
- 325991: Custom Compounding of Purchased Resins
- 325992: Photographic Film, Paper, Plate, and Chemical Manufacturing
- 325998: All Other Miscellaneous Chemical Product and Preparation Manufacturing
- 326111: Plastics Bag and Pouch Manufacturing
- 326112: Plastics Packaging Film and Sheet (including Laminated) Manufacturing
- 326113: Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing
- 326121: Unlaminated Plastics Profile Shape Manufacturing
- 326122: Plastics Pipe and Pipe Fitting Manufacturing
- 326130: Laminated Plastics Plate, Sheet (except Packaging), and Shape Manufacturing
- 326140: Polystyrene Foam Product Manufacturing
- 326150: Urethane and Other Foam Product (except Polystyrene) Manufacturing
- 326160: Plastics Bottle Manufacturing
- 326191: Plastics Plumbing Fixture Manufacturing
- 326199: All Other Plastics Product Manufacturing
- 326211: Tire Manufacturing (except Retreading)
- 326212: Tire Retreading
- 326220: Rubber and Plastics Hoses and Belting Manufacturing
- 326291: Rubber Product Manufacturing for Mechanical Use
- 326299: All Other Rubber Product Manufacturing
- 327110: Pottery, Ceramics, and Plumbing Fixture Manufacturing
- 327120: Clay Building Material and Refractories Manufacturing
- 327211: Flat Glass Manufacturing
- 327212: Other Pressed and Blown Glass and Glassware Manufacturing
- 327213: Glass Container Manufacturing
- 327215: Glass Product Manufacturing Made of Purchased Glass
- 327310: Cement Manufacturing
- 327320: Ready-Mix Concrete Manufacturing
- 327331: Concrete Block and Brick Manufacturing
- 327332: Concrete Pipe Manufacturing
- 327390: Other Concrete Product Manufacturing
- 327410: Lime Manufacturing
- 327420: Gypsum Product Manufacturing
- 327910: Abrasive Product Manufacturing
- 327991: Cut Stone and Stone Product Manufacturing

Advanced Manufacturing and Advanced Materials, continued

- 327992: Ground or Treated Mineral and Earth Manufacturing
- 327993: Mineral Wool Manufacturing
- 327999: All Other Miscellaneous Nonmetallic Mineral Product Manufacturing
- 331110: Iron and Steel Mills and Ferroalloy Manufacturing
- 331210: Iron and Steel Pipe and Tube Manufacturing from Purchased Steel
- 331221: Rolled Steel Shape Manufacturing
- 331222: Steel Wire Drawing
- 331313: Alumina Refining and Primary Aluminum Production
- 331314: Secondary Smelting and Alloying of Aluminum
- 331315: Aluminum Sheet, Plate, and Foil Manufacturing
- 331318: Other Aluminum Rolling, Drawing, and Extruding
- 331410: Nonferrous Metal (except Aluminum) Smelting and Refining
- 331420: Copper Rolling, Drawing, Extruding, and Alloying
- 331491: Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding
- 331492: Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)
- 331511: Iron Foundries
- 331512: Steel Investment Foundries
- 331513: Steel Foundries (except Investment)
- 331523: Nonferrous Metal Die-Casting Foundries
- 331524: Aluminum Foundries (except Die-Casting)
- 331529: Other Nonferrous Metal Foundries (except Die-Casting)
- 332111: Iron and Steel Forging
- 332112: Nonferrous Forging
- 332114: Custom Roll Forming
- 332117: Powder Metallurgy Part Manufacturing
- 332119: Metal Crown, Closure, and Other Metal Stamping (except Automotive)
- 332215: Metal Kitchen Cookware, Utensil, Cutlery, and Flatware (except Precious) Manufacturing
- 332216: Saw Blade and Handtool Manufacturing
- 332311: Prefabricated Metal Building and Component Manufacturing
- 332312: Fabricated Structural Metal Manufacturing
- 332313: Plate Work Manufacturing
- 332321: Metal Window and Door Manufacturing
- 332322: Sheet Metal Work Manufacturing
- 332323: Ornamental and Architectural Metal Work Manufacturing
- 332410: Power Boiler and Heat Exchanger Manufacturing
- 332420: Metal Tank (Heavy Gauge) Manufacturing
- 332431: Metal Can Manufacturing
- 332439: Other Metal Container Manufacturing
- 332510: Hardware Manufacturing

Advanced Manufacturing and Advanced Materials, continued

- 332613: Spring Manufacturing
- 332618: Other Fabricated Wire Product Manufacturing
- 332710: Machine Shops
- 332721: Precision Turned Product Manufacturing
- 332722: Bolt, Nut, Screw, Rivet, and Washer Manufacturing
- 332811: Metal Heat Treating
- 332812: Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers
- 332813: Electroplating, Plating, Polishing, Anodizing, and Coloring
- 332911: Industrial Valve Manufacturing
- 332912: Fluid Power Valve and Hose Fitting Manufacturing
- 332913: Plumbing Fixture Fitting and Trim Manufacturing
- 332919: Other Metal Valve and Pipe Fitting Manufacturing
- 332991: Ball and Roller Bearing Manufacturing
- 332992: Small Arms Ammunition Manufacturing
- 332993: Ammunition (except Small Arms) Manufacturing
- 332994: Small Arms, Ordnance, and Ordnance Accessories Manufacturing
- 332996: Fabricated Pipe and Pipe Fitting Manufacturing
- 332999: All Other Miscellaneous Fabricated Metal Product Manufacturing
- 333111: Farm Machinery and Equipment Manufacturing
- 333112: Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing
- 333120: Construction Machinery Manufacturing
- 333131: Mining Machinery and Equipment Manufacturing
- 333132: Oil and Gas Field Machinery and Equipment Manufacturing
- 333241: Food Product Machinery Manufacturing
- 333242: Semiconductor Machinery Manufacturing
- 333243: Sawmill, Woodworking, and Paper Machinery Manufacturing
- 333244: Printing Machinery and Equipment Manufacturing
- 333249: Other Industrial Machinery Manufacturing
- 333314: Optical Instrument and Lens Manufacturing
- 333316: Photographic and Photocopying Equipment Manufacturing
- 333318: Other Commercial and Service Industry Machinery Manufacturing
- 333413: Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing
- 333414: Heating Equipment (except Warm Air Furnaces) Manufacturing
- 333415: Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing
- 333511: Industrial Mold Manufacturing
- 333514: Special Die and Tool, Die Set, Jig, and Fixture Manufacturing
- 333515: Cutting Tool and Machine Tool Accessory Manufacturing
- 333517: Machine Tool Manufacturing

Advanced Manufacturing and Advanced Materials, continued

- 333519: Rolling Mill and Other Metalworking Machinery Manufacturing
- 333611: Turbine and Turbine Generator Set Units Manufacturing
- 333612: Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing
- 333613: Mechanical Power Transmission Equipment Manufacturing
- 333618: Other Engine Equipment Manufacturing
- 333912: Air and Gas Compressor Manufacturing
- 333914: Measuring, Dispensing, and Other Pumping Equipment Manufacturing
- 333921: Elevator and Moving Stairway Manufacturing
- 333922: Conveyor and Conveying Equipment Manufacturing
- 333923: Overhead Traveling Crane, Hoist, and Monorail System Manufacturing
- 333924: Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing
- 333991: Power-Driven Handtool Manufacturing
- 333992: Welding and Soldering Equipment Manufacturing
- 333993: Packaging Machinery Manufacturing
- 333994: Industrial Process Furnace and Oven Manufacturing
- 333995: Fluid Power Cylinder and Actuator Manufacturing
- 333996: Fluid Power Pump and Motor Manufacturing
- 333997: Scale and Balance Manufacturing
- 333999: All Other Miscellaneous General Purpose Machinery Manufacturing
- 334111: Electronic Computer Manufacturing
- 334112: Computer Storage Device Manufacturing
- 334118: Computer Terminal and Other Computer Peripheral Equipment Manufacturing
- 334210: Telephone Apparatus Manufacturing
- 334220: Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing
- 334290: Other Communications Equipment Manufacturing
- 334310: Audio and Video Equipment Manufacturing
- 334412: Bare Printed Circuit Board Manufacturing
- 334413: Semiconductor and Related Device Manufacturing
- 334416: Capacitor, Resistor, Coil, Transformer, and Other Inductor Manufacturing
- 334417: Electronic Connector Manufacturing
- 334418: Printed Circuit Assembly (Electronic Assembly) Manufacturing
- 334419: Other Electronic Component Manufacturing
- 334510: Electromedical and Electrotherapeutic Apparatus Manufacturing
- 334511: Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
- 334512: Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use
- 334513: Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables
- 334514: Totalizing Fluid Meter and Counting Device Manufacturing

Advanced Manufacturing and Advanced Materials, continued

- 334516: Analytical Laboratory Instrument Manufacturing
- 334517: Irradiation Apparatus Manufacturing
- 334515: Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals
- 334519: Other Measuring and Controlling Device Manufacturing
- 334613: Blank Magnetic and Optical Recording Media Manufacturing
- 334614: Software and Other Prerecorded Compact Disc, Tape, and Record Reproducing
- 335110: Electric Lamp Bulb and Part Manufacturing
- 335121: Residential Electric Lighting Fixture Manufacturing
- 335122: Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing
- 335129: Other Lighting Equipment Manufacturing
- 335210: Small Electrical Appliance Manufacturing
- 335220: Major Household Appliance Manufacturing
- 335311: Power, Distribution, and Specialty Transformer Manufacturing
- 335312: Motor and Generator Manufacturing
- 335313: Switchgear and Switchboard Apparatus Manufacturing
- 335314: Relay and Industrial Control Manufacturing
- 335911: Storage Battery Manufacturing
- 335912: Primary Battery Manufacturing
- 335921: Fiber Optic Cable Manufacturing
- 335929: Other Communication and Energy Wire Manufacturing
- 335931: Current-Carrying Wiring Device Manufacturing
- 335932: Noncurrent-Carrying Wiring Device Manufacturing
- 335991: Carbon and Graphite Product Manufacturing
- 335999: All Other Miscellaneous Electrical Equipment and Component Manufacturing
- 336111: Automobile Manufacturing
- 336112: Light Truck and Utility Vehicle Manufacturing
- 336120: Heavy Duty Truck Manufacturing
- 336211: Motor Vehicle Body Manufacturing
- 336212: Truck Trailer Manufacturing
- 336213: Motor Home Manufacturing
- 336214: Travel Trailer and Camper Manufacturing
- 336310: Motor Vehicle Gasoline Engine and Engine Parts Manufacturing
- 336320: Motor Vehicle Electrical and Electronic Equipment Manufacturing
- 336330: Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing
- 336340: Motor Vehicle Brake System Manufacturing
- 336350: Motor Vehicle Transmission and Power Train Parts Manufacturing
- 336360: Motor Vehicle Seating and Interior Trim Manufacturing
- 336370: Motor Vehicle Metal Stamping
- 336390: Other Motor Vehicle Parts Manufacturing
- 336411: Aircraft Manufacturing
- 336412: Aircraft Engine and Engine Parts Manufacturing

Advanced Manufacturing and Advanced Materials, continued

- 336413: Other Aircraft Parts and Auxiliary Equipment Manufacturing
- 336414: Guided Missile and Space Vehicle Manufacturing
- 336415: Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing
- 336419: Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing
- 336510: Railroad Rolling Stock Manufacturing
- 336611: Ship Building and Repairing
- 336612: Boat Building
- 336991: Motorcycle, Bicycle, and Parts Manufacturing
- 336992: Military Armored Vehicle, Tank, and Tank Component Manufacturing
- 336999: All Other Transportation Equipment Manufacturing
- 337920: Blind and Shade Manufacturing
- 339112: Surgical and Medical Instrument Manufacturing
- 339113: Surgical Appliance and Supplies Manufacturing
- 339114: Dental Equipment and Supplies Manufacturing
- 339115: Ophthalmic Goods Manufacturing
- 339116: Dental Laboratories
- 339910: Jewelry and Silverware Manufacturing
- 339920: Sporting and Athletic Goods Manufacturing
- 339930: Doll, Toy, and Game Manufacturing
- 339940: Office Supplies (except Paper) Manufacturing
- 339950: Sign Manufacturing
- 339991: Gasket, Packing, and Sealing Device Manufacturing
- 339992: Musical Instrument Manufacturing
- 339993: Fastener, Button, Needle, and Pin Manufacturing
- 339994: Broom, Brush, and Mop Manufacturing
- 339995: Burial Casket Manufacturing
- 339999: All Other Miscellaneous Manufacturing

Region 3: Southside

Update on Entrepreneurial Trends: Phase 2 Analysis of Broader Innovation Ecosystem Measures

September 14, 2021

Data Sources used for Phase 2 Update of Entrepreneurial Trends

- **Academic R&D** – annual research expenditures from all sources by university reported by the National Science Foundation's Higher Education Research and Development Survey – no institutions in Region 3 report to HERD
- **Patent Activity of Inventors Residing in Region** – annual patents generated by residents in the region from U.S. Patent & Trademark Office data collected by Derwent Innovation
- **Venture Capital** – PitchBook database of private investor funding in emerging ventures, including pre-seed (accelerator and incubator funding), angel investor, seed and formal venture capital
- **Federal Small Business Innovation Research (SBIR) Awards** – SBIR funding by federal agencies to small businesses in the region as reported from SBIR.gov maintained by the U.S. Small Business Administration
- **SBA 7(a) Loan Activity** – Number of loans and loan amounts to small businesses in traded sector industries under SBA 7(a) financing vehicles as reported by the Small Business Administration

Patents Invented in the Region

- **What is it?** Patents are a primary way in which inventors are able to protect their innovations in products from being replicated.
- **Why it matters?** By focusing on patents generated by residents we are able to more accurately gauge the region's capacity to generate technology innovations. The patent classes help identify specific areas of technology innovation taking place in a region.

Total Patents, 2010-20

Region 3	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Patent Counts	13	16	27	18	29	24	27	36	38	34	53	315

Technology Class Area	Number of Patents, 2010-2020
transmission of digital information, e.g. telegraphic communication	20
optical elements, systems, or apparatus	14
semiconductor devices; electric solid state devices not otherwise provided for	10
containers for storage or transport of articles or materials	9
buildings or like structures for particular purposes; swimming or splash baths or pools; etc.	9
line connectors; current collectors	8
layered products, i.e. products built-up of strata of flat or non-flat, e.g. cellular or honeycomb, form	7
separation (separating solids from solids by wet methods; by pneumatic jigs or tables; by other dry methods; etc.)	6
cyclically operating valves for machines or engines	6
data processing systems or methods, specially adapted for administrative, commercial, financial, managerial, supervisory or forecasting purposes	5

Source: U.S. Patent & Trademark Office data from Derwent Innovation; TEConomy calculations.

Venture Capital Investments

- **What is it?** Venture capital represents equity investments made to emerging technology companies that offer high growth potential to generate sizable returns on that equity investment.
- **Why it matters?** Venture capital investments are a direct measure of innovation activity taking place in a region. Beyond the number of deals and investment taking place on an annual basis, it is important to also consider the stage at which investments are taking place to ensure a robust pipeline of emerging ventures being formed and gaining scale in a region.

Venture Capital Activity

Region 3	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Deal Counts	1	1	1	1		3				2	2	11
Investment Totals (Millions)	$6.1	$2.5	$7.3	$0.1		$0.3				$13.6	$13.0	$42.7

Region 3	Pre-Seed	Angel	Seed	Early Stage	Later Stage	Total
Deal Counts	1	2		5	3	11
Investment Totals (Mil)	$0.1	$4.2		$16.1	$22.4	$42.7

Source: PitchBook Data, Inc.; TEConomy calculations.

Federal Small Business Innovation Research (SBIR) Grants

- **What is it?** The federal Small Business Innovation Research (SBIR) program is a source of innovation funding for emerging technology companies. The SBIR program encourages small businesses to undertake technology commercialization by requiring federal agencies with extramural R&D budgets that exceed $100 million to allocate 2.5 percent of their R&D budgets to the SBIR program. Each federal agency involved in the SBIR program then issues requests for proposals on topics reflecting their technology needs and interests, and competitively awards SBIR grants based on the technical merits and commercialization potential in a phased approach.
- **Why it matters?** SBIR awards are another direct measure of innovation activity taking place in a region by small businesses.

Small Business Innovation Research Awards

Region 3	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Award Counts	3	3	4	6	2	3	8	4	5	3	5	46
Award Amounts (Millions)	$0.2	$0.3	$1.1	$3.1	$0.9	$0.4	$1.3	$1.6	$4.2	$0.4	$1.0	$14.5

Source: www.SBIR.gov; TEConomy calculations.

Regional Use of SBA Loans

- **What is it?** U.S. Small Business Administration (SBA) 7(a) loans are that federal agency's primary program for financial assistance to small businesses across the nation. These loans are typically issued by private lenders based on SBA guarantees of 75% to 85% with amounts not to exceed $5 million. Small businesses must demonstrate good credit/mgmt./ability to repay. Proceeds can be used for a variety of purposes: startup costs, buying land/buildings/equipment, new construction, working capital, and seasonal lines of credit.
- **Why it matters?** SBA 7(a) loan activity is a measure of how active regional small businesses in traded sectors are in seeking to grow their operations. It also helps measures availability of capital to small businesses in the region since lending in the SBA 7(a) program often is through local lending sources.

Region 3: SBA 7(a) Loans and Loan Amounts, Cumulative Totals 2010-20

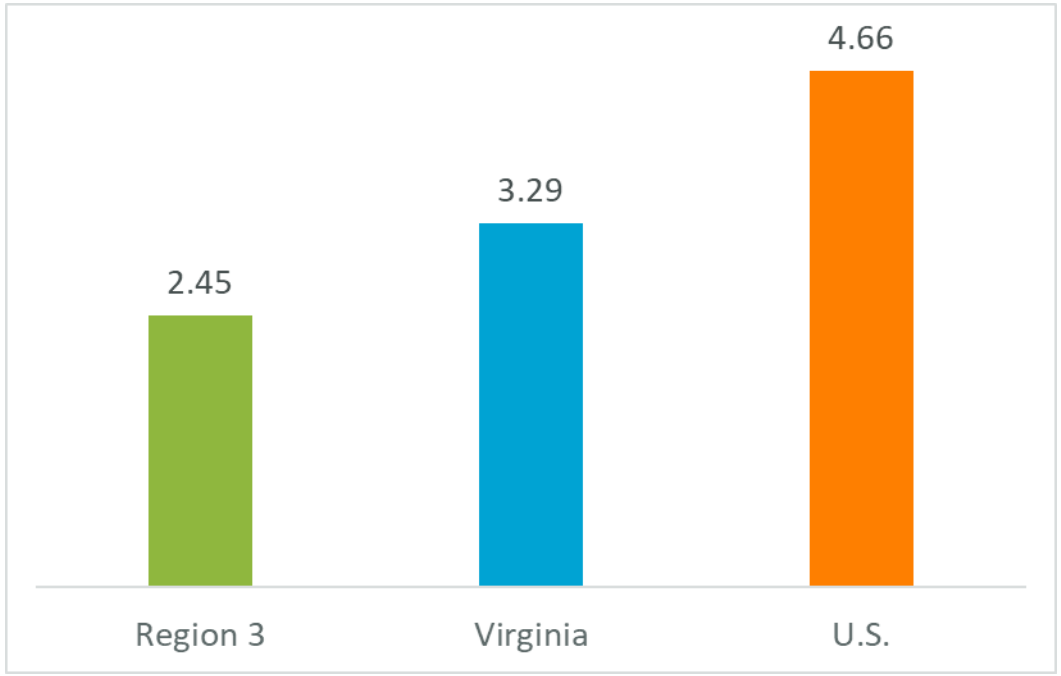
Industry Clusters	Co's Receiving Loans	Total No. of Loans	Total Loan Amounts ($ Millions)	% of Total Loan Amounts
Total, All Traded Sector Industries	**66**	**93**	**$70.3**	**100%**
Agriculture & Food Processing	16	20	$9.4	13.4%
Business Services	7	9	$13.8	19.7%
Energy, Natural Resources, & Finished Products	8	10	$11.3	16.1%
Manufacturing	3	15	$7.0	9.9%
Transportation, Distribution and Logistics	9	16	$2.0	2.9%
All Other Traded Sectors	23	23	$26.7	38.0%

Source: TEConomy analysis of SBA loan data reports.

Regional Utilization of SBA Loans vs. State & U.S. Totals

- **What is it?** By normalizing SBA 7(a) loans to traded sector small businesses by the number of traded sector establishments, it is possible to compare the level of lending activity in a region to that of the state and nation.
- **Why it matters?** High utilization of SBA 7(a) loans in a region suggests that the region has a growth-oriented traded sector small business base and/or good access to capital, while low utilization suggests a region's small businesses are not seeking to grow and/or are having trouble accessing capital.

SBA 7(a) Loan Counts, Traded Sector Companies
Per 1,000 Establishments, Avg. 2018-2020



Source: TEConomy analysis of SBA loan data reports.

Innovating Tomorrow's Economic Landscape

TEConomy Partners is a global leader in research, analysis and strategy for innovation-based economic development. Today we're helping nations, states, regions, universities, and industries blueprint their future and translate knowledge into prosperity.

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Important note: all content herein generated by the Boston Consulting Group (BCG) unless otherwise stated.

BCG'S SUBSECTOR INSIGHTS AND RECOMMENDATIONS FOR VIRGINIA'S POST-COVID BUSINESS ATTRACTION STRATEGY

Mineral Gap Data Center, Wise County

September 15, 2021

VEDP Virginia Economic Development Partnership VEDP.org

EXECUTIVE SUMMARY

Recognizing the impact of COVID-19 and other trends in the global economy, VEDP applied for EDA CARES Act funding to refine its target industries

- Notable trends include reshoring, COVID and remote working, sustainability concerns, e-commerce growth, and the rise of data
- Prior to 2021, VEDP has focused on high-level industry targets, but recent economic shifts have made the case for targeting more specific subindustries
- VEDP received an EDA grant in spring 2021 to identify post-covid growth sectors for the state and its regions

The Boston Consulting Group (BCG) was hired to conduct the study and highlighted 21 subindustries of focus that VEDP and 18 REDO partners should target

- BCG provided overviews of 21 subindustries and developed deep-dives into 9 of those subindustries where detailed information would be more impactful
- Over the next several years, VEDP and its partners will explore opportunities to implement BCG's identified action steps to increase the Commonwealth's competitiveness for attracting and growing those subindustries

Source: Unless otherwise stated, all content, analysis, and recommendations in this document were developed by the Boston Consulting Group for VEDP's *Post-COVID Subsector Business Attraction Strategy* project

AGENDA

Timeline and Project Overview

Subindustry Identification Methodology

Identified Subindustries and Details

Appendix

Pippin Hill

IN THE SPRING OF 2021, VEDP RECEIVED AN EDA GRANT TO FURTHER DEVELOP OUR STATE AND REGIONAL INDUSTRY TARGETS

2017

VEDP's 2019-2023 Strategic Plan created
- Worked with McKinsey to develop the plan with some regional engagement
- Laid out high-level industries and strategies for VEDP to pursue

July 2019-June 2020

VEDP's 2021-2025 Strategic Plan created from strategic plan refresh
- Collaborated with regional and state stakeholders to develop initiatives
- Updated industry targets and strategies, incorporating more specificity

August 2020

VEDP applied for EDA CARES Act funding
- Stated purpose of developing subindustry targets with tactics and strategies to capture growth, along with region-level tactics and strategies for relevant subindustries

September 2020-present

REDOs and VEDP begin retooling strategies and industries
- VEDP incorporated new industries stemming from COVID impacts

  VEDP Target Industries: https://www.vedp.org/key-industries
- REDOs begin strategic plan refreshes and updates to target industries

March-May 2021

EDA CARES Act funding awarded
- Selected BCG to lead effort based on their extensive industry knowledge
- Developed scope of work with BCG and supported their initial research with state and REDO collateral

June-August 2021

BCG works with VEDP and REDOs to develop subindustries and strategic recommendations
- Developed shortlist of subindustries with high growth and investment potential based on BCG's data and industry expertise
- Reviewed final subindustry playbook with regional action plans with VEDP Senior Leadership

VEDP, THROUGH CARES ACT FUNDING, LEVERAGED CONSULTANT SUPPORT TO DEVELOP STRATEGIES FOR ATTRACTING SUBINDUSTRIES

Objectives

- Identify subsets of industries that are poised for growth or have the potential for reshoring
- Align the subindustries poised for growth with the regions that will be attractive to relevant companies
- Develop a set of specific steps that regional and state-level stakeholders can take to attract companies and capture growth

Output

- 9 subindustry playbooks and one statewide strategic playbook with specific subindustries and action items with the following information:
  - **Summary subindustry profiles with value proposition**
    - Strengths, weaknesses, opportunities, threats (SWOT)
  - **Summaries of subindustry decision factors**
    - *Illustrative example* - 3PL and cold storage companies are expected to grow 10% over next three years to meet increased online ordering
    - Companies will seek warehouse space near interstates
  - **Specific steps to leverage strengths and overcome obstacles to capture growth**
    - *Illustrative example* - Partner with private developers to plan build-to-suit warehousing space

PROJECT ACCOMPLISHMENTS

Verified VA's current 14 focus industries as still valid in light of post-COVID economic shifts

Identified a set of sub-industries that are poised for growth and relevant for several regions, that VA should focus on attracting

Determined what is needed to make VA competitive in those subindustries

Ensured the regions had a voice in planning and clear next steps to attract investment

Consolidated learnings and recommended levers to attract investment in a state-wide playbook

INPUTS FOR ANALYSIS

25+

BCG case studies and vignettes

15

Years of Moody's employment data

60+

Expert calls

25+

REDO interviews

AGENDA

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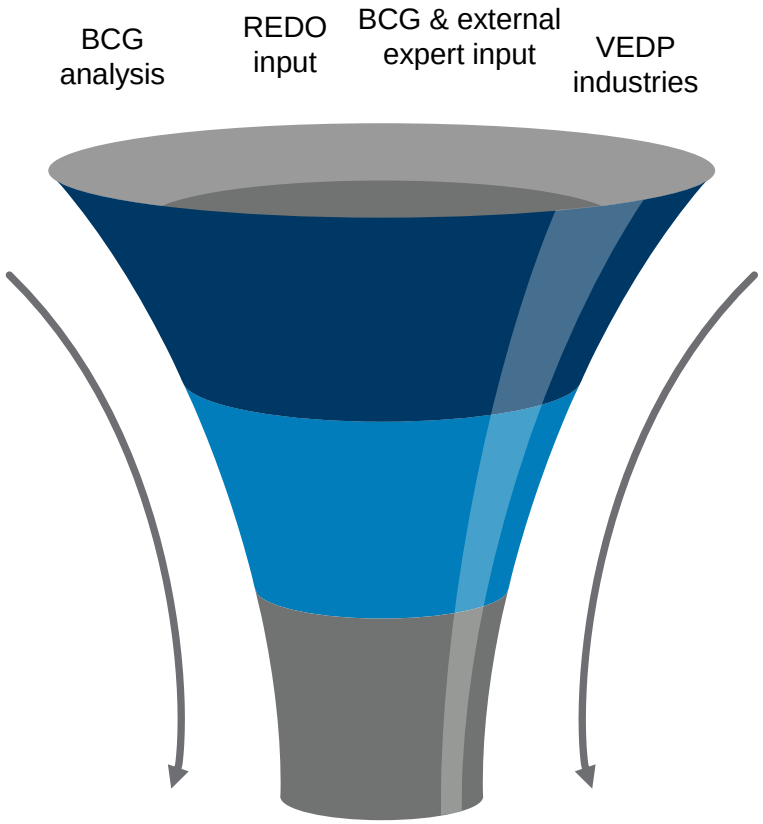
SEVERAL ANALYSES USED TO DETERMINE SUBINDUSTRIES

Inputs



Analysis	Outputs
Is this subindustry likely to see significant growth in the next 5 years? Will it result in tradeable goods?	List of 13 large industries for further analysis
Which subindustries have the highest investment potential and will produce quality jobs? Which subindustries are most relevant for VA?	Long list of 21 potential growth subindustries
Does the set of prioritized subindustries have something relevant for each region? Can BCG add valuable insight beyond VA's current efforts?	Prioritized list of 9 sub-industries for deep dives

SUBINDUSTRIES WERE PRIORITIZED BASED ON INDUSTRY GROWTH & JOBS POTENTIAL AND FIT FOR VIRGINIA

		Subdimension	Measurement description	Logic
Industry Growth and Jobs Potential	1	**Forecasted Jobs Growth**	National forecasted job growth (in number of jobs added) during the next year	Will reveal large and growing industries that will magnify their impact on jobs
	2	**Forecasted Revenue Growth**	National forecasted revenue growth (in billions of dollars in revenue) during the next year	Will reveal industries that can grow their impact on VA tax base and likely be looking to invest
	3	**Quality of Jobs**	Average wages within the industry	Will reveal industries that create quality, lasting jobs
Fit for Virginia	4	**Regional Clusters**	Evaluation of linkages to aligned industry clusters, relying on Cluster Mapping and expert interviews	Will reveal industries that enable or are amplified by existing business
	5	**Comparative Advantages**	Location Quotient for subindustry or its core industry, comparing Virginia's strengthen in the area to its peers	Will reveal industries where Virginia has existing jobs or export strengths
	6	**Competitive Strengths**	Qualitative assessment of the existing strengths within Virginia that could advantage the industry	Will reveal essential qualitative factors on industry fit

Note: equal weighting given to each criterion

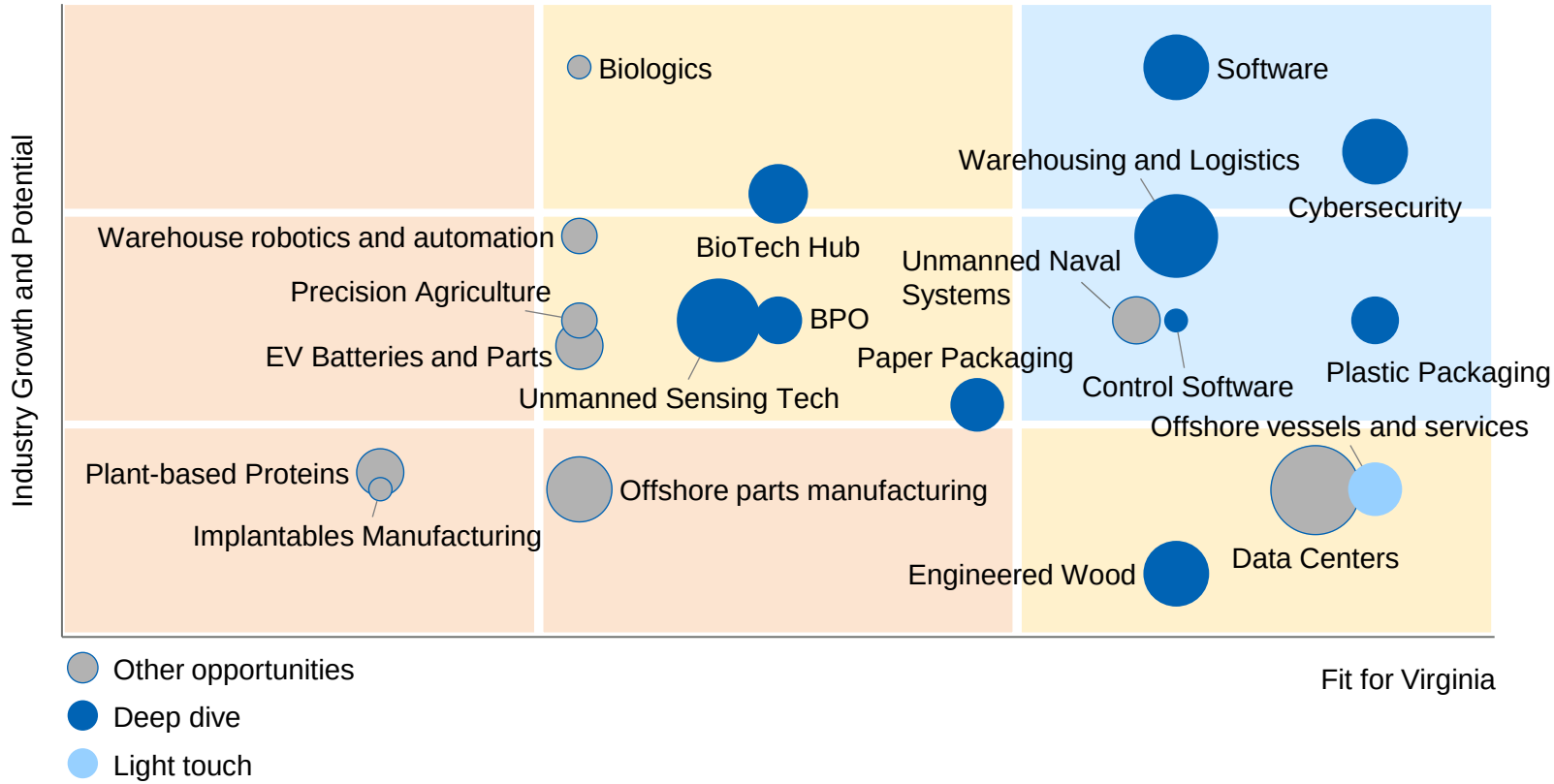
SUBINDUSTRIES RATED ACCORDING TO HIGH/MEDIUM/LOW SPLIT

	Subdimension		Low	Medium	High
Industry Growth and Jobs Potential	1	**Forecasted Jobs Growth**	Fewer than 3,000 new jobs	3,000 – 10,000 new jobs	More than 10,000 new jobs
	2	**Forecasted Revenue Growth**	Less than $1B of new revenue	$1B- $3Bin new revenue	More than $3B in new revenue
	3	**Quality of Jobs**	Average salary less than $60K per year	Average salary between $60-80K per year	Average salary above $80K per year
Fit for Virginia	4	**Regional Clusters**	No significant identified activity in adjacent clusters	Attractive adjacent clusters identified through industry and REDO conversations	1+ specialized, adjacent cluster (Cluster Mapping tool)
	5	**Comparative Advantages**	Location Quotient below 0.75	Location Quotient between 0.75 and 1.25	Location Quotient above 1.25
	6	**Competitive Strengths**	Virginia identified as having few unique assets	Virginia identified as having some unique assets	Virginia identified as having strong, unique assets

Note: equal weighting given to each criterion

RECAP | EIGHT SUBINDUSTRIES AND ONE INNOVATION AREA SELECTED FOR FURTHER DEEP DIVES

Assessment of subindustry potential and fit for Virginia
(diameter of bubble is proportional to the number of relevant REDOs)



Note: Unmanned systems and sensing includes locations that could host test sites, not just manufacturing.

Source: Industry Reports, Open Positions Search through LinkedIn and ZipRecruiter, Cluster Mapping, U.S. Bureau of Labor Statistics, Industry Expert Interviews, REDO Interviews, BCG analysis

AGENDA

Timeline and Project Overview

Subindustry Identification Methodology

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Appendix

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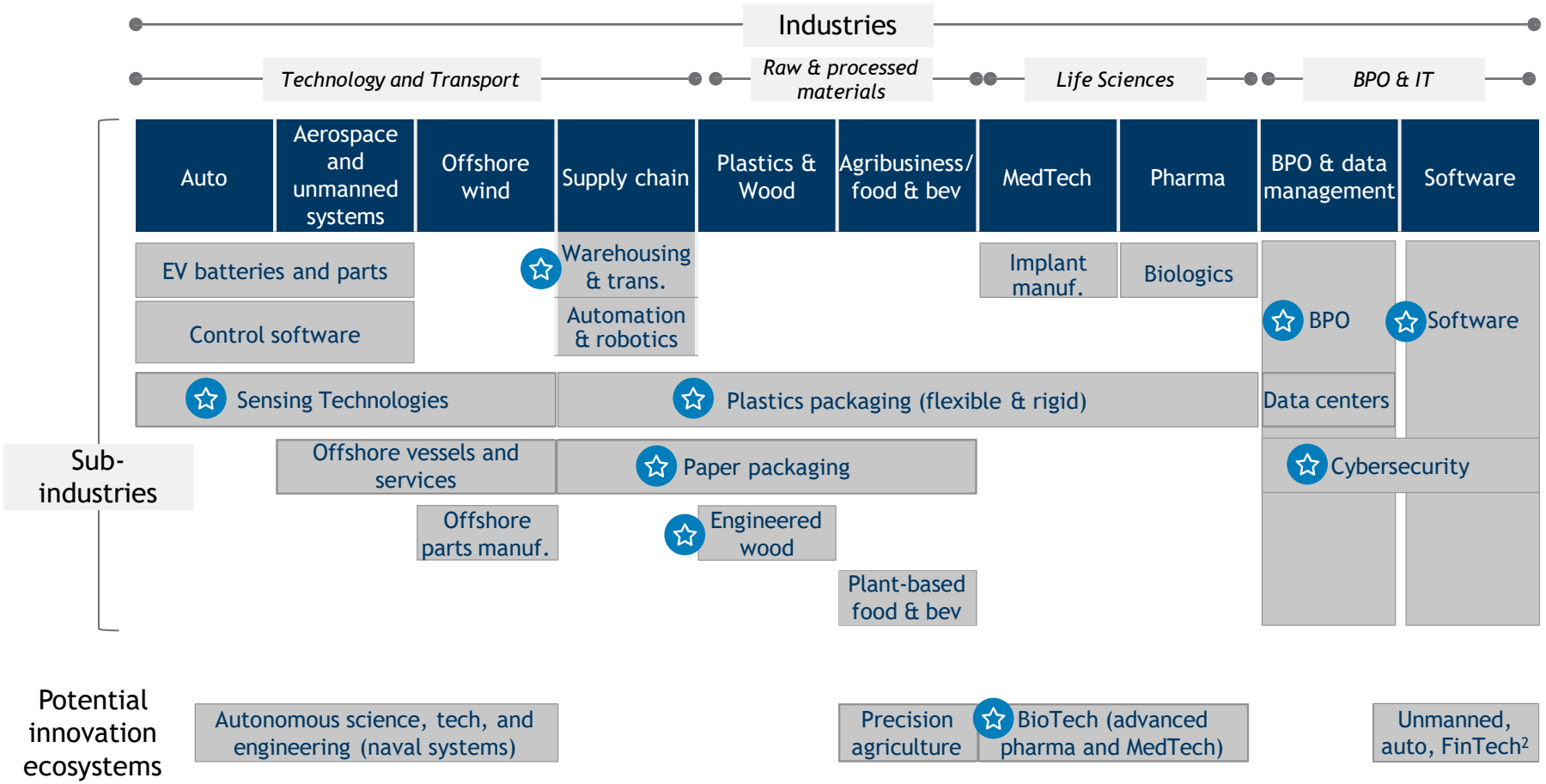
PROPOSED SUBINDUSTRIES REFLECT TAILORED OPPORTUNITIES FOR VIRGINIA TO TARGET FOR FUTURE GROWTH



Note: list is not exhaustive; other industries may still be high-growth

☆ Industries selected for deep-dives

[1] Aerospace and unmanned systems, plastics & wood, and BPO and agribusiness and food and bev combined due to overlaps in growth areas

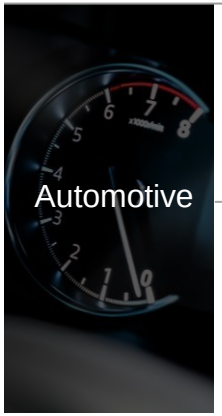
[2] Software verticals should be developed as part of a larger software skills growth strategy

EIGHT SUBINDUSTRIES AND ONE INNOVATION AREA SELECTED FOR FURTHER DEEP DIVES

Subindustries selected for deep dives for potential job growth, regional relevance, and where additional analysis could yield valuable insights (e.g., BPO, Engineered wood):

- Biotech (innovation area)
- BPO
- Cyber
- Engineered Wood
- Paper Packaging
- Plastics Packaging
- Sensing Technology
- Software
- Warehousing and Transportation
- Offshore vessels and services (light touch)

VA INDUSTRY LIST | GROWTH AREAS FOR FUTURE EFFORTS (I/VI)

Industry	Subindustry	Description	Rationale
 Automotive	EV Batteries and Parts	LI and other advanced battery cell design and assembly for auto and aerospace	▪ 25% CAGR in next 4 years, with 30k employees in high-skill roles
	Control software	Optimization, connectivity, & safety models for automotive and unmanned systems	▪ Significant labor demand growing at 7% CAGR ▪ Fits with VA's tech and automotive assets/skills
Aerospace and unmanned systems	Sensing technologies ☆	Traditional (mechanical, electrical) and advanced (lidar, radar, cameras) sensors	▪ 13% CAGR, creating R&D and manufacturing jobs ▪ Applicable to aero, auto, and naval systems
	Unmanned naval systems	R&D and Navy procurement of unmanned vessels for defense and offshore servicing	▪ Next generation of Navy funding; cross over needs and talent with aero and auto industries ▪ Natural right to win for VA

☆ Industries selected for deep-dives

VA INDUSTRY LIST | GROWTH AREAS FOR FUTURE EFFORTS (II/VI)

Industry	Subindustry	Description	Rationale
Offshore wind	Vessel retrofitting and services	Supplying, retrofitting, and operating offshore manned and unmanned service vessels	▪ Growth market bolstered by new Federal laws & investments ▪ Strong right to win as East Coast supplier
	Parts manu-facturing	Manufacturing of blades, nacelles, towers, and other core turbine parts	▪ 40% expected growth with gov't investment ▪ Natural existing supplier footprint
Supply chain	Warehousing and transport ☆	Regional and local distribution centers, cold chain, and 3PL to route orders to customers	▪ E-Commerce growing at 15% CAGR; cold chain logistics at 10% YoY ▪ Strong geographic right to win
	Automation and robotics	Robotics, management systems (WMS), and software that enables efficient operations	▪ ~2700 open jobs with 12% growth rate ▪ Overlaps with high-skill engineering sectors

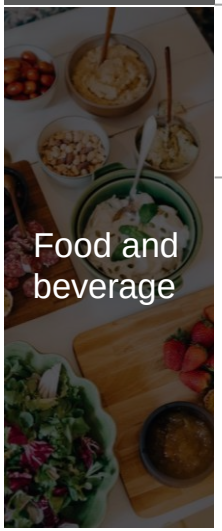
☆ Industries selected for deep-dives

VA INDUSTRY LIST | GROWTH AREAS FOR FUTURE EFFORTS (III/VI)

Industry	Subindustry	Description	Rationale
Plastics and Wood	Plastics packaging ☆	Products, made of easily yielding materials such as film, foil, or paper sheeting (flexible); bottles and containers made through extrusion, injection molding, blow molding, thermoforming, etc. (rigid)	▪ Existing capability to produce plates, sheets, film, and strips of plastics ($218M of exports) ▪ Location advantage to ship packaging to major population centers ▪ Synergies with Virginia's robust food and beverage processing industry
	Paper packaging ☆	Primary (consumer product) and secondary (shipping) packaging	▪ Existing network of paper producers (30+ pulp and paper mills in VA, $543M foreign exports of various paper products in 2019)
	Engineered wood ☆	Composite material made with wood derivatives and adhesive	▪ Abundant natural resources (~60% of Virginia is commercial timberland), with ongoing investment by state in reforestation ▪ Low regional competition, opportunity to create hub to serve Southern and Eastern US

☆ Industries selected for deep-dives

VA INDUSTRY LIST | GROWTH AREAS FOR FUTURE EFFORTS (IV/VI)

Industry	Subindustry	Description	Rationale
Agri-business	Precision agriculture	New technologies used to increase crop yields while lowering levels of inputs (fertilizer, water, etc.)	▪ Strong agriculture and engineering research centers at Virginia Tech and Virginia State ▪ Potential VC investment from nearby DC
 Food and beverage	Traditional food processing	Food and beverage processing and packaging across traditional products	▪ Virginia LQ of 1.01 for food processing ▪ Strong current investment interest and natural resources
	Plant-based proteins	Processed foods and beverages with ingredients derived from plants rather than animal products	▪ Robust fermentation industry (beer, wine) and associated research in the field ▪ Presence of processed meat players (Tyson) ▪ Existing food and beverage processing and packaging ecosystem and talent

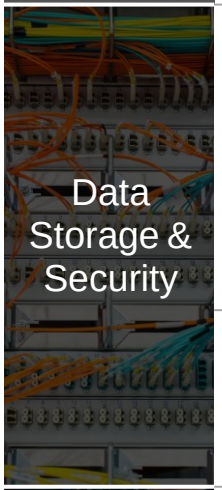
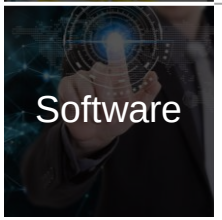
☆ Industries selected for deep-dives

VA INDUSTRY LIST | GROWTH AREAS FOR FUTURE EFFORTS (V/VI)

Industry	Subindustry	Description	Rationale
MedTech	Implantables	Manufacturing for joint replacements, pacemakers, stents, and artificial eye lenses	▪ $22B and growing market requiring US engineering and manufacturing ▪ Some research clusters, metal manufacturing to build on
	BioTech innovation ☆	Foster startup community	▪ High percent of revenue invested in R&D (25%+), talent is critical to biopharma industry ▪ Potential for healthcare cluster due to proximity to federal institutions (DC) and knowledge centers (UVA)
Pharma	Biologics	Cutting edge therapies like antibodies, therapeutic proteins, gene therapy, and cell therapy	▪ 14% growth in a >$100B market ▪ Opportunity to optimize speed to market by collocating R&D and manufacturing
	Advanced manu-facturing	Foster ecosystem for new manufacturing technologies (as part of BioTech hub)	▪ Proximity to DOD is an advantage as the federal government moves to reshore pharma manufacturing ▪ Demonstrated success with continuous manufacturing startup (Phlow) and network of chemical providers (AMPAC, Civica)

☆ Industries selected for deep-dives

VA INDUSTRY LIST | GROWTH AREAS FOR FUTURE EFFORTS (VI/VI)

Industry	Subindustry	Description	Rationale
BPO	-- ☆	In-sourcing of back-office functions from high cost to low-cost areas in the NE	▪ Firms in high cost of living areas likely to move back office nearby but to cheaper geographies ▪ Workforce has a higher sense of data security due to ex-Govt/mil workers and presence of fin services and HC
 Data Storage & Security	Data centers	Primary and secondary co-located data centers	▪ 8% revenue CAGR driven by shift from on-prem to cloud ▪ 72% of world's internet traffic travels through VA ▪ 30% lower commercial electricity costs compared to national avg, and areas of state with lower RE costs
	Cybersecurity ☆	Network, data, and cloud security	▪ 50B industry with ~500k open cybersecurity jobs ▪ Global top-3 destination for cyber talent
 Software	-- ☆	Broad skills growth and specific small industry development for auto	▪ $328B revenue, employing 2.5M workers, and 10% CAGR ▪ Existing tech talent and underlying subindustries from which to build software talent

☆ Industries selected for deep-dives

TABLE OF SUBINDUSTRIES BY REGION PER BCG

● Regional fit ☐ Deep dives

VEDP Region	EV batteries & parts	Sensing technologies	Naval unmanned systems	Offshore vessels	Offshore parts manufacturing	Warehousing & transportation	Automation & robotics	Plastic packaging	Paper packaging	Engineered wood	Precision agriculture	Plant-based food & bev	Data centers	Cybersecurity	BPO	BioTech innovation hub	Implant manufacturing	Biologics	Software[1]
Central Virginia		●	●				●	●		●			●	●	●	●	●	●	●
Eastern Shore		●	●	●							●	●							
Greater Fredericksburg		●	●	●		●							●	●	●	●		●	●
Greater Richmond		●		●	●	●	●		●	●			●	●	●	●	●	●	●
Greater Williamsburg		●	●	●	●	●		●		●		●	●	●	●				●
Hampton Roads		●	●	●	●	●	●			●			●	●	●	●			●
I-81 I-77 Crossroads	●	●			●	●		●		●			●						
I-95 I-85 Intersection		●		●	●	●	●	●	●				●			●			
Lynchburg Region	●	●		●	●				●	●			●	●	●	●			●
Middle Peninsula				●	●	●			●										
New River Valley	●	●	●		●		●	●	●	●	●	●	●	●		●	●		●
Northern Neck				●		●				●		●							
Northern Shenandoah Valley	●	●				●		●	●			●	●	●					
Northern Virginia		●	●			●	●				●		●	●		●		●	●
Roanoke Region	●	●			●	●			●	●	●	●	●	●	●	●	●		●
Shenandoah Valley						●		●	●		●	●		●					●
South Central Virginia	●		●			●				●		●	●			●			
Southern Virginia	●	●			●			●	●	●			●						
Southwest Virginia	●				●	●					●		●		●				●

[1] Includes industry verticals (e.g. control software)

Q&A

American Buildings, Mecklenburg County

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AGENDA

Timeline and Project Overview

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Appendix

Pippin Hill

APPENDIX

Virginia International Gateway
Portsmouth, VA

BIOTECH | SUMMARY

BioTech research, centered around manufacturers, startups, and universities, spans across the US but is concentrated in high-density R&D clusters (e.g. MA, NC)

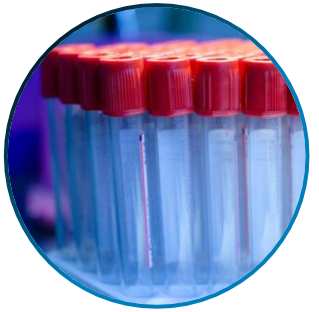
- Multiple emergent technology areas (e.g. cell and gene therapies, advanced implants) across both pharma and device industries are attracting significant research interest.
- Successful clusters rely on critical enablers, including financial incentives, federal access, and high quality of life.

BioTech clusters require a strong coordinating entity and shared vision to align diverse stakeholders.

- Key stakeholders include manufacturing entities, funders, medical providers, educational institutions, and R&D facilities.
- Strongest hubs rely on a well-funded coordinating entity (e.g. MassBio, RTP Foundation) to represent and advocate for cluster

Virginia is positioned to grow their R&D/ early commercialization BioTech cluster, if well organized

- Virginia has the university research, existing R&D pockets, and untapped labor base building blocks for an expanded R&D hub.
- Potential focus areas, building on existing assets, could include pharma process innovation, cell and gene therapies, and medical sensing technologies.



BIOTECH | OPPORTUNITY

Current 2030 jobs forecast

~1.2K
New direct jobs
(.5% jobs CAGR)

Potential additional jobs above forecast by 2030

~14.5 -17.3K
(5.0% - 5.8% jobs CAGR)

Virginia could rapidly grow Life Sciences jobs by aligning around and funding a state innovation corridor.

Three High Priority Levers for Virginia

1. Fund and staff a coordinating entity to align research & stakeholders
   - Cluster coordination through an existing hub entity (e.g. VA Bio, VA Bio-Connect, Regional BioHubs) essential to connect cluster stakeholders and to market the region in a unified fashion

2. Form consortium to attract federal Technology Hub funding
   - The soon-to-be-passed U.S. Innovation and Competition Act allocates funding for regional technology hubs; a successful consortium will attract attention and unlock significant dollars to fund R&D activities

3. Attract acquiring companies to build startup pipelines
   - Attracting regional offices of major acquiring companies (e.g. Abbvie) will increase visibility into Virginia R&D output and create exit opportunities. Marketing successes out of state will further grow commercial pipeline

BPO | SUMMARY

Many BPO functions have moved offshore, but certain subsegments more likely to stay within the US

- BPO consists of both cross-industry and vertical-specific functions at varying degrees of complexity
- Higher complexity functions are less likely to be offshored, e.g., high-touch customer interaction
- Specific industries, such as healthcare and insurance, have unique, vertical specific needs which need to be performed onshore
- Non-BPO firms in high-cost cities keeping back-office functions internal, but moving to lower cost areas of the US

BPO is a low margin industry, so reducing costs while maintaining an available talent pool critical to attracting firms

- Metros with a population between 100-500k and low median income are prime targets for back-office outsourcing and cross-industry BPO
- Low corporate and property taxes help further reduce costs
- Availability of public transit widens the potential labor pool and access to interstates and airports enables access to client sites
- Firms willing to hire within a 100-mile radius for hybrid positions

VA can attract BPO functions and verticals because of its low costs and its geographic location within the mid-Atlantic

- Most applicable for metros with inexpensive labor at scale
- VA's proximity to the northeast attractive for companies moving back-office location out of expensive cities

BPO | OPPORTUNITY

Current 2030 jobs forecast

4.8K
New direct jobs in VA (.5% jobs CAGR)

Potential additional jobs in VA above forecast by 2030

5.7-9.1K

(1.0% - 1.3% jobs CAGR[3])

VA can lower costs to be more attractive to BPO firms and companies relocating back-office functions.

Three High Priority Levers for Virginia

1. Offer incentives for BPO firms to enter economically depressed areas
   - Enact tiered tax credits to induce job creation in economically depressed areas (e.g., GA's tax credit for up to $4,000 per new job created)
   - Lower local property taxes for commercial office space (e.g., Greenville, SC offers property tax abatement for shared service office space)

2. Help BPO companies access labor
   - Connect entry level job-seekers with open outsourcing positions to streamline the hiring process
   - Continue to increase broadband access in rural communities to enable greater numbers of workers to work remotely

3. Publicize VA in high-cost metros to encourage back-office relocations
   - Promote VA in high-cost northeast cities as a less expensive, accessible location with the requisite infrastructure for back-office functions
   - Direct outreach to both cross-industry and industry-specific BPO firms to expand in VA

CYBERSECURITY | SUMMARY

VA should compete across all areas of the cybersecurity value chain, as jobs are growing at all levels and large numbers remain unfilled

- Higher end cyber work includes developing customized software to prevent advanced malware attacks for F-500 companies
- Lower end includes Managed Security Service Providers (MSSPs) bundling 3rd party cyber products and providing threat detection
- Different talent requirements will fit different regions

Cybersecurity companies primarily focused on talent, regardless of location

- Firms prefer 2-3 years of experience, but increasingly hire from training programs and universities, with talent remaining remote
- Academic degrees and industry certs critical, but internships needed to bridge the gap between training and real-world operations
- Because MSSPs seek entry-level cybersecurity talent, they locate in areas with low-cost talent at scale

VA has strong foundations in talent and can further apply lessons from places like San Antonio, TX; Augusta, GA; and Israel

- VA's military cybersecurity units bring talent to the state, and its large veteran population is ripe for upskilling
- Efforts to grow computer science degrees and align cybersecurity training with industry needs are building VA's foundational talent
- Existing cybersecurity hubs leveraged military cybersecurity, aligned stakeholders, and concentrated cybersecurity in a specific cluster

CYBER | OPPORTUNITY

Virginia could continue as a cyber jobs hub by further growing its talent base, aligning with industry, and incentivizing growth in specific metros

Current 2030 jobs forecast[1]

7K
New direct jobs in VA

(3.8% jobs CAGR[2])

Potential additional jobs above forecast by 2030

7-12K

(6.9% - 8.8% jobs CAGR[3])

Three High Priority Levers for Virginia

1. Grow talent base by reducing education costs and increasing visibility
   - Increase the number of VA colleges with NSA cybersecurity designation, which enables students to apply for federal cybersecurity scholarships
   - Partner community colleges in rural and medium/small metros with area high schools to publicize cybersecurity career options

2. Align existing training programs with industry needs
   - Establish a forum between training programs and cybersecurity firms to share best practices, grow apprenticeships, and align training curriculum
   - Tailor training in medium and small metros to skillsets needed by Managed Security Service Providers who are more likely to locate in a medium or small metro

3. Incentivize investment and cluster firms in a specific large metro
   - Provide tax credits to VA companies to purchasing cybersecurity services from VA cybersecurity companies (e.g., MD)
   - Market a specific VA city as a cybersecurity hub by leveraging its existing base of military cybersecurity to attract private companies
   - Incentivize private sector firms to cluster near one another within the targeted city by offering low-cost office space for cybersecurity firms

Source: 1. Number of Information Security Analysts (ISA) per BLS data. According to the BLS, ISAs "plan, implement, or monitor security measures for the protection of computer networks and information." Actual cyber-related jobs likely higher but trying to reduce overlap with software industry jobs estimates; 2. Projected 10-year CAGR for ISAs in VA from BLS; 3. Projected 2-year and historic 5-year CAGRs for ISAs in VA from BLS

ENGINEERED WOOD | SUMMARY

Manufacturers seek customer proximity and access, resource availability, and welcoming ecosystems

- Growing market demand, proximity to population centers, and transportation infrastructure are critical for location decisions
- Spruce-pine-fir-south lumber, sawmills, and kilns are prerequisites
- Innovation institutes, clear engineered wood building codes, and specialized talent pools create ecosystem to support mass timber

Virginia is relatively well-positioned for success; Oregon presents an example of optimal conditions for mass timber

- Virginia has the natural resources and infrastructure necessary to produce and transport engineered wood, as well as an existing forestry education necessary to train the labor force
- Leaders such as Oregon are engaging innovation partners to attract investment

Engineered wood is a growth area within the wood products cluster, where Virginia has historically shown strength

- Includes wood products manufactured by binding or fixing strands, particles, fibers, veneers or boards with adhesives
- Mass timber is a growing segment (13% global CAGR) of engineered wood used for construction and leveraged for sustainability

ENGINEERED WOOD | OPPORTUNITY

Current 2030 jobs forecast

-1.2K
Lost direct jobs across wood industry (-1.4% jobs CAGR)

Potential additional jobs above forecast by 2030

2K-4K

(direct jobs from mass timber

(**1.9%** jobs CAGR)

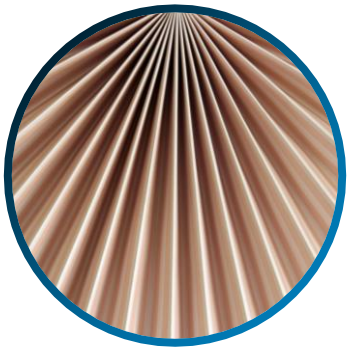
Virginia could capture up to 20-25% of the US mass timber market share by aggressively pursuing new and existing mass timber manufacturers

Three High Priority Levers for Virginia

1. Engaging with mass timber manufacturers
   - Formalize a task force of organized stakeholders with mandate to facilitate collaboration, produce attraction packages, etc.
   - Advertise and financially support R&D and testing (e.g., hardwood CLT research at Virginia Tech's Dept. of Sustainable Biomaterials)
   - Provide financing support to new businesses
2. Developing regional expertise and local talent
   - Continue to develop university and vocational forestry programs (e.g., Virginia Tech, Virginia State University, Southern Virginia Higher Education Center)
   - Support on the job mass timber training for existing manufacturers
   - Close mass timber knowledge gaps for construction practitioners and lawmakers to encourage use and appropriate legislation
3. Encouraging sustainable forests
   - Increase the planting of SPF-S forests and continue reforestation
   - Bring awareness to existing sustainable forest requirements and encourage forest certification (e.g., FSC, SFI, PEFC certifications)
4. Reducing barriers to demand
   - Communicate updated building codes (e.g., IBC 2021 code adopt)
   - Streamline permit processes and support stakeholders to navigate

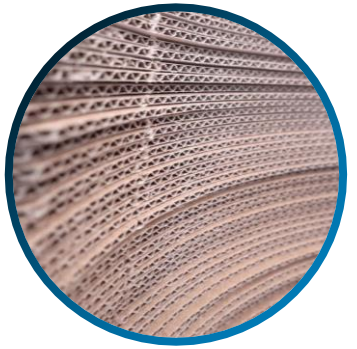
Moody's Analytics, Bureau of Labor Statistics

PAPER PACKAGING | SUMMARY



Both paper manufacturing and packaging conversion segments are growing – but most REDOs should focus on the latter

- Pulp, paper, and paperboard mills have high jobs potential (employment multiplier of 6.9), and high hourly wage ($36-38) However, they have adverse environmental impacts and greenfield mills are becoming increasingly uncommon in the U.S.
- Packaging conversion offers lower jobs potential (employment multiplier of 3.2) and lower hourly wages (~$25), but revenue growth can lead to expansions or smaller facilities across multiple counties



Packaging plants require proximity to manufacturing and a willing blue-collar labor force

- Packaging conversion is tied to geographies with other manufacturing; Plants consider customers and transport in 300 to 700-mile radius
- Challenge to find workforce that is capable and willing to work in blue collar environment with appropriate level of education and training
- Consolidation of plants increasing, with workforce relations driving location decisions
- Automation requires digital skills; workforce will remain critically important for next decade, medium importance after 20 years

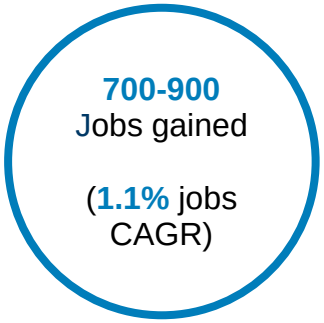
North Carolina is poised for the best overall growth; Virginia can compete to supply boxes for the regions' manufacturing

- North Carolina has a strong manufacturing customer base, and has a large and growing paper packaging industry (1.1% jobs CAGR)

PAPER PACKAGING | OPPORTUNITY

Current 2030 jobs forecast

Potential additional jobs above forecast by 2030



Virginia can minimize job loss and capture share from North Carolina's package conversion industry for blue-collar workers

Three High Priority Levers for Virginia

1. Create access to workforce for packaging converters
- Ensure manufacturers' access to capable and willing workforce through job placement, high school pipeline, worker reskilling, and on the job training (e.g., NCWorks Career Centers, MN Diversified Industries Program, Eastern CT Youth Manufacturing Pipeline)
- Focus not only on traditional mechanical skills, but also on digital and computer skills relevant for increasingly automated environments

1. Offer government incentives and support
- Offer property or payroll tax abatement while maintaining funding for schools (e.g., Alabama Reinvestment and Abatements Act)
- Create resources to support navigation of environmental regulations across levels of government
- Optimize transport taxes and energy subsidies to reduce freight and energy cost (e.g., North Carolina Energy Program)

1. Capture customer base from Virginia and surrounding states
- Attract packaging based on Virginia's location between MD and NC manufacturing bases
- Advertise existing VA box converters to VA, MD, NC manufacturing base

Source: Moody's Analytics, Bureau of Labor Statistics

PLASTIC PACKAGING | SUMMARY

Virginia should pursue two complementary paths in the plastics industry: packaging conversion and plastic waste reclamation

- Packaging conversion involves the creation of rigid and flexible primary consumer packaging from eight main plastic resin categories
- Plastic waste reclamation mechanically or chemically repurposes post-consumer, post-industrial, and scrap feedstock into raw material

Packaging and recycling firms rely on customer relationships, feedstock access, talent, and cost management to succeed

- Customer proximity, as supported by transport infrastructure, is critical for packaging firms to supply customers quickly and cost efficiently; less essential but still relevant for waste recyclers
- Feedstock access, also dependent on rail and highways, refers to the the frequency, quantity, cost, and quality of resin or plastic waste
- Workforce with not only mechanical abilities but also expertise in innovative recycling and communication and interpersonal skills
- Ready sites, utilities, regulations, and incentives are all considered, given their influence on the cost and speed of doing business

Virginia well-suited for packaging conversion and recycling, and can invest to catch up to historic plastics growth in region

- Virginia has the required regional customers, with room to improve on feedstock access, workforce availability, and business ready sites
- Virginia, Maryland, North Carolina, Tennessee, and West Virginia have regional plastic packaging jobs CAGR of 5%; Virginia stands at 0.78%

PLASTIC PACKAGING | OPPORTUNITY

Current 2030 jobs forecast

2-3K
Job growth

(**1.6%** jobs CAGR)

Potential additional jobs above forecast by 2030

1.5-2K
Job growth

(**5-6%** jobs CAGR)

Virginia can build the plastics value chain to by attracting recyclers and packaging converters

Three High Priority Levers for Virginia

1. Create access to workforce
   - Ensure manufacturers' access to capable and willing workforce through job placement, high school pipeline, worker reskilling, and on the job training (e.g., NCWorks Career Centers, MN Diversified Industries Program, Eastern CT Youth Manufacturing Pipeline)

2. Offer government incentives and support
   - Develop inventory of pre-certified business ready sites, market to industries and site selection consultants (e.g., Select TN Certified Sites Program)
   - Offer targeted industry support for recyclers (e.g., CA Recycling Market Development Zone Loan, NC Recycling Business Assistance Center)
   - Create resources to support navigation of environmental regulations

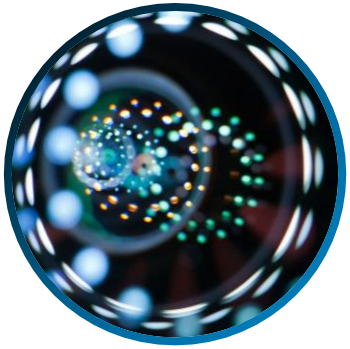
3. Increase feedstock access
   - Incentivize recycling by increasing awareness and mandating or rewarding appropriate recycling (e.g., Rethink LA, MS RecycleBank)
   - Provide funding for localities seeking to improve recycling infrastructure (e.g., NC Community Waste Reduction and Recycling Grant) or solicit co-investment from companies (e.g., Coca Cola, Closed Loop Fund)
   - Divert waste from landfills by increasing disposal costs

Note: Jobs forecasting does not include growth from plastic recyclers

SENSORS | SUMMARY

Sensing technologies serve a wide array of industries, from industrial applications such as flow meters to unmanned systems through advanced optical sensors

- Increasing automation and adoption of Internet of Things (IoT) devices expected to drive increasing sensor demand
- Sensing devices are one component of a broader tech stack, and connect to other layer (e.g. software), with applications for numerous end markets (e.g. defense, health)



Manufacturer and R&D facilities tend to co-locate, and hubs require an attractive location for both components

- Manufacturers value affordable but skilled labor, tax incentives, and proximity to full value chain (e.g. defense, manufacturing)
- R&D players value funding access, connections to academia, and innovation zones (e.g. "smart cities" or autonomous vehicle zones)

Virginia has building blocks necessary to grow R&D sensors ecosystem, with potential spillover to manufacturing

- VA strength in end-use markets (BioTech, Defense, Warehousing) present opportunities for downstream collaboration
- Potential to connect multiple players in industry-focused innovation zone (e.g. Los Angeles Smart Manufacturing Innovation Institute)

SENSORS | OPPORTUNITY

Current 2030 jobs forecast

~1.1K
New direct jobs

(**2.2%** jobs CAGR)

Potential additional jobs above forecast by 2030

~1.2 -1.6K

(**4.3 – 4.8%** jobs CAGR)

Multiple industry-specific clusters chartered around state to focus on next generation sensors R&D and manufacturing

Three High Priority Levers for Virginia

1. Stand up a state coordinating entity to align research & stakeholders
   - Statewide coordination essential to make connections across clusters, connect unified marketing for labor and companies, and bring in new corporate and academic partners

2. Charter industry-specific innovation zones to drive collaboration
   - Narrowly-focused consortiums will ensure labor specialization across actors in pool, attract niche companies, and accelerate research output, and more scalably drive industry-leading performance in specialization area

3. Invest in programs to fill labor market gaps
   - Placing veterans into sensors industries will provide unique skillsets and strengthen connections to defense contractors; short-length reskilling programs will fill critical industry skills (soldering, fiber optics, machining)

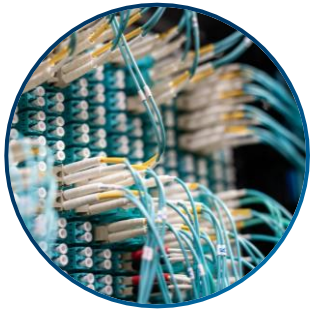
SOFTWARE | SUMMARY

Software industry growing broadly, but companies clustered in metro areas and around industry verticals

- Virginia's large metro areas should focus on established, mid-size tech players, and smaller areas should seek to grow local startups
- Virginia can capitalize on existing industry strengths such as Tier 1 suppliers, banking, and healthcare to grow software focus areas

Expanding tech companies primarily seek cities with available talent, university collaboration, and innovation ecosystems

- Proximity to well-trained talent and innovation is the single most critical investment factor
- To meet growth projections, VA would need to graduate an additional 17k CS degrees beyond the VA TTIP targets over the next 10 years
- Quality of life, branding, and costs also critical for location decisions.
- Startups also have a unique set of needs, including direct access to a university, dedicated funding, and mentorship programs



Virginia is well positioned to capture software industry growth, but can learn from other rapidly growing hubs

- Virginia has the university infrastructure, tech talent, and generally high-quality of life to attract new tech entities
- Leading cities are building tech hubs by growing local tech talent and building on existing local industries (e.g. Nashville with music/HC tech)
- Small communities like Bozeman, MT have focused on attracting talent and VC firms to become a hub for local innovation

SOFTWARE | OPPORTUNITY

Current 2030 jobs forecast

35K
New direct jobs in VA (1.8% jobs CAGR)

Potential additional jobs above forecast by 2030

9-18K

(2.4% jobs CAGR)

Virginia could rapidly grow software jobs by aligning around and funding a state innovation corridor

Three High Priority Levers for Virginia

1. Upskill and retain existing talent; attract outside talent
   - Develop coding bootcamps for front end web development and connect bootcamp graduates with VA-based tech companies (e.g., Nashville)
   - Connect transitioning service members with local tech startups (e.g., Northern VA Tech Council's Vet Employment Initiative)
   - Direct outreach to out of state tech talent (e.g., Bozeman/Nashville)

2. Streamline collaboration between industry and higher education
   - Create statewide program to aligns tech edu curriculum with in-demand industry skills, awards certs, and connects job seekers with openings
   - Establish CS univ affiliate program to increase tech exchange and showcase research (e.g., Univ of WA's CS Industrial Affiliates Program)

3. Target resources for medium and small metro startups
   - Partner universities with non-profits that support early-stage startups
   - Develop univ. mentorship programs for non-student local tech startups
   - Publicize medium and small metro startups at VC industry events

4. Develop an industry vertical (e.g., automotive software)
   - Establish leading AV testing and commercialization regs (e.g., CA)
   - Promote VA's talent and testing facilities at out of state industry events
   - Publicize cybersecurity talent to expanding auto cybersecurity firms

[1] Moody's Analytics, Bureau of Labor Statistics

WAREHOUSING AND LOGISTICS | SUMMARY

Supply Chain and Warehousing industries are growing as COVID-19 accelerates consumer interested in e-commerce

- Geopolitical tensions and tariffs additionally driving reshoring + regionalization of supply chains
- Growth spread across sectors; two attractive sub-industries are third-party logistics (3PL) and cold chain
- Increasing automation has driven need for new, advanced skillsets around machine maintenance and IT management

Success factors for logistics hubs include local supply and demand, physical assets, talent, and business climate

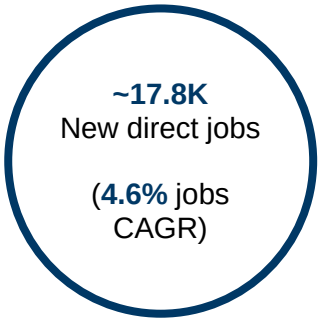
- Geographic realities (including population centers, goods production, and road, rail, and port systems) are major factors
- Skilled labor is increasingly important; supply of move-in ready sites important to operators, while permitting and incentives are valued by warehouse developers

Virginia is well-positioned to grow Supply Chain and Logistics sector, with strong asset base

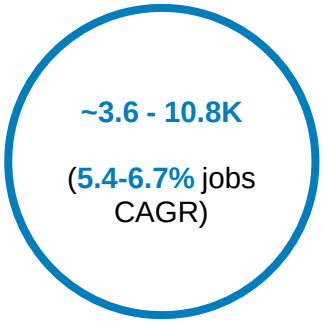
- Excellent location near demand centers along Eastern Seaboard; Port of Virginia among best on coast
- Largest gaps for Virginia are the supply of quality sites and limited existing financial incentives

WAREHOUSING AND LOGISTICS | OPPORTUNITY

Current 2030 jobs forecast



Potential additional jobs above forecast by 2030



Virginia could grow Logistics and Warehousing jobs around major corridors and Port of Virginia, given strategic location

Three High Priority Levers for Virginia

1. Identify and prepare strategic locations
   - Explore opportunities to re-zone land (e.g. Lehigh Valley in PA)
   - Explore critical port upgrades such as sea-to-rail transfers

2. Attract warehouse developers to increase supply
   - Incentivize (e.g. through tax abatements) and market to warehouse developers to create sites
   - Create industry forums to collect demand & communicate needs

3. Reskill workforce to accelerate jobs growth
   - Reskill displaced blue-collar labor for core warehousing skillset (e.g. expanding Virginia Ready)
   - Collaborate with colleges and launch new certificates and associates' programs for skilled supply chain needs

4. Regionally grow cold chain to unlock seafood and food processing pockets and expand Port of VA cold chain capacity
   - Attract cold chain warehouse developers to Northern Neck and coastal areas to debottleneck seafood delivery
   - Incentivize cold chain construction around Port of Virginia
   - Convene industry forums of food manufacturers to understand and advocate for cold chain needs

[1] Moody's Analytics, Bureau of Labor Statistics

VIRGINIA CHAMBER

THE VOICE of BUSINESS

Blueprint Virginia 2030 Overview
GO Virginia Region 3

Barry DuVal, President & CEO

OUR VISION

Our **VISION** is to be the **voice of the Virginia business** community and the most influential business advocacy organization in the Commonwealth.

@vachamber

OUR MISSION

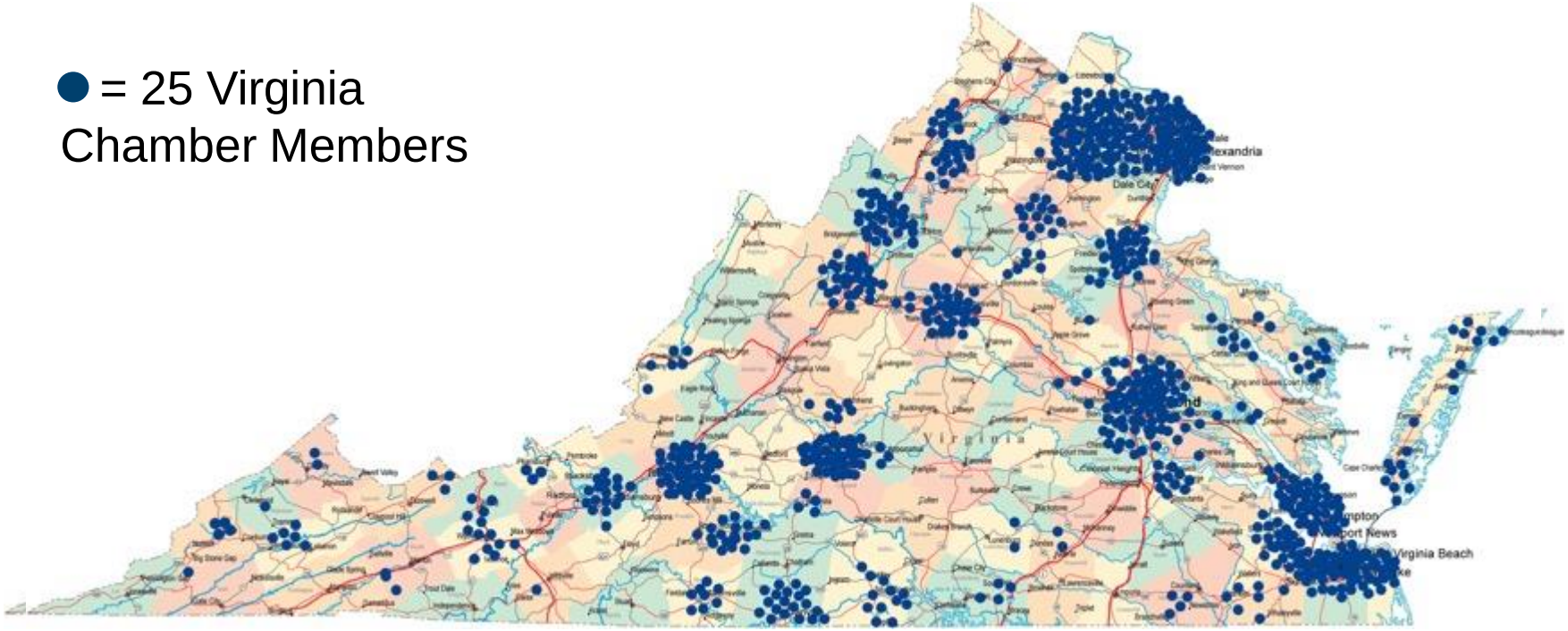
Our **MISSION** is to be the leading **non-partisan** business advocacy organization that works in the **legislative, regulatory, civic and judicial** arenas at the state and federal level to be a force for long-term economic growth in the Commonwealth.

@vachamber

VIRGINIA CHAMBER MEMBERS

2010	2021
1,000	27,821

● = 25 Virginia Chamber Members



STRATEGIC PLAN

- Strengthen Virginia's reputation as the **best state** in which to do business.

WHY VIRGINIA? QUALITY OF LIFE - 2019

#1 Forbes Best States for Business – Quality of Life

Virginia offers a diverse range of lifestyle options, a mild, four-season climate, and a competitive cost of living. Vibrant urban centers and picturesque small towns are alive with arts and culture and stunning landscapes. Outdoor enthusiasts can take advantage of a wide variety of beautiful outdoor settings, from mountains and hiking trails to beaches and rivers.


The Omni Homestead Resort, Bath County


Taubman Museum of Art, Roanoke


Dragon's Tooth Trail, Catawba


Canal Walk, Downtown Richmond


Virginia Creeper Trail, Washington County


Sandbridge, Virginia Beach


Arlington

Visuals provided by: VEDP;
https://issuu.com/vedpvirginia/docs/tech_in_virginia?fr=sMTliMDE3MDE3MTA

WHY VIRGINIA?

CNBC

#1 Top State for Business – Workforce

WalletHub 2020

#1 Best Public Schools in the South

smartasset 2020

#2 Best State for Higher Education

Visuals provided by: VEDP;
https://issuu.com/vedpvirginia/docs/tech_in_virginia?fr=sMTliMDE3MDE3MTA

2020 NATIONAL RANKINGS

Cybersecurity Leaders

1	VIRGINIA
2	TEXAS
3	MARYLAND
4	COLORADO
5	LOUISIANA
6	NEW YORK
7	GEORGIA
8	CALIFORNIA
9	MICHIGAN
10	UTAH

Best Business Climate

1	TEXAS
2	VIRGINIA
3	TENNESSEE
4	ALABAMA
5	NORTH CAROLINA
6	INDIANA
7	GEORGIA
8	FLORIDA
9	UTAH
10	MISSISSIPPI

Workforce Development/Talent Attraction

1	LOUISIANA
2	ALABAMA
3	VIRGINIA
4	GEORGIA
5	TENNESSEE
6	TEXAS
7	FLORIDA
8	NORTH CAROLINA
9	NEW MEXICO
10	COLORADO

Digital Infrastructure

1	VIRGINIA
2	TEXAS
3	ARIZONA
4	ILLINOIS
5	NEVADA
6	WASHINGTON
7	CALIFORNIA
8	MARYLAND
9	COLORADO
10	NEW YORK

Offshore Wind Power (MW by 2035)

1	NEW YORK
2	NEW JERSEY
3	VIRGINIA
4	MASSACHUSETTS
5	CONNECTICUT
6	RHODE ISLAND

VIRGINIA RANKED 5th MOST INNOVATIVE STATE - 2020

Overall Rank*	State	WalletHub State Innovation Index	Human Capital	Innovation Environment
1	Massachusetts	78.58	2	1
2	District of Columbia	75.16	1	5
3	Washington	69.83	6	3
4	Maryland	69.80	4	4
5	Virginia	66.88	3	9
6	Colorado	66.43	5	7
7	California	65.54	7	2

U.S. NEWS RANKS BEST STATES FOR 2021

10 Best States in America:

1. Washington
2. Minnesota
3. Utah
4. New Hampshire
5. Idaho
6. Nebraska
7. Virginia
8. Wisconsin
9. Massachusetts
10. Florida

On Equality, Virginia Ranks #5 in The Nation:

- Education Gap by Race
- Employment Gap by Disability Status
- Employment Gap by Race
- Income Gap by Gender
- Income Gap by Race
- Labor Force Participation Gap by Gender

On Economic Opportunity, Virginia ranks #11 in the nation:

- Food Insecurity
- Income Equality
- Household Income
- Poverty Rate

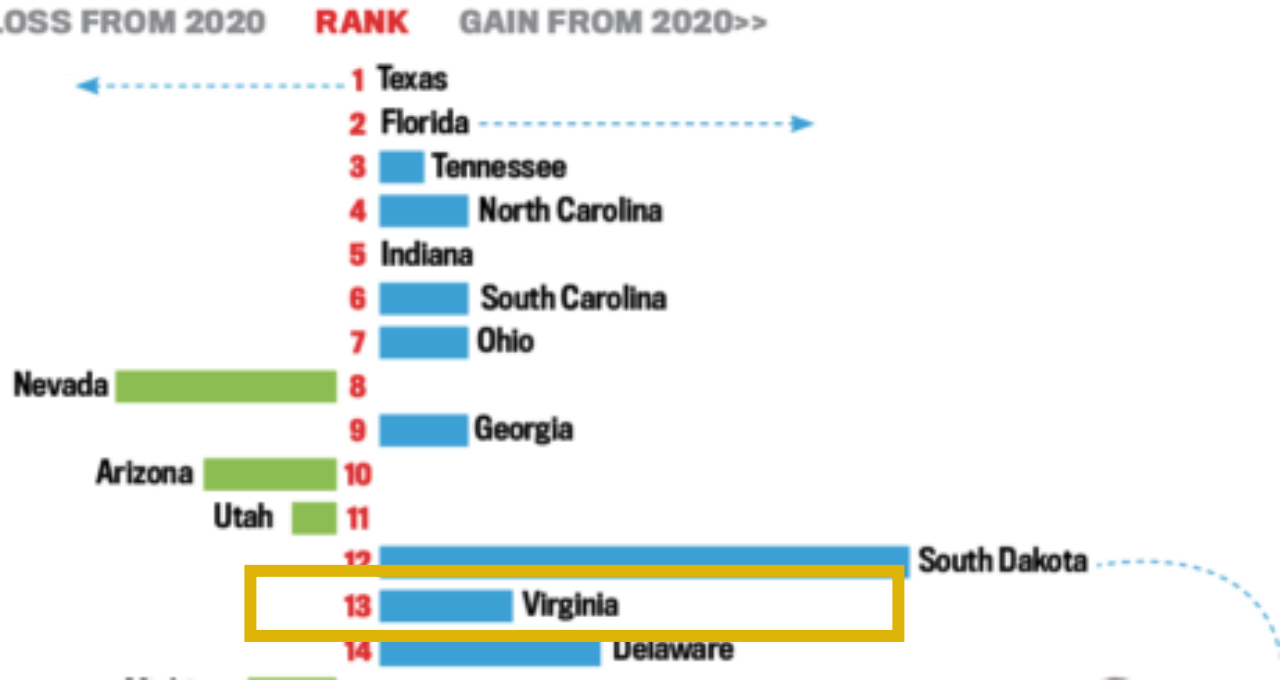
VIRGINIA RANKS #13 BEST STATE FOR 2021

VIRGINIA RANKS #13 BEST STATE IN 2021

After being ranked #16 in 2020, Virginia climbed 3 spots back to the #13 ranking for 2021

Chief Executive

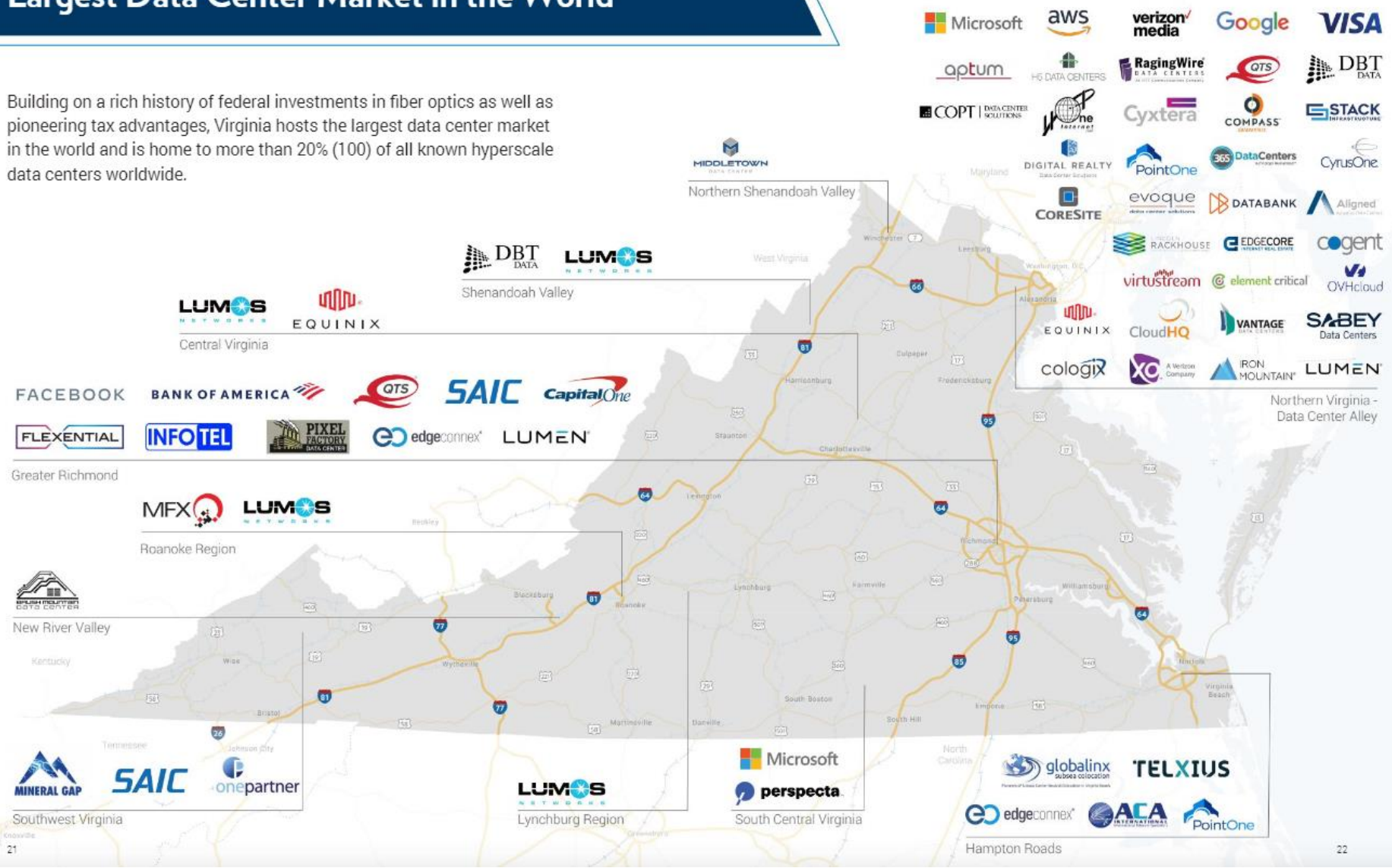
RANKING 2021 BEST & WORST STATES FOR BUSINESS



WHY VIRGINIA? – DATA CENTER MARKET

Largest Data Center Market in the World

Building on a rich history of federal investments in fiber optics as well as pioneering tax advantages, Virginia hosts the largest data center market in the world and is home to more than 20% (100) of all known hyperscale data centers worldwide.



VIRGINIA CHAMBER

Visuals provided by: VEDP;
https://issuu.com/vedpvirginia/docs/tech_in_virginia?fr=sMTliMDE3MDE3MTA

WHY VIRGINIA? – TECH ECOSYSTEM

A Large and Diverse Tech Ecosystem

Illustrative Examples of Tech Headquarters and Centers in Virginia

Technology businesses relocating or expanding into Virginia join world-class tech leaders like Amazon, Microsoft, Google, and Facebook, as well as companies in emerging sectors such as artificial intelligence/machine learning (AI/ML), FinTech, Manufacturing Tech, and Software-as-a-Service (SaaS). According to CyberSeek, Virginia is also home to the second largest cybersecurity sector in the country.

Visuals provided by: VEDP;
https://issuu.com/vedpvirginia/docs/tech_in_virginia?fr=sMTliMDE3MDE3MTA

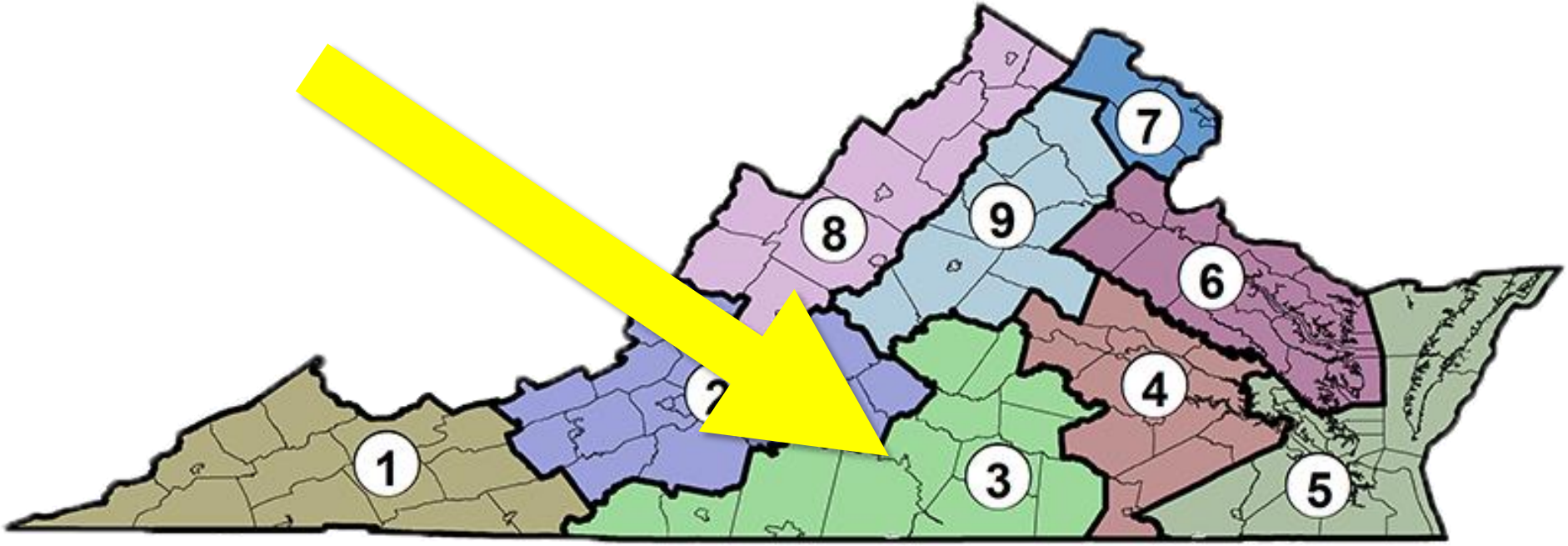
VA CHAMBER FOUNDATION

ECONOMIC DEVELOPMENT ANNOUNCEMENTS 2019-2021

GO VIRGINIA REGION 3

GO VIRGINIA REGION 3 SNAPSHOT

Region 3 consists of the cities of Danville and Martinsville; and the counties of Amelia, Brunswick, Buckingham, Charlotte, Cumberland, Halifax, Henry, Lunenburg, Mecklenburg, Nottoway, Patrick, Pittsylvania, and Prince Edward.



Information provided by: GO VIRGINIA REGION 2; DHCD

GO VIRGINIA REGION 3 SNAPSHOT

REGION THREE SNAPSHOT

Population: 373,322

Average Annual Wage: $33,846

Targeted Industries:

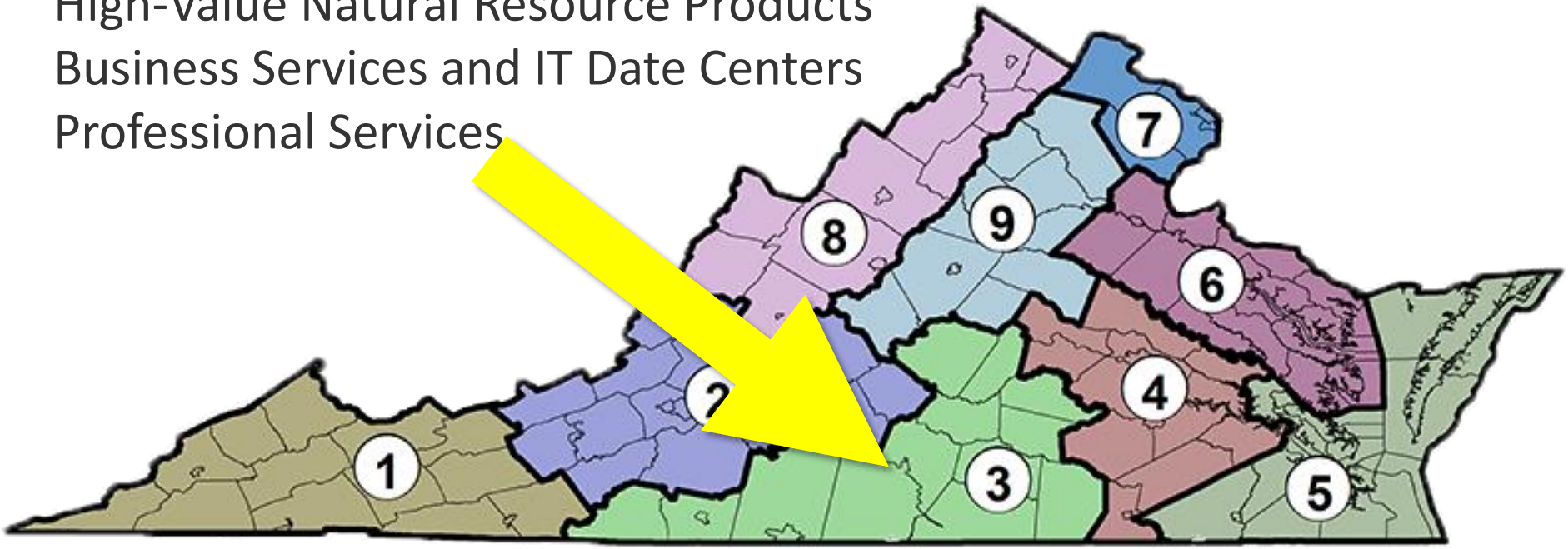
Advanced Manufacturing

Health Care

High-Value Natural Resource Products

Business Services and IT Date Centers

Professional Services



Information provided by: GO VIRGINIA REGION 2; DHCD

Economic Announcements - 2019

Company Name	Locality	Manufacturing Type	Project Type	New Jobs	Investment
Capps Shoe Co.	Pittsylvania	Manufacturing	Existing Virginia	50	$0
American Building Co.	Mecklenburg	Manufacturing	Existing Virginia	10	$3,500,000
Eastman Chemical Company	Henry	Manufacturing	Existing Virginia	0	$7,700,000
UAV Pro Inc	Nottoway	Non-Manufacturing	Existing Virginia	75	$2,500,000
AeroFarms	Pittsylvania	Manufacturing	New to Virginia	92	$41,836,000
Morgan Olson, LLC	Pittsylvania	Manufacturing	New to Virginia	703	$57,800,000
Advanced Revert LLC*	Henry	Non-Manufacturing	New to Virginia	30	$5,000,000

Economic Announcements – 2019 (Continued)

Company Name	Locality	Manufacturing Type	Project Type	New Jobs	Investment
Echo World Communications, LLC	Brunswick	Non-Manufacturing	New to Virginia	153	$549,900
Teal-Jones Group*	Henry	Manufacturing	New to Virginia	67	$21,000,000
PRA Group, Inc.	Danville	Non-Manufacturing	New to Virginia	300	$10,858,200
Gefertec LLC*	Danville	Manufacturing	New to Virginia	8	$1,900,000
Hodedah Import, Inc.	Henry	Non-Manufacturing	New to Virginia	35	$3,500,000
Litehouse, Inc.	Danville	Manufacturing	New to Virginia	160	$46,240,000

Information provided by: VEDP

Economic Announcements - 2020

Company Name	Locality	Manufacturing Type	Project Type	New Jobs	Investment
The Results Companies	Patrick	Non-Manufacturing	Existing Virginia	118	$0
Drake Extrusion, Inc.*	Henry	Manufacturing	Existing Virginia	30	$6,850,000
Ennis, Inc.	Pittsylvania	Manufacturing	Existing Virginia	15	$800,000
Dogwood Global, LLC	Pittsylvania	Manufacturing	New to Virginia	45	$500,000
Ison Furniture	Pittsylvania	Manufacturing	New to Virginia	150	$3,500,000
FerraTex Solutions, LLC*	Henry	Manufacturing	New to Virginia	15	$1,950,000
Blue Ribbon Hemp	Halifax	Manufacturing	New to Virginia	20	$2,935,000
Braven Environmental	Cumberland	Manufacturing	New to Virginia	52	$31,650,000
Staunton River Plastics, LLC	Pittsylvania	Manufacturing	New to Virginia	200	$34,000,000

Economic Announcements – 2021 (so far)

Company Name	Locality	Manufacturing Type	Project Type	New Jobs	Investment
J&J Truck Sales	Pittsylvania	Manufacturing	Existing Virginia	27	$5,200,000
Crown Holdings, Inc.	Henry	Manufacturing	Existing Virginia	126	$145,000,000
Intertape Polymer Group	Pittsylvania	Manufacturing	Existing Virginia	50	$44,500,000
Laminate Technologies	Henry	Manufacturing	Existing Virginia	42	$4,000,000

Economic Announcements

REGION 3 ECONOMIC ANNOUNCEMENTS FROM 2019-2021

Year	Total Jobs	New to Virginia	Existing	Total Investment
2019	1,683	9	4	$415,096,500
2020	645	6	3	$82,185,000
2021 *(so far)*	245	0	4	$198,700,000

Information provided by: VEDP

VA CHAMBER FOUNDATION

BLUEPRINT VIRGINIA

BLUEPRINT VIRGINIA

2013 Virginia Economic Summit | November 29, 2013

BLUEPRINT VIRGINIA 2025

2017 Virginia Economic Summit | December 1, 2017

BLUEPRINT VIRGINIA 2025

COMPETITIVE AREAS OF FOCUS

WORKFORCE AND EDUCATION

Ensure Virginia has a highly-skilled and well-trained workforce for the short- and long-term needs of employers

BUSINESS CLIMATE

Strengthen and secure a competitive business climate and foster economic development throughout Virginia and its diverse regions

TRANSPORTATION

Improve how Virginia moves its people and goods throughout the state by embracing all modes of transportation

HEALTH CARE

Build a world class system of health care that addresses access, quality, and cost for Virginia's employers

ENERGY

Ensure access to affordable, reliable, and secure energy in the Commonwealth

INNOVATION AND TECHNOLOGY

Create an ecosystem that fosters new business formation through innovation, research, commercialization, and investment

ADVANCED MANUFACTURING

Grow Virginia's advanced manufacturing industry

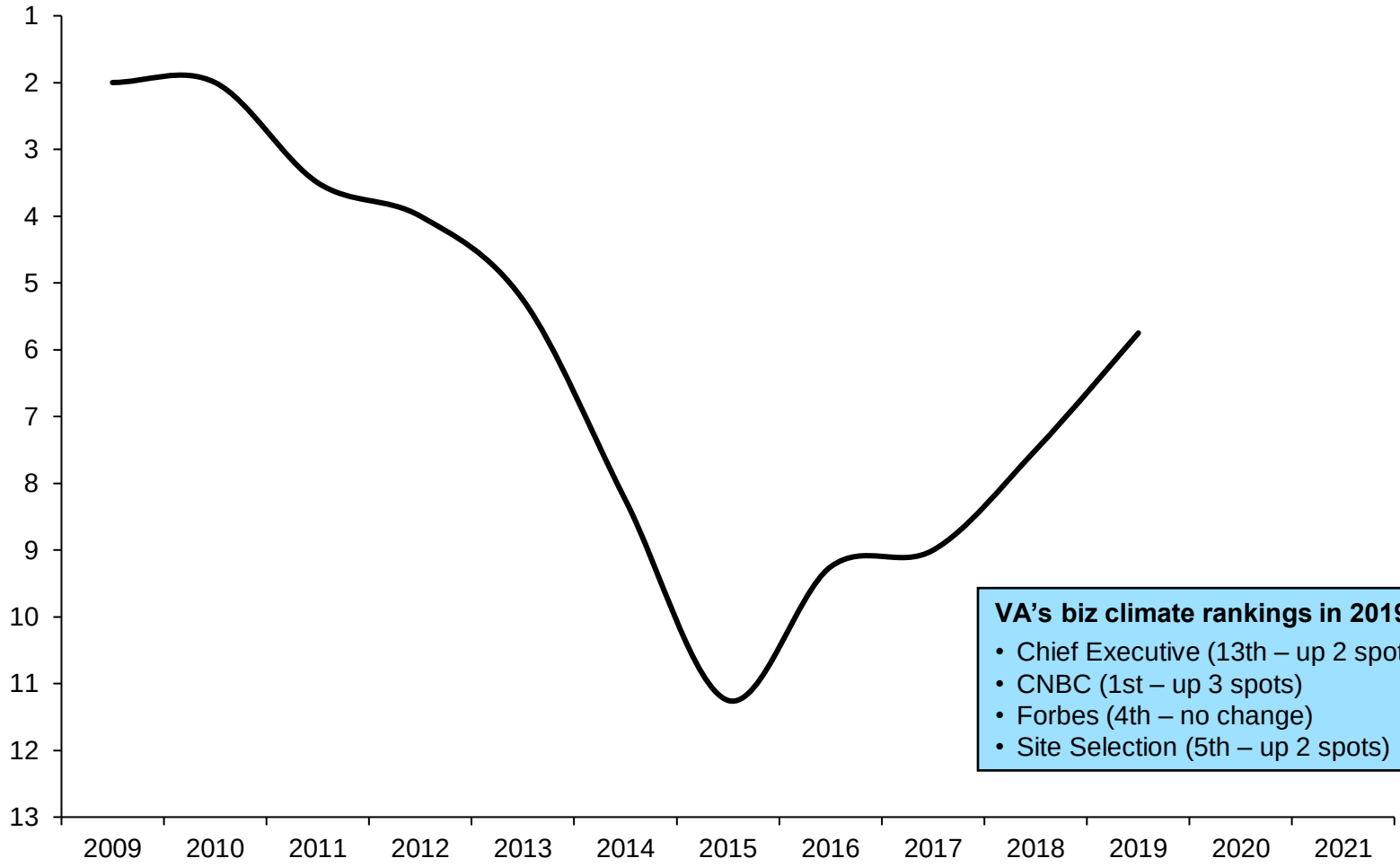
CORPORATE SUSTAINABILTY AND ENVIRONMENT

Champion a framework that balances economic growth and stewardship of Virginia's natural resources

MILITARY AND VETERANS AFFAIRS

Strengthen Virginia's veteran talent pipeline and protect our military assets

VIRGINIA'S DECADE-LONG ROLLER-COASTER RIDE IN THE NATIONAL BUSINESS-CLIMATE RANKINGS

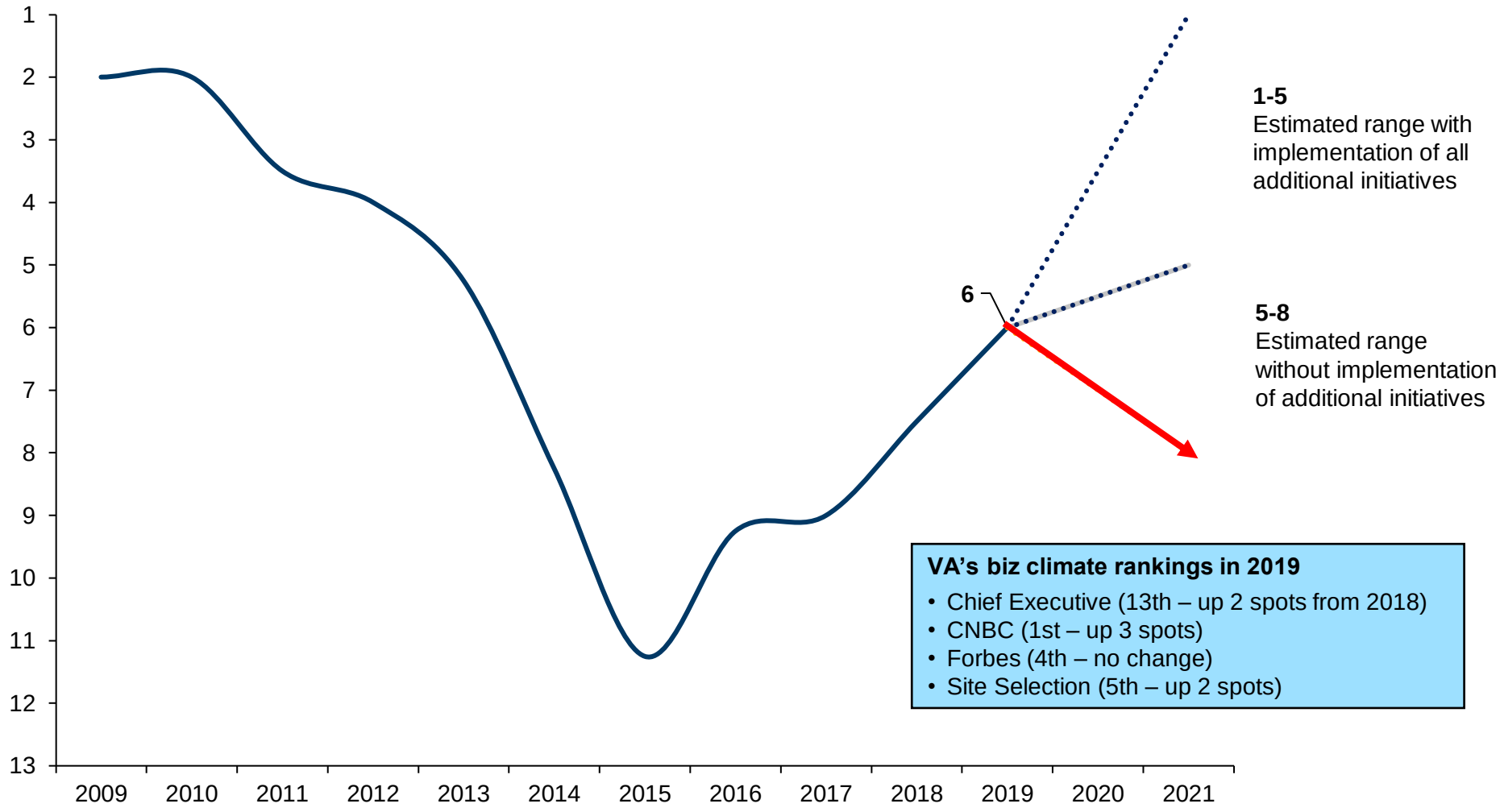


VA's biz climate rankings in 2019

- Chief Executive (13th – up 2 spots from 2018)
- CNBC (1st – up 3 spots)
- Forbes (4th – no change)
- Site Selection (5th – up 2 spots)

Source: Chief Executive magazine; CNBC; Forbes; Site Selection; VEDP analysis

VA RECENTLY HAS BEEN IMPROVING IN BUSINESS CLIMATE RANKINGS – BUT COULD STAGNATE WITHOUT BOLD ACTION

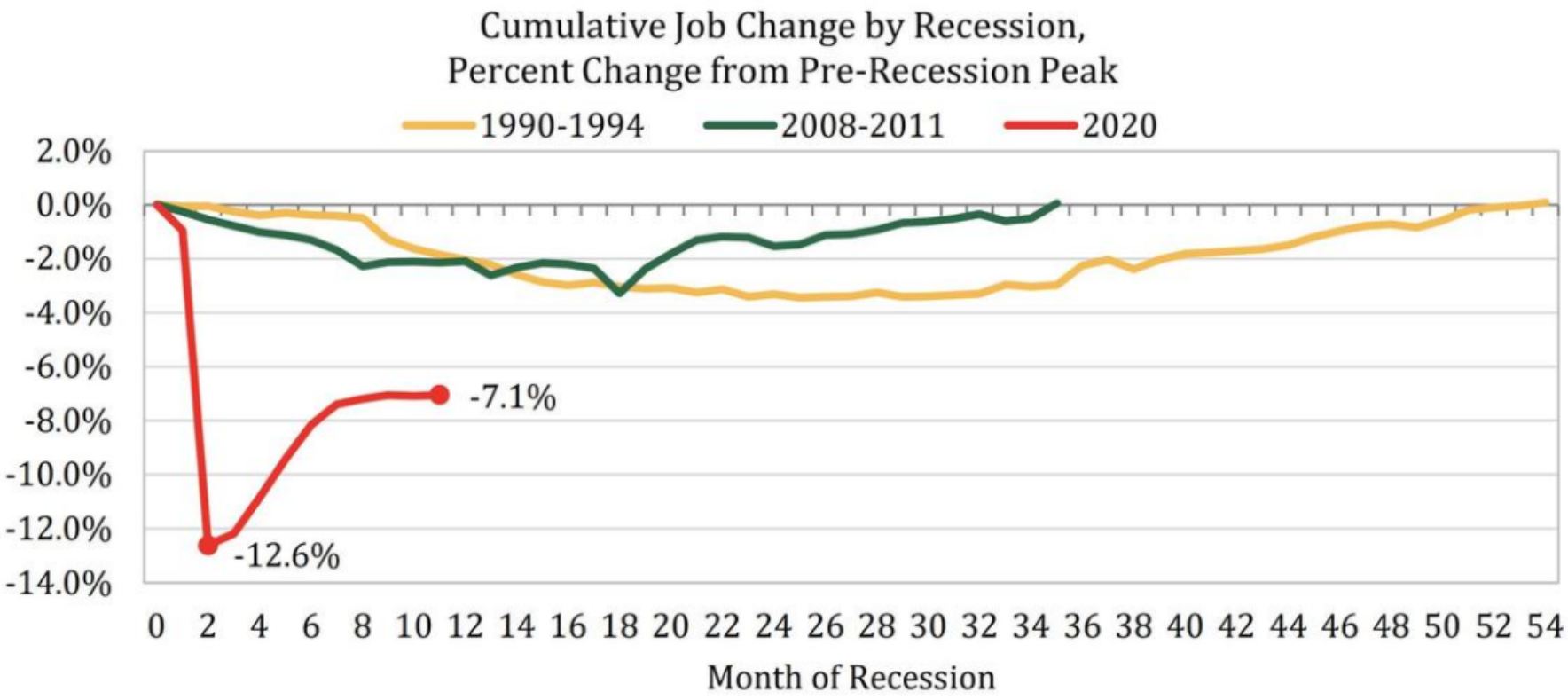


Source: Chief Executive magazine; CNBC; Forbes; Site Selection; VEDP analysis

VA CHAMBER FOUNDATION

VIRGINIA'S ECONOMIC CHALLENGES

NATIONAL CUMULATIVE JOB CHANGE BY RECESSION



Source: U.S. Bureau of Labor Statistics (Seasonally Adjusted); The Stephen S. Fuller Institute at the Schar School, GMU

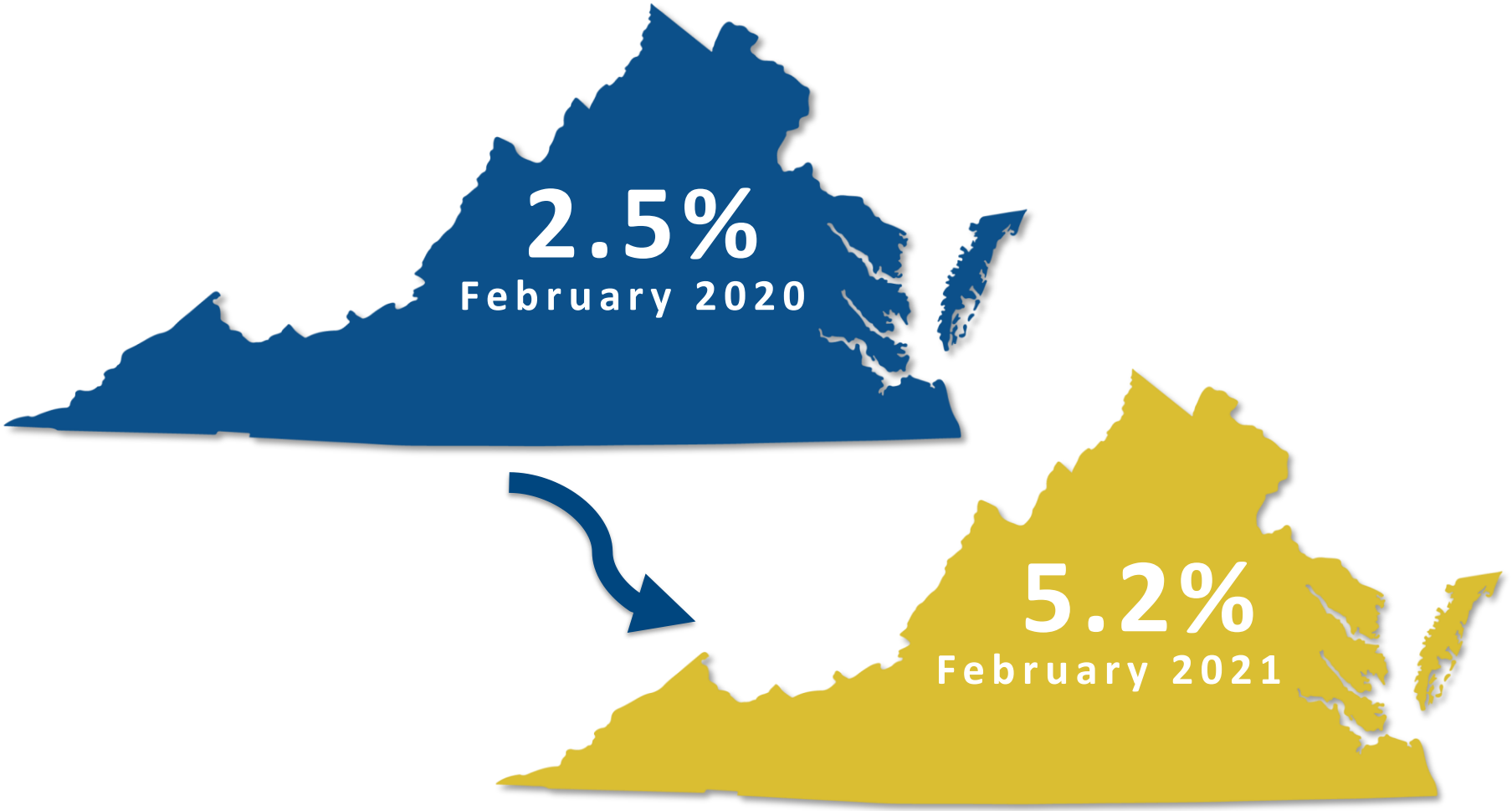
NATIONAL CUMULATIVE JOB CHANGE BY RECESSION

The Fuller Institute estimates Virginia has been able to **recover about 40 percent** of the jobs that were lost a year ago.

But that is still a job loss that's about **twice as large** as the previous two recessions.

Source: U.S. Bureau of Labor Statistics (Seasonally Adjusted); The Stephen S. Fuller Institute at the Schar School, GMU

COVID-19 IMPACT ON VIRGINIA UNEMPLOYMENT



SOURCE: Bureau of Labor

COVID-19 IMPACT ON UNEMPLOYMENT

The U.S. is 8 million jobs short of the number before the pandemic erupted.

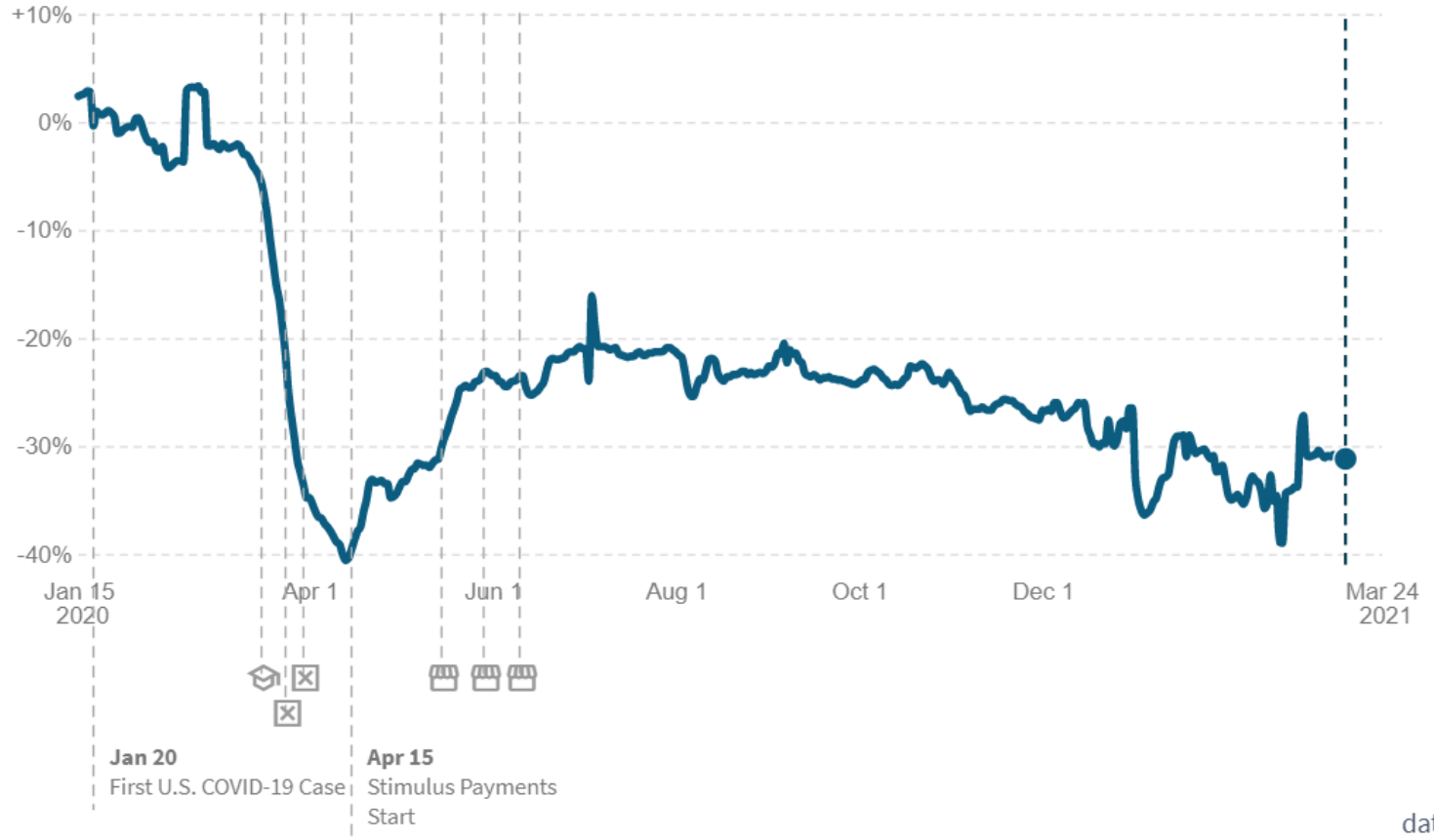
Nationwide, with over $12.2 billion in benefits paid:

- **1.5 million Virginians** filed for unemployment because of COVID.
- That's almost **20%** of Virginia's total population
- and over **1000% increase** in claims filed from the previous year.

The number of small businesses open in Virginia decreased by 31.2%

Percent Change in Number of Small Businesses Open*

In **Virginia**, as of **March 12 2021**, the number of small businesses open **decreased** by **31.2%** compared to January 2020.



Mar 12, 2021

-31.2%

All Small Businesses

data source: **Womply**

*Change in small businesses open (defined as having financial transaction activity), indexed to January 4-31 2020 and seasonally adjusted. This series is based on data from Womply.

last updated: ***March 21, 2021*** *next update expected:* ***March 26, 2021***

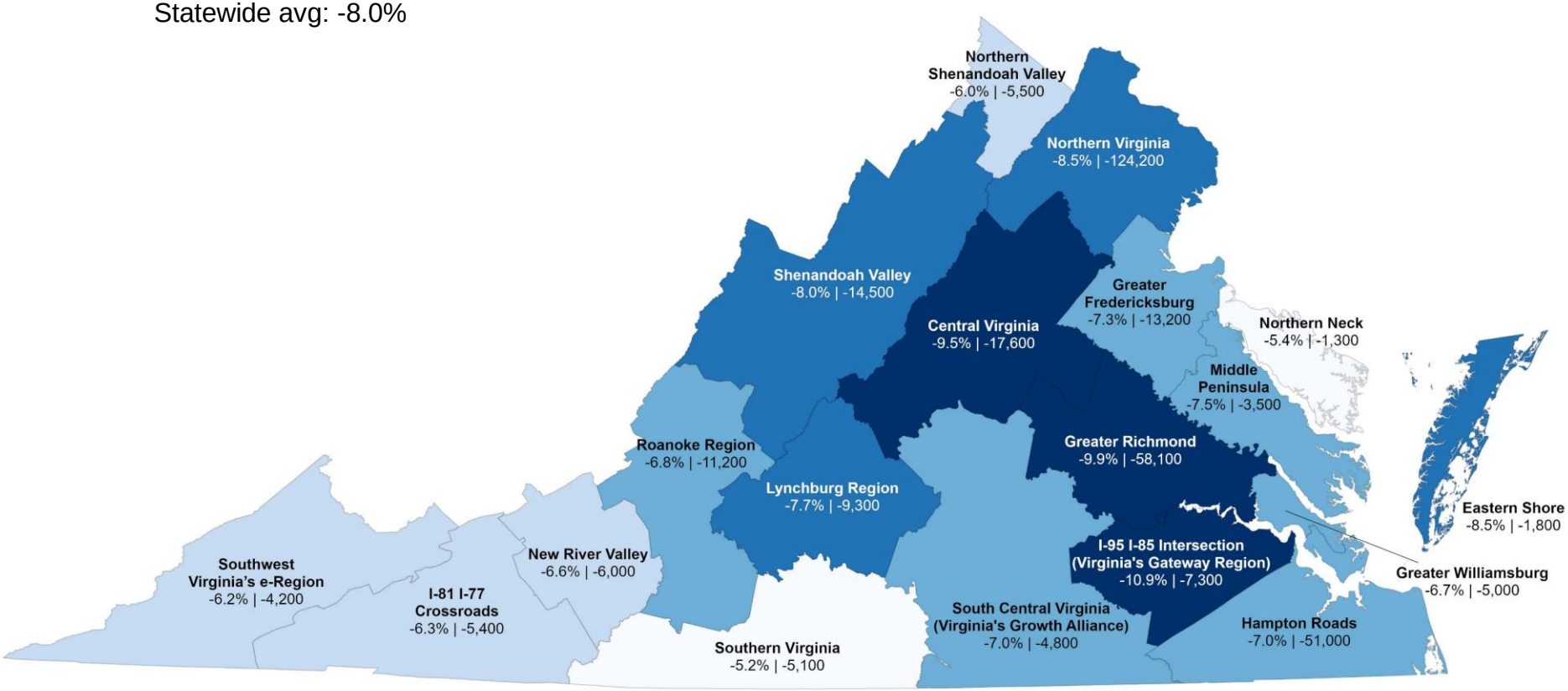
visit tracktherecovery.org to explore

VIRGINIA HAS SEEN PROGRESSIVE RECOVERY OF JOBS LOST, BUT NOT ALL REGIONS HAVE RECOVERED TO THE SAME EXTENT

Employment change from Feb '20 - Feb '21
% | absolute employment change, not seasonally adjusted

-10.9% -5.2%

Statewide avg: -8.0%

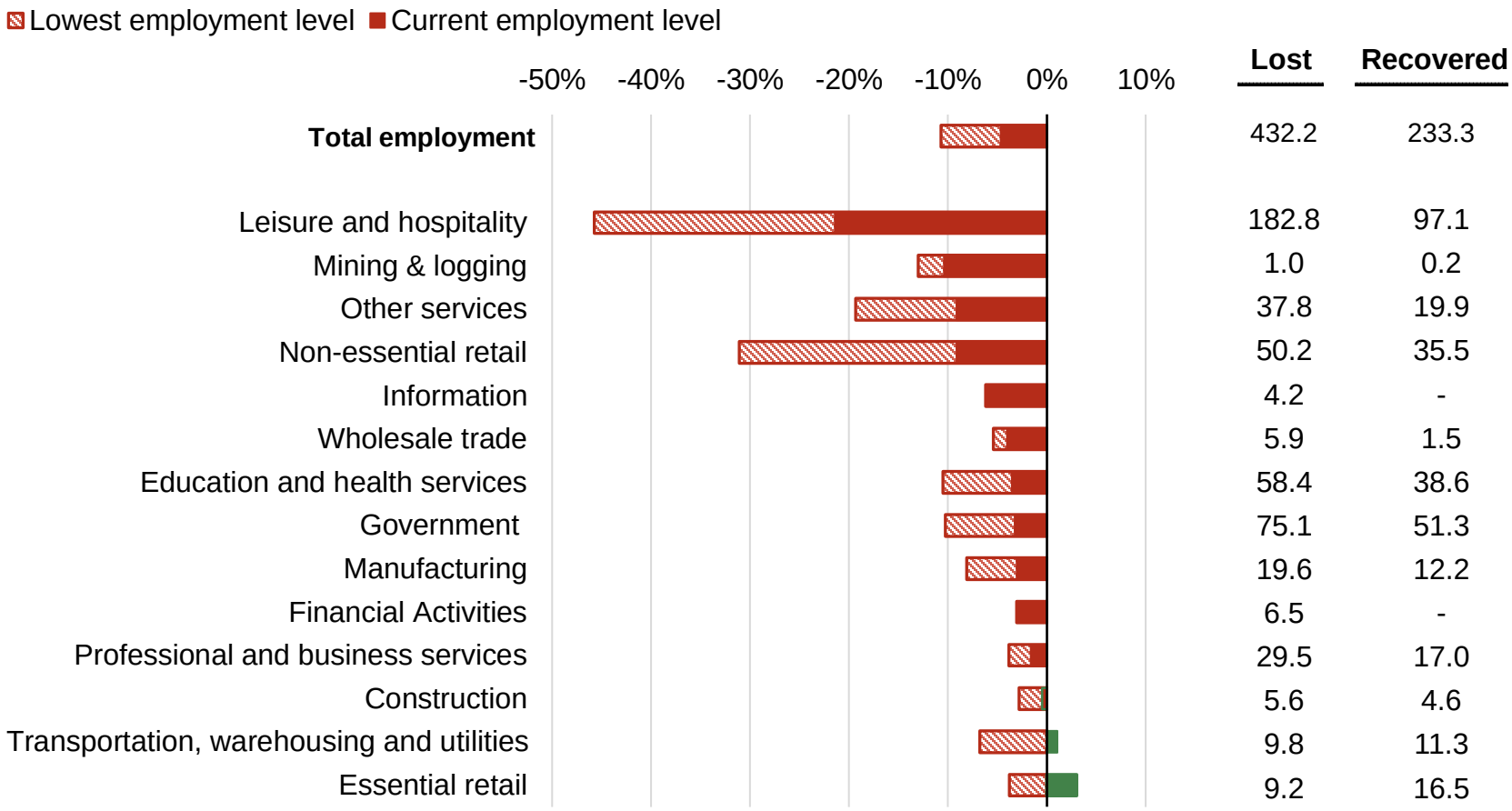


Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

DESPITE IMPROVEMENTS SINCE APRIL 2020, VA EMPLOYMENT REMAINS BELOW FEBRUARY 2020 LEVELS IN MOST MAJOR SECTORS

Virginia employment change since January 2020 by major sector
% non-farm payroll employment change from Jan '20 – Feb '21, not seasonally adjusted

Change in # jobs since Jan.
Thousands of jobs



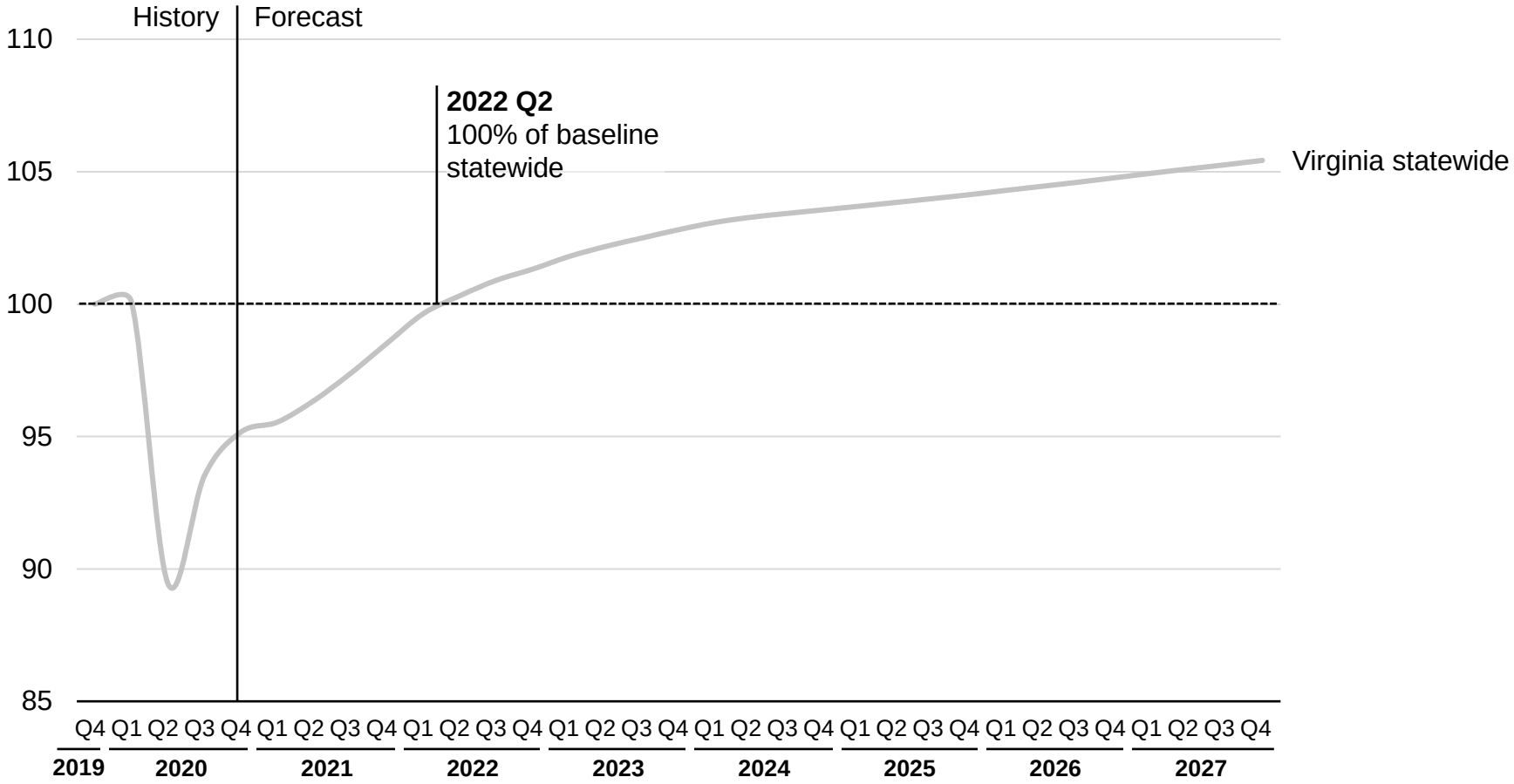
	Lost	Recovered
Total employment	432.2	233.3
Leisure and hospitality	182.8	97.1
Mining & logging	1.0	0.2
Other services	37.8	19.9
Non-essential retail	50.2	35.5
Information	4.2	-
Wholesale trade	5.9	1.5
Education and health services	58.4	38.6
Government	75.1	51.3
Manufacturing	19.6	12.2
Financial Activities	6.5	-
Professional and business services	29.5	17.0
Construction	5.6	4.6
Transportation, warehousing and utilities	9.8	11.3
Essential retail	9.2	16.5

[1]Essential / non-essential retail employment change based on assumptions from national trends due to lack of data at state level

Source: Current Employment Statistics

STATEWIDE, EMPLOYMENT IS CURRENTLY PROJECTED TO REACH PRE-COVID-19 LEVELS BY MID-2022

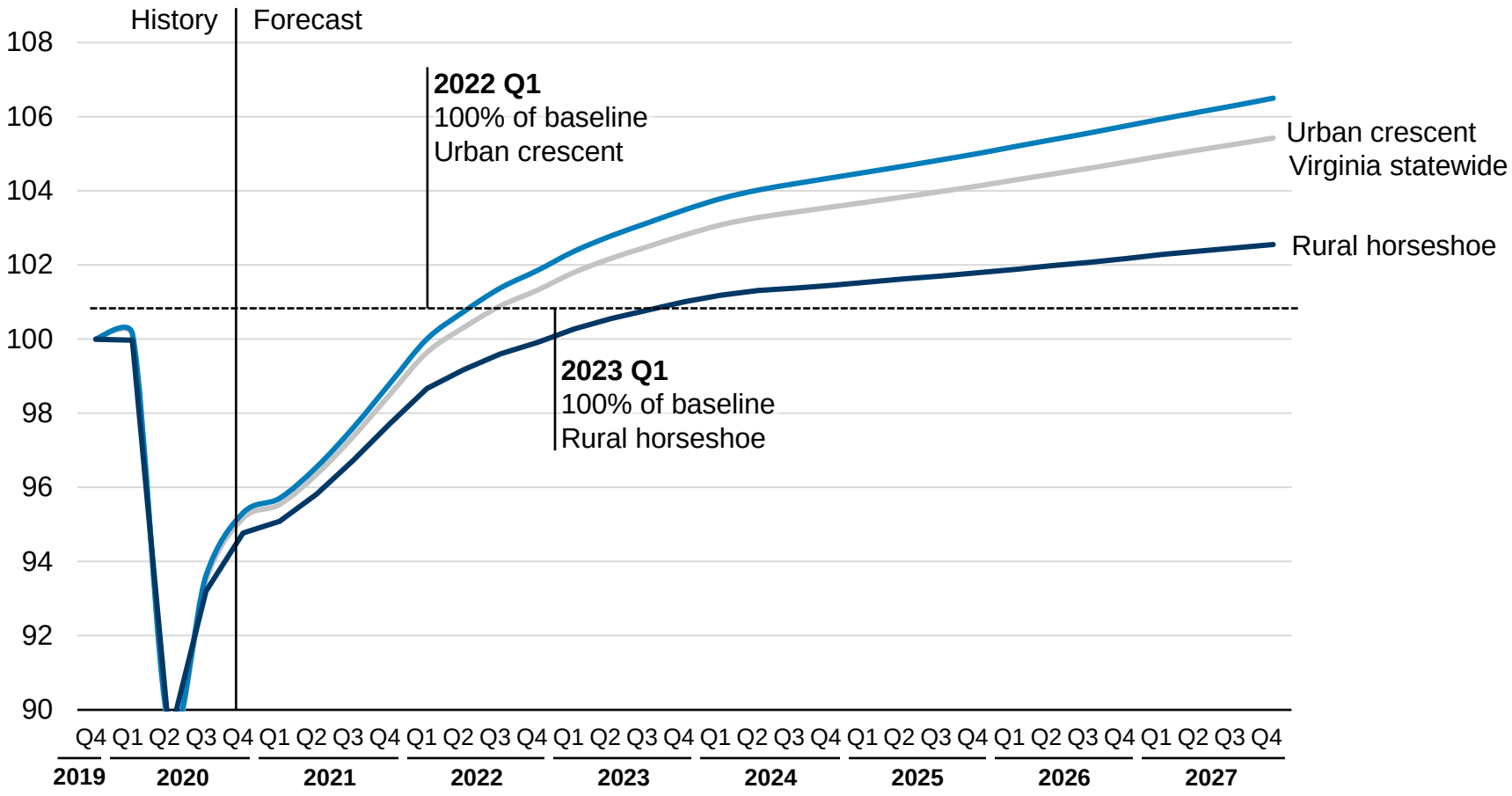
Forecasted quarterly employment as % of pre-COVID-19 baseline
Total non-farm payroll employment, indexed to actual 2019 Q4 employment



Source: Moody's Analytics (March baseline forecast); Census Bureau; VEDP analysis

OUTSIDE URBAN CRESCENT, RECOVERY CURRENTLY EXPECTED TO LAG BY 1 YEAR, BUT GAP LIKELY MUCH LARGER IF GROWTH SLOWS

Forecasted quarterly employment as % of pre-COVID-19 baseline
Total non-farm payroll employment[1], indexed to actual 2019 Q4 employment

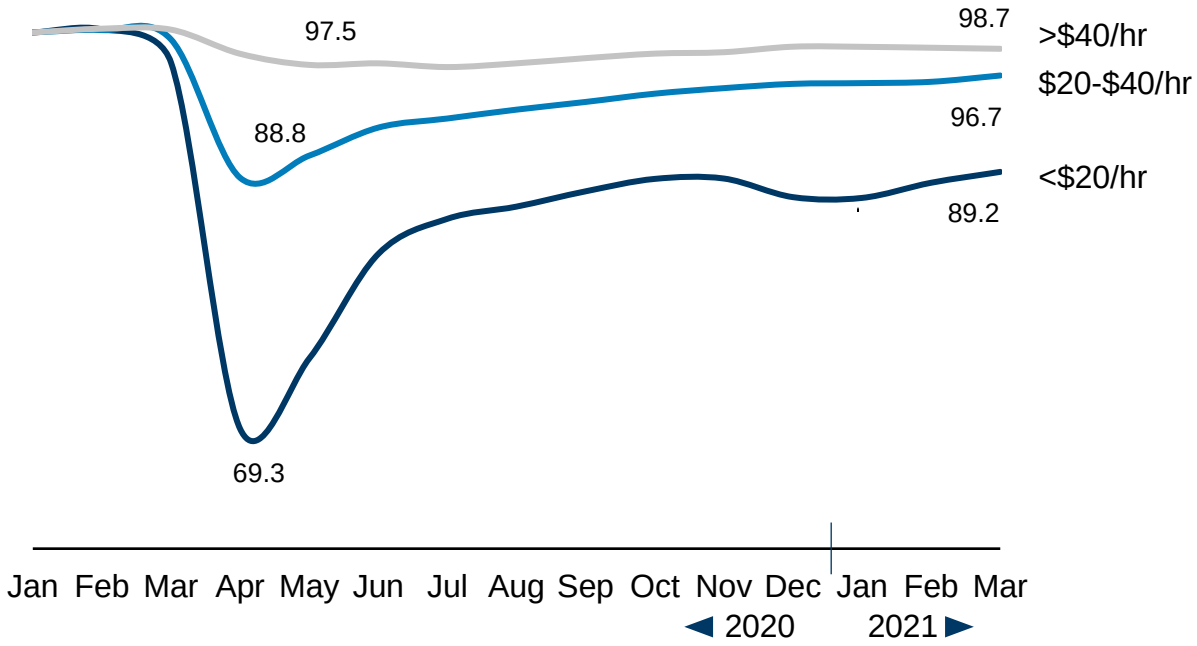


[1]Locality forecast data have been corrected to match statewide employment forecasts; data differs slightly due to methodological differences in Moody's state and sub-state models

Source: Moody's Analytics (March baseline forecast); Census Bureau; VEDP analysis

COVID-19 ECONOMIC SHOCK HAS DISPROPORTIONATELY IMPACTED LESS EDUCATED, MINORITIES, WOMEN, & LOWER WAGE EARNERS

Change in U.S. employment by average industry earnings
Non-farm payroll jobs, Jan '20 - Mar '21, indexed to Jan. '20 employment levels



Virginia workers earning less than $20/hour[1]

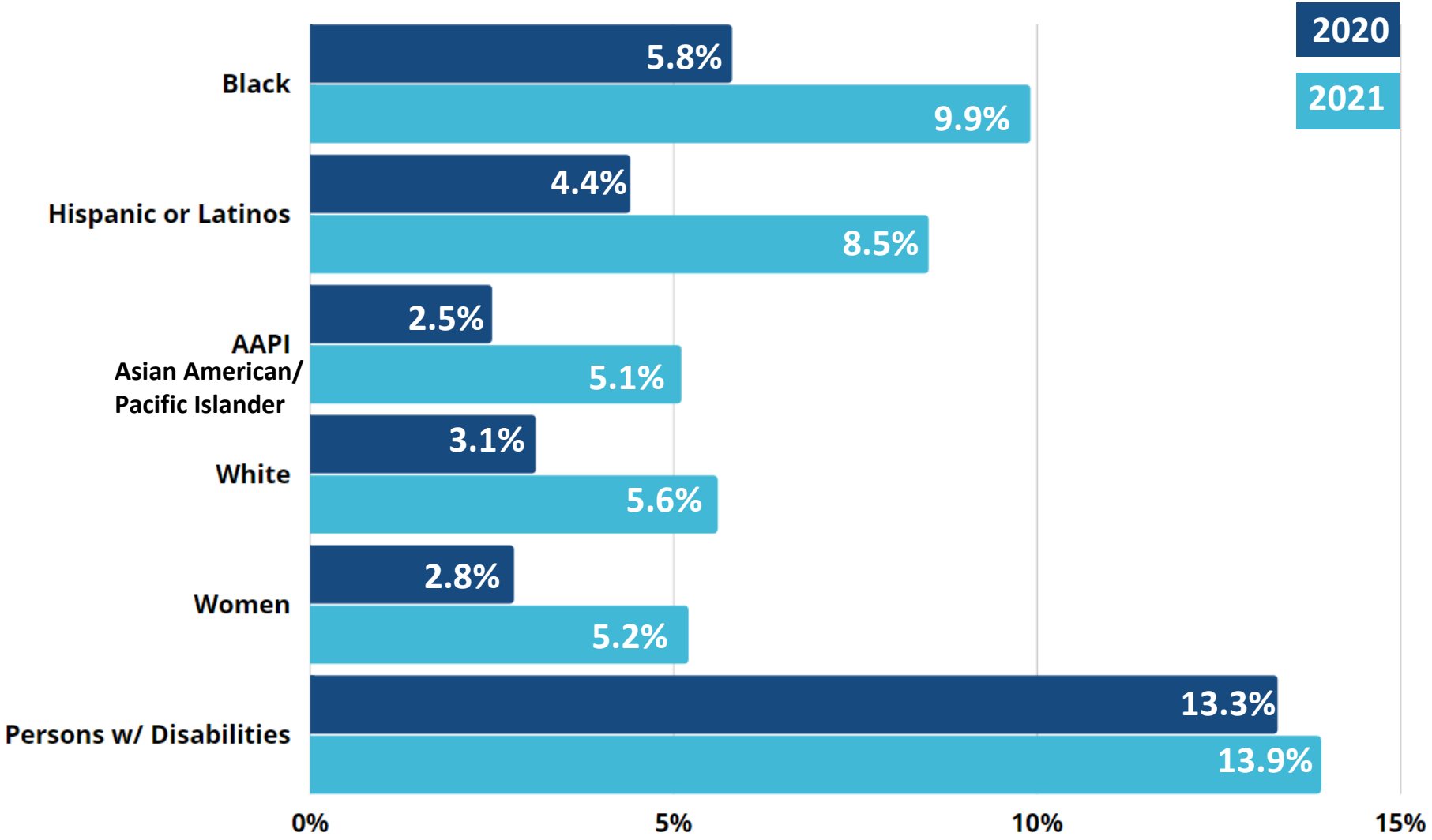
22%
Have a Bachelor's degree or higher (vs. 77% of workers earning >$40/hr)

45%
Are non-white / Hispanic (vs. 30% of workers earning >$40/hr)

55%
Are women (vs. 35% of workers earning >$40/hr)

[1]Employed persons in 2019, based on wages income earned in previous 12 months
Source: Current Employment Statistics; American Community Survey microdata retrieved using IPUMS; VEDP analysis

U.S. UNEMPLOYMENT RATE: FEB 2020 vs FEB 2021



SKILLED WORKFORCE

Student **learning loss** as a result of COVID

New student enrollment in Virginia colleges and universities for the 2020-2021 school year **decreased by 8%** since the previous year*

Global competition for talent

SKILLED WORKFORCE

Countries with the most STEM graduates in 2018
(the latest available data)

China	4,700,000
India	2,600,000
U.S.	698,000
Russia	497,000
Brazil	227,000
U.K.	198,000
Germany	102,000

HEALTH CARE

Greater reliance on **technology & broadband** to offer access to medical care

Protecting **employer provided health insurance** while controlling costs & ensuring access to health care for everyone

INFRASTRUCTURE

Aging infrastructure

Ensuring **resiliency** in new modes of energy & transportation infrastructure

Logistics/supply chain **impacts from COVID**

HOUSING

Importance of Housing to **Economic Growth**

Major housing **Inventory Shortage**

According to the Virginia Realtors, **Inventory is Down 44%.**

NEXT STEP:

BLUEPRINT VIRGINIA 2030

A Business Plan for the Commonwealth

VIRGINIA CHAMBER

THE VOICE of BUSINESS

BLUEPRINT VIRGINIA 2030: CO-CHAIRS

SAIC®

Nazzic S. Keene

Chief Executive Officer

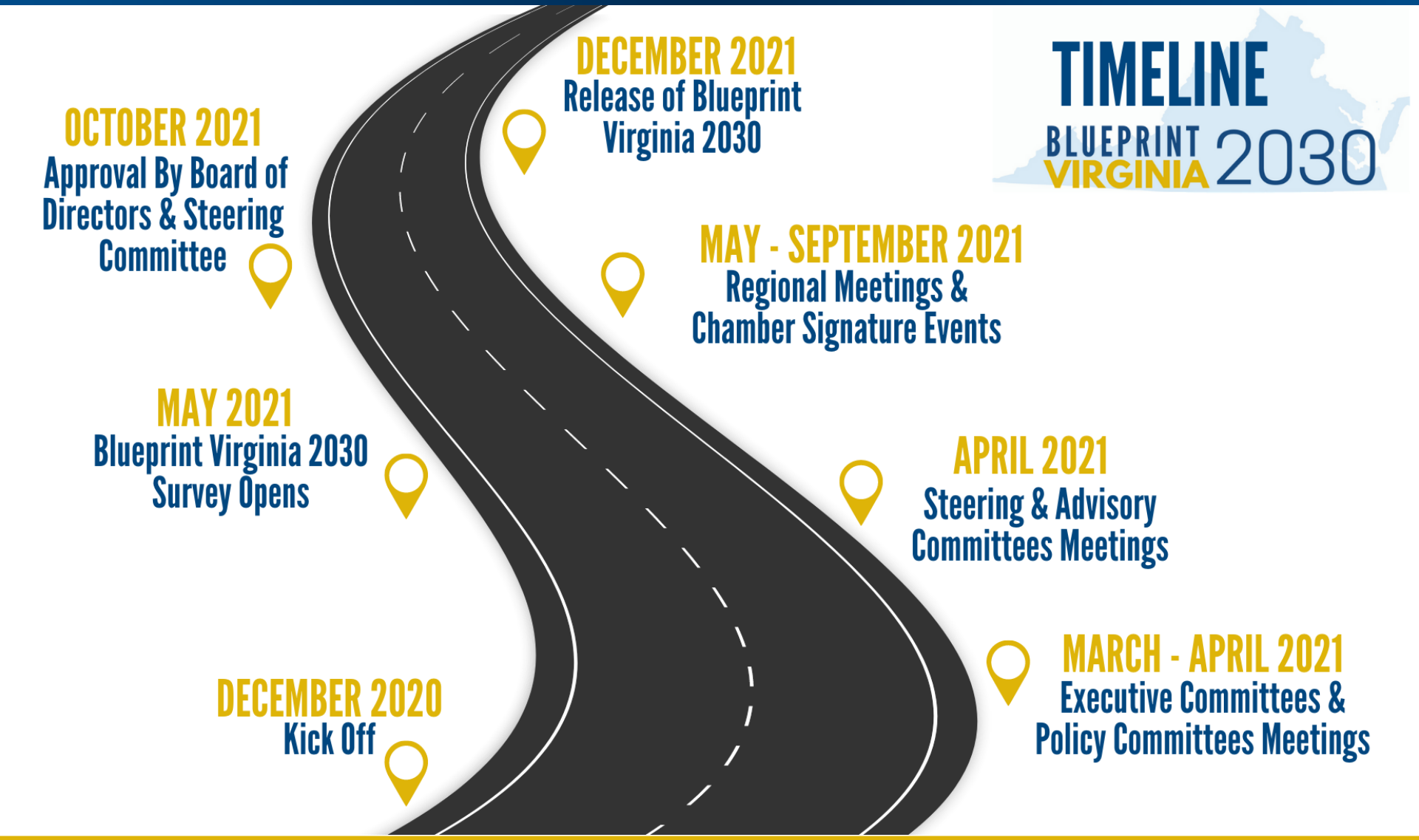
Dominion Energy®

Edward H. Baine

President–Dominion Energy Virginia

BLUEPRINT VIRGINIA 2030: THE PROCESS

BLUEPRINT VIRGINIA 2030: THE TIMELINE



BLUEPRINT VIRGINIA 2030 REGIONAL TOUR

REGIONAL TOUR MEETINGS

VIRTUAL SCHEDULE

Wednesday, May 5, 2021
Go Virginia Region 1

Wednesday, May 12, 2021
Go Virginia Region 2

Wednesday, May 26, 2021
Go Virginia Region 3

Wednesday, June 24, 2021
Go Virginia Region 4

Wednesday, June 30, 2021
Go Virginia Region 6

Wednesday July 21, 2021
Go Virginia Region 7

Wednesday, July 28, 2021
Go Virginia Region 8

Wednesday, August 4, 2021
Go Virginia Region 9

Wednesday, August 11, 2021
Go Virginia Region 5

BLUEPRINT VIRGINIA 2030 SIGNATURE EVENTS

SIGNATURE EVENT SCHEDULE

Virginia Conference on Corporate Sustainability & Energy Diversity
May 20, 2021
VIRTUAL

Virginia Health Care Conference
June 3, 2021
VIRTUAL

Virginia Veterans and Military Affairs Conference
September 2021
LOCATION TBD

Virginia Education and Workforce Conference
October 2021
LOCATION TBD

12th Annual Virginia Economic Summit
December 3, 2021
LOCATION TBD

BLUEPRINT VIRGINIA 2030

STEERING COMMITTEE
Establish priority issues and determine actionable goals

ADVISORY COUNCIL
Tasked with providing thought leadership, guidance, and recommendations across all Blueprint Virginia 2030 policy areas of focus. Advisory Council will also review the areas of focus to develop policy recommendations that promote diversity & inclusion to ensure Blueprint Virginia 2030 promotes greater equity across all policy areas.

EXECUTIVE COMMITTEE
Develop a situation analysis, baseline assessment, and top priorities for each ***BLUEPRINT VIRGINIA*** area of focus in collaboration with the Blueprint Policy Committees

BLUEPRINT VIRGINIA POLICY COMMITTEES
- Advanced Manufacturing
- Business Climate
- Corporate Sustainability & Environmental
- Energy
- Health Care
- Housing
- Infrastructure & Broadband
- Innovation & Technology
- Military and Veterans Affairs
- Transportation
- Workforce & Education

These initial policy committees will have sub-section working committees

REGIONAL OUTREACH
Utilize existing and developing regional economic development plans and regional meetings across the Commonwealth to shape ***BLUEPRINT VIRGINIA*** goals

Collaboration with GO Virginia regional councils

Collaboration with economic development and business groups

Local Chambers of Commerce

PARTICIPANTS FROM REGIONAL STRATEGIC DISCUSSIONS AND GRASSROOTS OUTREACH

BLUEPRINT VIRGINIA 2030 SPONSORS

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An alliance of hospitals and health delivery systems

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SUNTRUST
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Transurban
troutman pepper
WestRock
WGL
ENERGY ANSWERS. ASK US.

MEET THE Virginia Chamber's FOUNDATION & COMMUNICATIONS TEAM

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BLUEPRINT VIRGINIA 2030 SURVEYING

Chamber Website Survey
MAY 2021

Executive Committees Surveys
SPRING 2021

Regional Meetings Surveys
SPRING/SUMMER 2021

Signature Events Surveys
SPRING/FALL 2021

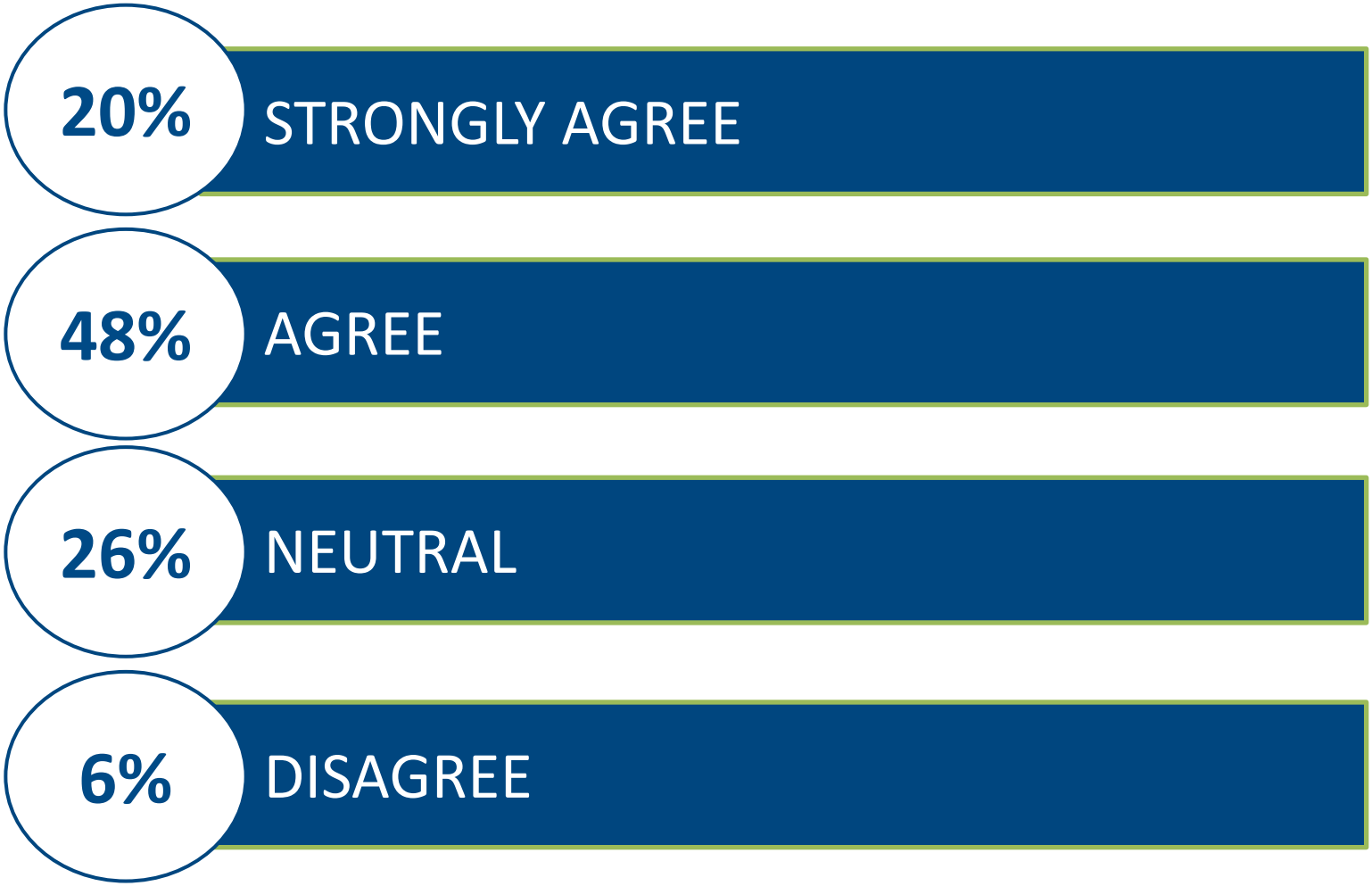
VA CHAMBER FOUNDATION

BLUEPRINT VIRGINIA 2030

REGION 3 SURVEY RESULTS

BLUEPRINT VIRGINIA 2030 POLLING DATA

Virginia's economy is headed in the right direction.



* Data current as of May 26, 2021

BLUEPRINT VIRGINIA 2030 POLLING DATA

Virginia is doing a good job preparing the workforce that businesses need.

* Data current as of May 26, 2021

BLUEPRINT VIRGINIA 2030 POLLING DATA

Virginia has an environment that encourages entrepreneurs and businesses to innovate.

* Data current as of May 26, 2021

BLUEPRINT VIRGINIA 2030 POLLING DATA

Which areas do you believe have the most impact on Virginia's overall economic competitiveness?

1. Workforce and Education
2. Business Climate
3. Innovation and Technology
4. Transportation
5. Housing

* Data current as of May 26, 2021

BLUEPRINT VIRGINIA 2030 POLLING DATA

If Virginia could make additional investments in education and workforce development programs, where should the additional investments go?

1. INTERNSHIPS/APPRENTICESHIPS
2. K-12
3. EARLY CHILDHOOD EDUCATION

* Data current as of May 26, 2021

BLUEPRINT VIRGINIA 2030 POLLING DATA

Where do you think Virginia should be concentrating its infrastructure investments?

1. BROADBAND
2. SCHOOL MAINTENANCE
3. TRANSPORTATION

* Data current as of May 26, 2021

BLUEPRINT VIRGINIA 2030 POLLING DATA

What is the most important component of health care to businesses and their workforce?

1. AFFORDABILITY & TOTAL COST OF CARE
2. QUALITY OF CARE
3. ACCESSIBILITY

* Data current as of May 26, 2021

BLUEPRINT VIRGINIA 2030 POLLING DATA

What is your greatest priority regarding energy?

1. AFFORDABILITY
2. RELIABILITY
3. CONSERVATION

* Data current as of May 26, 2021

BLUEPRINT VIRGINIA 2030 POLLING DATA

What is the best way for Virginia to increase the number of advanced manufacturers in the Commonwealth?

1. BUILD THE WORKFORCE OF THE FUTURE
2. INCREASE THE NUMBER OF BUSINESS READY SITES FOR DEVELOPMENT
3. INVEST IN RESEARCH & DEVELOPMENT TO GROW THESE OPPORTUNITIES

BLUEPRINT VIRGINIA 2030 POLLING DATA

What approach would be most effective for the state to take to support sustainability efforts and encourage environmental stewardship?

1. IMPROVE PUBLIC INFRASTRUCTURE & LEAD BY EXAMPLE
2. FINANCIAL INCENTIVES

* Data current as of May 26, 2021

BLUEPRINT VIRGINIA 2030 POLLING DATA

What is Region 3's greatest barrier to affordable and quality housing?

1. LOW INVENTORY
2. POPULATION DENSITY
3. OTHER

* Data current as of May 26, 2021

BLUEPRINT VIRGINIA 2030 POLLING DATA

What is the greatest area for improvement in preparing for the next pandemic?

1. EARLY DETECTION & MITIGATION THROUGH OUR PUBLIC HEALTH INFRASTRUCTURE
2. ECONOMIC RESILIENCY OF BUSINESSES
3. DOMESTIC AND GLOBAL SUPPLY CHAIN RESILIENCY

* Data current as of May 26, 2021

BLUEPRINT VIRGINIA 2030 POLLING DATA

For Region 3, what is the most important potential infrastructure investment for your region?

1. INCREASED BROADBAND INFRASTRUCTURE FOR UNDERSERVED AREAS
2. SCHOOLS
3. OTHER

* Data current as of May 26, 2021

BLUEPRINT VIRGINIA 2030 POLLING DATA

For Region 3, what is the most important industry for continued growth?

1. ADVANCED MANUFACTURING
2. BUSINESS SERVICES & IT DATA CENTERS
3. OTHER *(WORKFORCE PREPARDNESS AND SMALL BUSINESS SUPPORT)*

* Data current as of May 26, 2021

BLUEPRINT VIRGINIA 2030 POLLING DATA

Do you have any additional observations, policy recommendations, or comments that should be considered?

VIRGINIA CHAMBER

THE VOICE of BUSINESS

Blueprint Virginia 2030 Overview
GO Virginia Region 3

Barry DuVal, President & CEO

The GO Virginia Region 3 2021 Growth & Diversification Plan Update

Was Prepared By:

The RiverLink Group
Intersection of Community & Economic Development Services

In partnership with

LONGWOOD
OFFICE OF COMMUNITY
AND ECONOMIC DEVELOPMENT

Community Futures

SOUTHSIDE
PLANNING DISTRICT COMMISSION

Nancy Pool, Contract Manager