



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

*GO Virginia Region 2*

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## **GO Virginia Region 2 Executive Committee**

October 12, 2023, 1:00 p.m.-3:00 p.m.

Roanoke Higher Education Center, Room 716, 108 N Jefferson Street,  
Roanoke, Virginia, 24016.

- Introductions (1:00-1:05)
- Financial Report and KPI (1:05-1:15)
- Project proposals (1:15-1:50)
  - “Developing IT & Cybersecurity Certification Pipeline to Advance Cluster Growth (ITCCP)” – Radford University Economic Development
  - “Materials and Machinery Cluster Scale-Up” – New River Valley Regional Commission
- Special Updates
  - Report of G&D updates (1:50-2:20)
  - Jay Dickens, Blue Ridge Innovation Corridor (2:20-2:40)
- Council Business (2:40-3:00)
  - Quarterly project reporting
  - Minutes

The meeting will adjourn at 3:00p.m.

Public comment is welcome in writing. Please submit to Region 2 staff, John Provo, [jprovo@vt.edu](mailto:jprovo@vt.edu) or Rachel Jones, [rachelcj@vt.edu](mailto:rachelcj@vt.edu) by 10/11 at 1:00p.m.

**Region 2 Allocations**

Updated 10/6/2023

FY 23 Per Capita Projects

FY 23 Allocation	<b>\$1,527,228.00</b>
Transfer from FY18	<b>\$28,658.12</b>
Transfer from FY21 Per Capita	<b>\$506,000.00</b>
Transfer from FY 21/22 Capacity Building	<b>\$106,575.67</b>
Transfer from FY22 Per Capita	<b>\$90,203.00</b>
Industry 4.0 for the ACE Workforce	-\$500,000.00
Expanding Welding Training Capacity & Jobs in the Roanoke Valley	-\$166,667.00
Lynchburg Beacon of Hope Career Acceleration Program	-\$540,000.00
Falling Branch Corporate Park Phase II Regional Site Development	-\$324,000.00
Strengthening Entrepreneur Impact- RAMP	-\$577,800.00
<b>FY23 Remaining Balance</b>	<b>\$150,197.79</b>

FY24 Per Capita Projects

FY24 Allocation	\$1,520,102.00
<b>FY24 Remaining Balance</b>	<b>\$1,520,102.00</b>
<b>Total Remaining Balance FY23/FY24</b>	<b>\$1,670,299.79</b>

**FY 23/24 Capacity Building (Support)**

FY23 Allocation	\$250,000.00
FY24 Allocation	\$250,000.00
FY23 Drawdown	-\$166,058.00
<b>Current Balance</b>	<b>\$333,942.00</b>

**Applications Under Consideration (Per Capita)**

NRV Materials and Machinery Cluster Scale-up	-\$98,859.00
Developing IT & Cybersecurity Certification Pipeline (ITCCP)	-\$202,872.39
ACA Classical & CTE Academy Welding	-\$674,690.04
<b>Total:</b>	<b>-\$976,421.43</b>
<b>Balance if All Approved:</b>	<b>\$693,878.36</b>

**FY24 Planning Cap**

<b>FY24 Planning Cap</b>	<b>\$250,000.00</b>
<i>Planning applications</i>	\$98,859.00
<i>Percentage of planning cap</i>	40%

**Project Status Summary**

Project Type & FY	GOVA Funding Approved	GOVA Drawn Down to date	GOVA Funds Remaining	Match Funding	Match Drawn Down	Match Funds Remaining	Admin Fee	Admin Fee Draw Down	Admin Fee Remaining
Per Capita FY18 Projects:	\$1,115,382.03	\$1,086,718.14	\$28,663.89	\$3,252,380.71	\$2,901,110.76	\$353,216.13			
Per Capita FY19 Projects:	\$1,197,486.00	\$1,058,036.14	\$125,192.09	\$1,732,722.00	\$1,597,744.44	\$202,637.60			
Per Capita FY20 Projects:	\$1,782,567.00	\$1,622,794.44	\$159,772.56	\$1,272,290.00	\$1,166,737.06	\$141,145.26	\$27,140.00	\$27,140.00	\$0.00
ERR FY20 Projects:	\$1,110,700.00	\$1,109,141.94	\$1,558.06	\$566,610.00	\$570,743.57	\$0.00	\$23,598.00	\$23,598.00	\$0.00
Per Capita FY21 Projects:	\$844,157.00	\$510,302.40	\$333,854.60	\$695,042.00	\$551,910.11	\$143,131.89	\$25,367.00	\$8,822.35	\$16,544.65
Per Capita FY22 Projects:	\$1,442,743.00	\$411,281.74	\$1,031,461.26	\$999,800.00	\$300,896.73	\$698,904.36	\$106,786.00	\$30,465.28	\$76,320.72
Per Capita FY23 Projects:	\$1,530,667.00	\$64,804.27	\$1,465,862.73	\$5,205,966.77	\$50,676.99	\$5,155,289.78	\$113,382.00	\$4,799.79	\$108,582.21
Per Capita FY24 Projects:									
<b>TOTAL:</b>	<b>\$9,023,702.03</b>	<b>\$5,863,079.07</b>	<b>\$3,146,365.19</b>	<b>\$13,724,811.48</b>	<b>\$7,139,819.66</b>	<b>\$6,694,325.02</b>	<b>\$182,891.00</b>	<b>\$90,025.63</b>	<b>\$92,865.37</b>

Project Name	Project Type & FY	Start Date	End Date	GOVA Funding Approved	GOVA Drawn Down to date	GOVA Funds Remaining	Match Funding	Match Reported to Date	Match Funds Remaining	Notes
ELITE	Per Capita (FY20)	10/20/2020	9/30/2023	\$290,000.00	\$290,000.00	\$0.00	\$145,000.00	\$158,225.54	\$0.00	
Health Sciences Talent Pipeline	Per Capita (FY21)	10/1/2021	7/31/2023	\$100,000.00	\$85,248.01	\$14,751.99	\$106,355.00	\$103,908.75	\$2,446.25	
Project Eagle+	Per Capita (FY21)	12/15/2021	12/14/2023	\$599,437.00	\$315,443.45	\$283,993.55	\$503,687.00	\$385,617.60	\$118,069.40	
Regional Talent Strategy Implementation	Per Capita (FY22)	6/1/2022	5/31/2024	\$315,911.00	\$99,962.70	\$215,948.30	\$189,354.00	\$65,033.90	\$124,320.10	
Workforce & Entrepreneurship in a Reg. Makerspace (Vector Space)	Per Capita (FY22)	6/14/2022	6/30/2024	\$324,000.00	\$171,842.42	\$152,157.58	\$162,100.00	\$118,428.58	\$43,671.42	
CS/ Root	Per Capital (FY22)	10/1/2022	9/30/2024	\$175,000.00	\$41,736.63	\$133,263.37	\$175,000.00	\$46,183.16	\$128,816.84	
Airport Commerce Park Regional Development	Per Capita (FY22)	5/1/2023	5/1/2024	\$190,000.00	\$0.00	\$190,000.00	\$95,000.00	\$0.00	\$95,000.00	
Center for Entrepreneurship	Per Capita (FY22)	3/14/2023	3/14/2025	\$240,192.00	\$0.00	\$240,192.00	\$120,096.00	\$0.00	\$120,096.00	
Bedford Metal Workforce Training Center	Per Capita (FY22)	8/1/2023	8/1/2024	\$99,900.00	\$0.00	\$99,900.00	\$201,000.00	\$0.00	\$201,000.00	
Expanding Welding BTEC	Per Capita (FY23)	12/13/2022	12/12/2024	\$166,667.00	\$32,879.52	\$133,787.48	\$99,666.77	\$17,880.11	\$81,786.66	
Industry 4.0 for the ACE Workforce	Per Capita (FY23)	3/1/2023	2/28/2025	\$500,000.00	\$31,924.75	\$468,075.25	\$251,300.00	\$32,796.88	\$218,503.12	
Lynchburg Beacon of Hope Career Acceleration Program	Per Capita (FY23)	8/1/2023	8/1/2025	\$540,000.00	\$0.00	\$540,000.00	\$270,000.00	\$0.00	\$270,000.00	
Falling Branch Corporate Park Regional Site Development	Per Capita (FY23)	7/1/2023	7/1/2025	\$324,000.00	\$0.00	\$324,000.00	\$4,585,000.00	\$0.00	\$4,585,000.00	

## Per Capita Application

### Developing IT & Cybersecurity Certification Pipeline to Advance Cluster Growth (ITCCP)

**Applicant:** Radford University Division of Economic Development and Corporate Education

**Participating Localities:** Montgomery County (in-kind match), Pulaski County (in-kind match), Radford City (in-kind match)

**Investment Strategy:** Talent Development, Attraction and Retention

**Targeted Industries:** Information Technology and Emerging Tech (primary), Transportation and Autonomy Cluster (secondary), Life Sciences & Healthcare (secondary), and Materials and Machinery Cluster (secondary)

**Type of Project:** Per Capita Implementation

**Project Goal(s):** Increase the number of professionals with IT and cybersecurity certifications that will support the growth of critical in-demand higher wage occupations in Region 2's IT & Emerging Tech cluster as well as other priority clusters that utilize similar talent.

**Project Description:** The project will 1) enhance coordination and communication among higher education partners (Radford University, Virginia Tech, New River Community College) and regional employers to align certification pipeline with cluster needs; 2) develop a pipeline of talent from partnering institutions with IT and cybersecurity certifications through on-campus outreach; and 3) connect regional employers to the pipeline of credentialed professionals to fill in-demand occupations as well as educating them on the benefits of upskilling incumbent workers through certifications. The project will also establish a Pearson VUE testing center at the Hub at Radford to make certification testing for IT and cybersecurity certifications more accessible to students and incumbent workers in the New River Valley. GO Virginia funds will be used for salaries and fringe benefits for Radford University staff for work related to this project, travel time for staff, testing center setup and equipment, software subscriptions, outreach costs for events organized and hosted for project activities, program promotional materials, office supplies, indirect costs, and the GO Virginia support organization administrative fee.

#### Project Budget:

**\*Applicant has requested a match waiver to reduce both the total match (to 2:1) and local match (to amount committed).**

Type of Funds	Totals
GO Virginia Request	\$202,872.39
Matching Funds	\$116,863.00
Local Match	415,363 (13%)
Additional Leverage	-

<b>Total Project Budget</b>	<b>\$319,735.39</b>
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## Developing IT & Cybersecurity Certification Pipeline to Advance Cluster Growth (ITCCP)

### Products:

- Establish a Peason VUE testing center at Radford University

### Outcomes:

- **104 Credentials awarded** (including but not limited to CompTIA, Cisco, AWS, Microsoft, and Lynix)
- **10 Businesses Served** (receiving an intern, new hire, or enrollment of an incumbent working in a training course)

### Application review:

Application reviewed by Greg Feldmann, Region 2 Council Member; Quina Weber-Shirk, Region 2 support staff; Dr. Phillip Huff, University of Arkansas Little Rock

Requirements	
<b>\$1:1 Match Requirement</b>	<b>NO – total match reduction to 2:1 requested</b>
<b>Traded Sector</b>	<b>YES</b>
<b>High-wage Job Creation Potential</b>	<b>YES</b>
<b>3-year ROI (positive)</b>	<b>YES (44%)</b>
<b>5-year ROI (positive)</b>	<b>YES (260%)</b>
<b>Alignment with G&amp;D Plan</b>	<b>YES</b>
<b>Grant Management Capacity</b>	<b>YES</b>
<b>Sustainable after GOVA Funds</b>	<b>YES</b>

## Planning Application

### NRV Materials and Machinery Cluster Scale-Up

**Applicant:** New River Valley Regional Commission

**Participating Localities:** City of Radford (in-kind match), Counties of Floyd (in-kind match), Giles (in-kind match), Montgomery (in-kind match), and Pulaski (in-kind match).

**Investment Strategy:** Talent development, resource development for business start-ups and scale-ups.

**Targeted Industries:** Materials and Machinery (primary) and Transportation and Autonomy (secondary).

**Type of Project:** ECB/Planning

**Project Goal(s):** Convene regional partners and develop a 10-year roadmap for supporting materials and machinery scale-up in the NRV.

**Project Description:** The project will develop a 10-year roadmap for supporting materials and machinery scale-up in the NRV. This process will include:

1. Building and strengthening the capacity of the coalition of NRV stakeholders interested in growing this cluster through regular discussions and planning around the cluster.
2. Mapping out assets and resources that could support industry scale up in the NRV. This mapping would include not only entities in the NRV but also those in the Roanoke, Lynchburg, and Danville metro and micropolitan areas as a way of better understanding how those resources connect to the NRV cluster.
3. Identifying and prioritizing unique projects that could support ecosystem growth and transformation of the cluster. The final roadmap will also scope out and detail 2-3 of these prioritized projects; designating regional champions for advancing those projects, identifying possible funding sources for those projects, and proposing steps for advancing those projects.

#### Project Budget:

Type of Funds	Totals
<b>GO Virginia Request</b>	<b>\$98,859</b>
<b>Matching Funds</b>	<b>\$99,000</b>
Local Match	\$35,000 (35%)
<b>Additional Leverage</b>	<b>\$10,000</b>
<b>Total Project Budget</b>	<b>\$207,859</b>

## NRV Materials and Machinery Cluster Scale-Up

### Products:

- Develop a 10-year roadmap for supporting materials and machinery scale-up in the NRV.

### Application review:

Application reviewed by Paul Denham, Region 2 Council Member; Bryan David, Program Director – GO Virginia Region 3

Requirements	
<b>\$1:1 Match Requirement</b>	<b>YES</b>
<b>Traded Sector</b>	<b>YES</b>
<b>High-wage Job Creation Potential</b>	<b>YES</b>
<b>Alignment with G&amp;D Plan</b>	<b>YES</b>
<b>Grant Management Capacity</b>	<b>YES</b>
<b>Sustainable after GOVA Funds</b>	<b>YES</b>



September 22, 2023

John Provo  
GO Virginia Region 2  
1900 Kraft Dr.  
Blacksburg, VA 24061

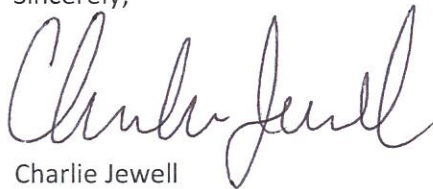
Dear John:

I am writing to request a Partial Waiver Match and Total Waiver Match for the Developing IT and Cybersecurity Certification Pipeline to Advance Cluster Growth (ITCCP) application, submitted on September 22, 2023. It is our understanding that on October 1, 2023 the requirements for per capita project implementation grants will be shifting to a 1:1 match and requiring at least 20% local match. Prior to October 1, 2023, the requirements extended by Board Policy #11 allowed for a 2:1 total match and no local match. Although the submission deadline for this round of applications was September 22, 2023, we were recently informed that the project must meet the new requirements set for enactment on October 1, 2023. The ITCCP project meets the match requirements before October 1, 2023, but not after.

Based on the guidelines approved by the GO Virginia State Board on September 12, 2023, the ITCCP project meets the eligibility criteria to request both a Total Match Waiver and a Local Match Waiver. Fifty percent of the localities participating in this project meet the Virginia Economic Development Partnership's definition for Economic Distress – Double Distress (Pulaski County and Radford City), the eligibility criteria to request a Total Match Waiver. The majority of participating localities participating are also categorized as having “high” or “above average” levels of fiscal stress in the Commission on Local Government's Fiscal Stress Index (Montgomery County, Pulaski County, Radford City), the eligibility criteria to request a full or partial Local Match Waiver. The participating localities are providing a partial match for the project (13%) and have requested the waiver in their financial support letters.

Thanks you for your time and consideration of this request.

Sincerely,



Charlie Jewell  
Director of Economic Development  
& Community Engagement  
Radford University

2023

# GROWTH & DIVERSIFICATION PLAN



OUTREACH & INTERNATIONAL AFFAIRS  
CENTER FOR ECONOMIC AND  
COMMUNITY ENGAGEMENT  
VIRGINIA TECH

# Introduction

GO Virginia’s objectives, as set by the state, are simple and provide a clear path for action. The program seeks to grow jobs that pay higher than the regional average wage, primarily through investment that is new to Virginia. This requires a focus on industries with high growth potential, featuring in-demand occupations with higher wages.

The 2023 Growth and Diversification Plan Review provides a roadmap for utilizing GO Virginia funding for projects across Region 2, which includes the Lynchburg, New River Valley, and Roanoke-Alleghany sub-regions. Each of these areas has a strong history of local cooperation, and some experience with interregional collaboration, primarily between the New River and Roanoke Valleys. Together, they all share many economic similarities: traditional industry strengths in manufacturing, transportation, and agriculture; emerging technology sectors such as green energy and automation; mixed urban and rural characteristics; and higher education and healthcare as economic and employment drivers.

This plan documents the socio-economic trajectory of this region, particularly the concentration of different industries across this footprint, their job growth rates compared to the nation, their contributions to gross regional product, the number of higher-than-average wage jobs available in these industries, and assets unique to the region that drive opportunity. The analysis of that data identifies four target “clusters”—or geographic concentrations of businesses with common markets, suppliers, technologies, and workforce needs. These four interrelated clusters offer the greatest potential for sustainable, scalable, future growth in the region.

### Priority Industry Clusters

- Transportation and Autonomy Manufacturing
- Materials and Machinery Manufacturing
- Life Sciences and Biotechnology
- IT, Engineering, and Emerging Tech



### Types of development work we fund:



Talent



Entrepreneurship



Cluster Scale Up



Sites and Infrastructure

## Summary of Target Clusters

### 2022 Wages by Target Cluster and Urbanization<sup>1</sup>

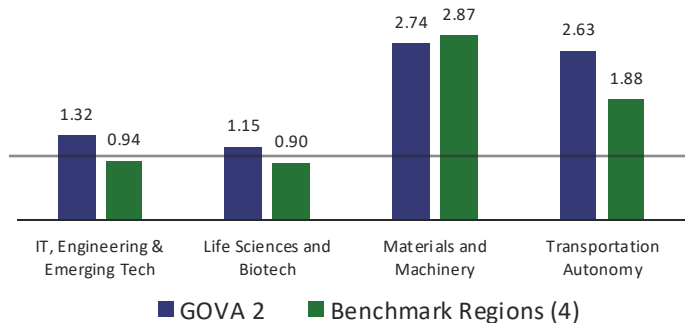
The average wage for workers in GOVA Region 2 is \$24.85. Urban areas have higher wages than rural areas with average wages of \$25.63 and \$22.74, respectively. All target clusters have higher average wages than the regional average, with a combined average of \$34.18.

Cluster	Entire Region	Urban	Rural
<b>All Industries</b>	<b>\$24.85</b>	<b>\$25.63</b>	<b>\$22.74</b>
Materials Machinery	\$38.28	\$34.21	\$44.96
Transportation Autonomy	\$33.77	\$33.95	\$33.49
Life Sci and Healthcare	\$31.83	\$33.24	\$23.32
IT, Engineering, & Emerging Tech	\$39.85	\$39.88	\$39.64

### 2022 GOVA Region 2 Target Industry Clusters<sup>2</sup>

Transportation and Autonomy	Materials and Machinery	Life Sciences and Biotechnology	IT, Engineering, & Emerging Tech
10,448 Jobs	9,830 Jobs	26,414 Jobs	13,349 Jobs
<ul style="list-style-type: none"> <li>Vehicles (eg. Trucks)</li> <li>Vehicle Parts</li> <li>Automation (Sensors, Controls, Displays)</li> </ul>	<ul style="list-style-type: none"> <li>Chemicals</li> <li>Plastics</li> <li>Metalworking and Machinery</li> </ul>	<ul style="list-style-type: none"> <li>Biopharma and Medical Devices</li> <li>Life Sciences R&amp;D</li> <li>Living Lab: Healthcare System</li> </ul>	<ul style="list-style-type: none"> <li>IT &amp; Cybersecurity</li> <li>Computer and Electrical Component Manufacturing</li> <li>Engineering Services</li> </ul>

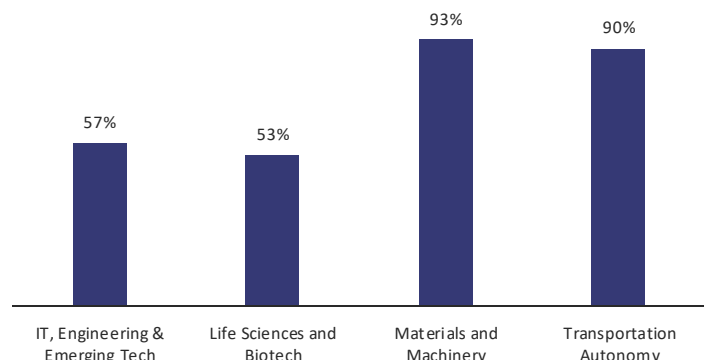
### 2022 Target Cluster Location Quotients<sup>3</sup>



Location Quotient (LQ) measures the concentration of cluster jobs compared to the nation. Values of 1.2 or above indicate greater concentration and a comparative advantage in the specific cluster. Our existing manufacturing clusters remain strong. Our two emerging clusters, Life Sciences and IT, have demonstrated growth in LQ since 2017. In 2017, GOVA Region 2 also identified peer regions<sup>4</sup> for each target cluster, based on similar economic indicators and assets. Today, the region has higher LQ levels than most prominent peer regions.

### 2022 Exported Sales by Cluster<sup>5</sup>

The GOVA program places large emphasis on traded industries of the economy, those with higher levels of exported sales. Exported sales are valuable because they bring new capital into the economy thereby promoting growth. As shown to the right, more than 50% of sales for GOVA 2 target clusters are exported; however, these clusters also include many supply chain industries that support the cluster through their in-region production and skill-aligned workforce.



(4) Peer regions: Greenville-Anderson SCMSA for Materials and Machinery & Transportation Autonomy; Chattanooga TN-GA MSA for

IT and Emerging Tech; and Birmingham-Hoover AL MSA for Biotech-Life Sciences

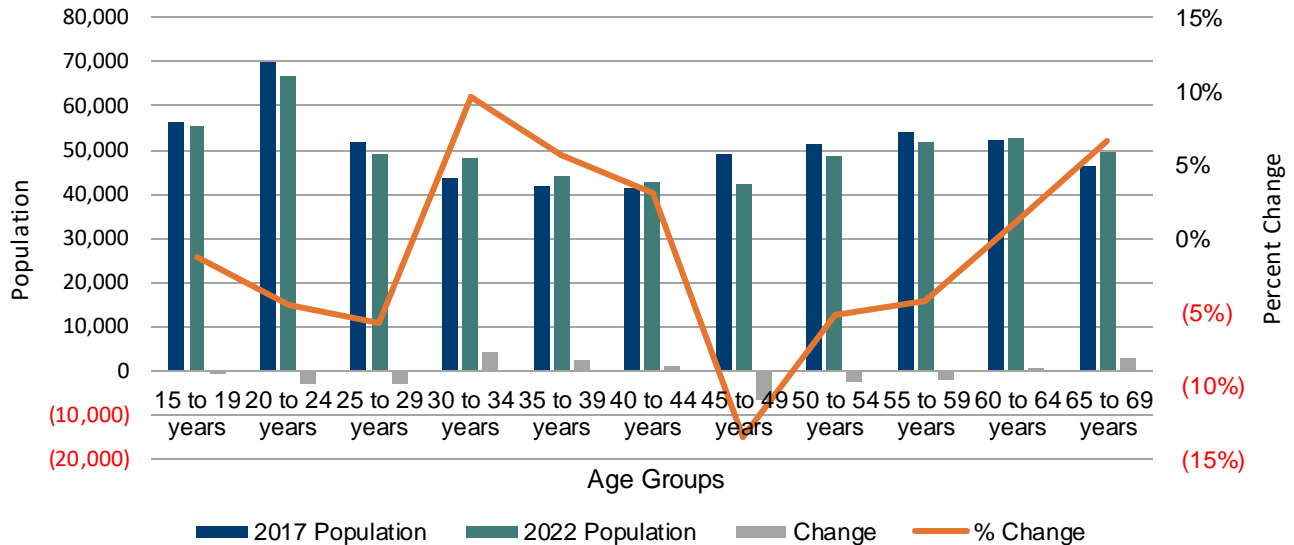
1, 2, 3, 5 Lightcast Datarun 2023.3

# State of the Regional Economy

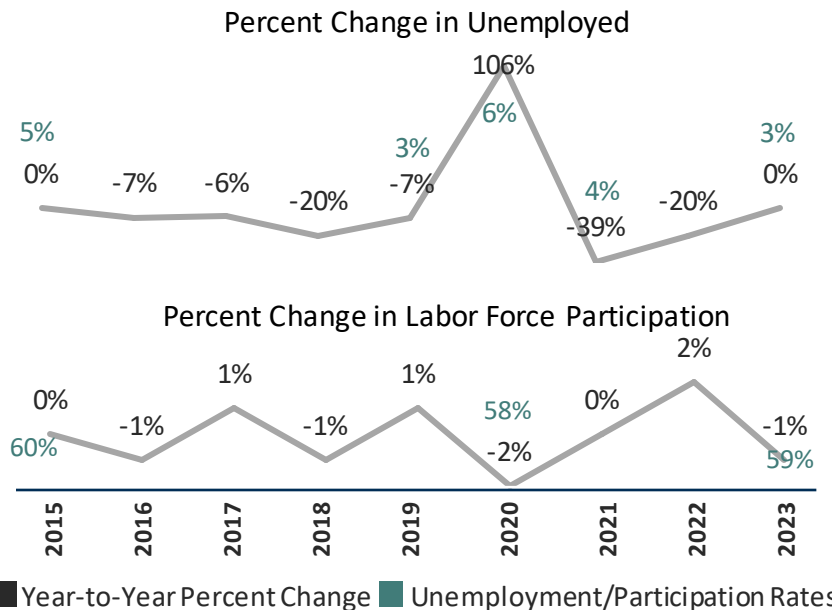
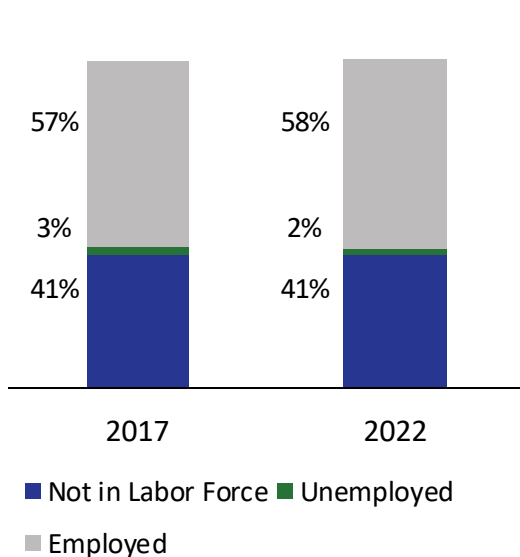
## Demographics

As of 2022, GOVA Region 2's population has experienced a **modest increase of 0.2% since 2017**, equivalent to a growth of 1,461 individuals. This growth is slower than state and national rates, which were 6% and 5% respectively. Looking ahead, projections suggest that the population will continue to grow at the same rate through 2027, suggesting some **need to attract working age adults and families** if the region is to significantly grow demographically and economically.

2017-2022 Working Age Population



Early-to-mid career adults in their 30s represent the highest proportional increase of among age groups, at 7-10%. This growth may be fueled by the region's expanding higher education institutions and technology-forward industry growth. The second highest increase aligns with national trends, an over 5% increase in seniors age 65+ years since 2017. This demographic shift brings unique challenges and opportunities related to healthcare, social services, and senior living industries. However, the region also experienced a decrease in the number of mid-to-late career residents, those in their 40s and early 50s. This dip of about 13% indicates a **possible workforce gap in supervisory and middle management positions**.

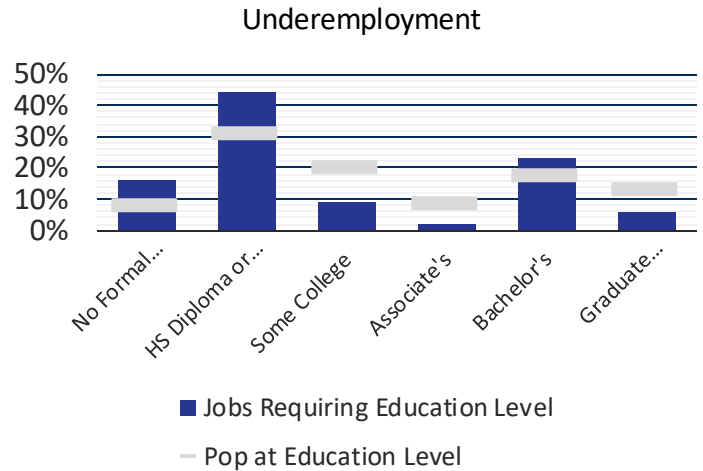
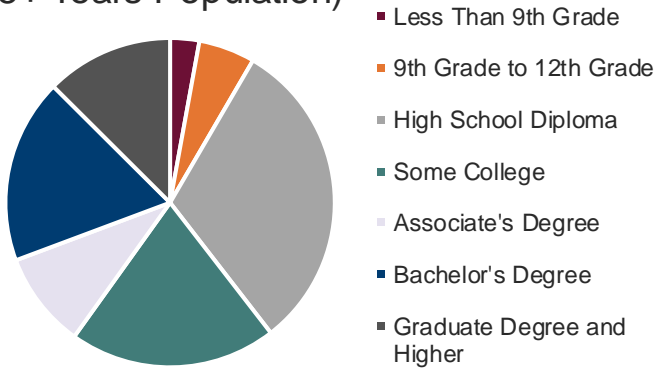


# State of the Regional Economy

## Demographics

The region has witnessed an increase in the proportion of residents with post-secondary degrees. However, this demographic data may misrepresent the proportion of available workers, as many with bachelor degrees and higher may be attending one of the region’s many higher education institutions. Interestingly, when looking at underemployment, there is distinct need to fill jobs that require no formal education or only a high school degree. These tend to be entry-level jobs but may require some degree of technical skills related to IT and math. Currently, there is very little incentive among typical entry-level workers to fill these lower wage jobs.

### Percent Educational Attainment (25+ Years Population)



Educational attainment in urban counties is relatively close to the national average, with 20.7% of residents possessing a bachelor's degree (0.1% below the national average) and 8.9% holding an associate degree (0.1% above the national average). Educational attainment levels within the rural counties show a greater difference when compared to national percentages, as 14.2% of residents possess a bachelor's degree (6.6% below the national average), while 10.2% hold an associate degree (1.4% above the national average).

## Key Workforce Challenges Inhibiting Economic Growth

The key factor that seems to be preventing greater economic growth and development in the Region 2 is limited access to a full-time skilled workforce. Industry stakeholders agree that if Region 2 is to enhance its economic vibrancy, **we must address challenges that prevent existing workforce from participating in the economy and that dissuade potential workers from coming to the area.**



### Childcare

Average childcare for infants and toddlers in GOVA2 costs \$7.8-\$10.3K per child annually. That is 10-13% of median family income needed per child.<sup>5</sup> Organizations advocating for quality and affordable early childcare include New River Valley Community Services and United Ways of SWVA and Roanoke Valley.



### Housing

Twelve percent of households face overcrowding or lack of plumbing/kitchen facilities.<sup>6</sup> Twenty-one percent have rents at 50% or more of their incomes.<sup>7</sup> Active affordable and quality housing organizations include Habitat for Humanity, Total Action for Progress, New River Valley Community Action, and United Way of SWVA.



### Behavioral Health

The national ratio of people per mental health provider is 340:1. All GOVA2 counties and independent cities except Montgomery County and the City of Roanoke have higher ratios, ranging 423:1 to 3964:1.<sup>6</sup> Blue Ridge Behavioral Healthcare and New River Valley Community Service are just two organizations providing services.

1, 2 Lightcast Datarun 2023.3  
 5 US Dept of Labor. 2023 National Database of Childcare Prices  
 6 University of Wisconsin. County Health Rankings and Roadmap 2023  
 7 2020 5-Year American Community Survey. Table B25070

## Shared Occupations<sup>1</sup>

Shared occupations are occupations which are in high demand across different industries. The table below lists the top 15 shared occupations across GOVA Region 2. Average annual openings and turnover rate are good measures of how much demand there is for each respective occupation.

The highlighted rows draw special attention to (a) occupations which don't require a four-year bachelor's degree but rely more on hard skills and (b) occupations which highlight the demand for middle management. This region is losing age groups and talent that would take middle management jobs. We compared adjusted cost of living (COL) hourly wages between GOVA2 and other 10 other MSAs such as Raleigh NC, Charlottesville VA, Richmond VA, and Jacksonville FL.

**Adjusted COL wages for white collar middle management jobs in GOVA2 are paid \$2-\$4 less per hour compared to other MSAs. Blue collar middle management positions are paid \$1-\$2.30 less per hour compared to other MSAs.**

Hard Skills



Middle Management



Description	2021 Jobs	2021-2028 % Job Change	Avg. Annual Openings	2022 Turnover Rate
Registered Nurses	7,946	9%	619	27%
General and Operations Managers	5,567	14%	633	46%
First-Line Supervisors of Office and Administrative Support Workers	3,818	(0%)	428	56%
Accountants and Auditors	2,754	5%	272	41%
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	2,559	15%	335	38%
First-Line Supervisors of Production and Operating Workers	2,262	12%	290	44%
Industrial Machinery Mechanics	1,904	9%	210	32%
Electricians	1,830	8%	243	52%
First-Line Supervisors of Mechanics, Installers, and Repairers	1,605	5%	168	44%
Human Resources Specialists	1,577	9%	179	68%
Software Developers	1,564	27%	182	30%
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	1,500	13%	202	64%
Computer User Support Specialists	1,478	7%	138	42%
Machinists	1,399	8%	187	42%

<sup>1</sup> Lightcast Datarun 2023.2



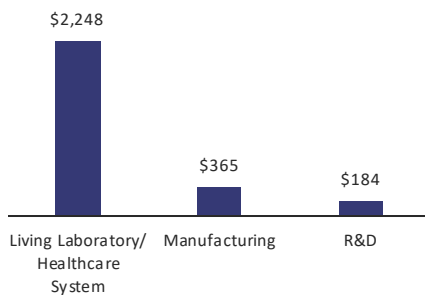
## Life Sciences & Biotechnology

The area Life Sciences and Biotechnology cluster is rooted in a history of research, development, and entrepreneurship. The work focuses on disease prevention and treatment, health and aging, veterinary medicine, and even plant sciences based mainly on fundamental biomedical research. This cluster comprises 1) pharmaceutical, biological product, and medical device manufacturers; 2) private research and development firms in life sciences, bio- and nanotechnology; and 3) a living laboratory for public and private research and education entities across the healthcare system; these include primarily hospitals and nursing and continuing care facilities that serve those in the region but also draw over fifty percent of their users from outside GOVA region 2. Today, the cluster surges forward within the Roanoke Innovation Corridor, exemplified by the Fralin Biomedical Research Institute (FBRI) at VTC, which generates about \$53 million annually in expenditures and has an active extramural grant portfolio of \$175 million to pursue innovations in brain, cardiovascular, and cancer research, and which employs about 500 Virginia Tech faculty, students, and staff. The cluster has drawn large businesses interests to the region, such as Johnson & Johnson, and has fostered as many as eight new life science startups since 2010. From this research and through partnerships, the region has built a private cluster employing over 27,000 individuals with average earnings of \$80,710 per job and contributing \$2.8 billion to GRP. Region 2 has a range of high-quality assets in place to support this innovative model of integrated life sciences and biotechnology activities.

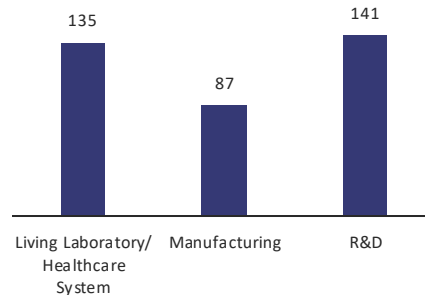
### Cluster and Subcluster Performance

Life Sciences & Biotechnology is the largest of the target clusters in terms of GRP (\$2.80B). There were a total of 363 payroll businesses with the vast majority (276) being found in Living Laboratories / Healthcare Systems and R&D.

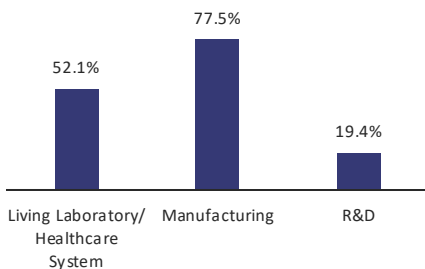
2022 GRP by Sub-Cluster (Millions of \$)



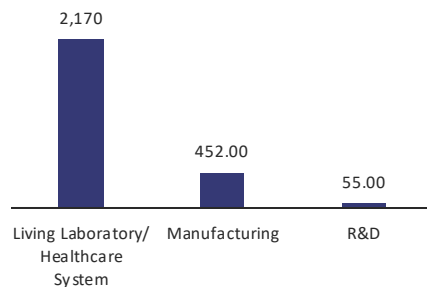
2022 Payroll Businesses



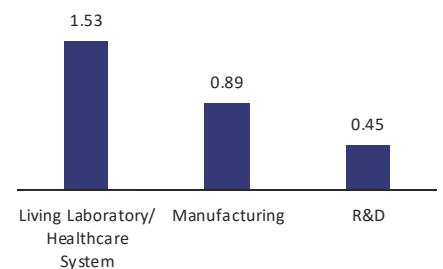
2022 % Exported Sales



2017-2028 Competitive Effect (Jobs)



2022 Employment Concentration



### Cluster and Subcluster Jobs

Subcluster	2017 Jobs	2022 Jobs	2028 Jobs	Job Change 2017-2022	Projected Change 2022-2028
Living Laboratory/ Healthcare System	23,365	23,619	26,010	1.1%	10.1%
Manufacturing	1,309	1,562	1,971	19.3%	26.2%
R&D	933	1,234	1,350	32.3%	9.4%





## Life Sciences & Biotechnology

### Top Ten In-Demand Occupations

Compared to other MSAs, most of these occupations pay \$1-\$4.50 less in hourly adjusted COL wages. This is particularly true for Industrial Engineers and Chemists. GOVA2 does pay higher adjusted COL wages for Biological and Medical Scientists.

SOC	Description	Jobs in Region (2022)	Jobs Change (22-28)	Avg. Annual Openings	2022 Turnover Rate	Avg. Earnings	Workers Over 55 (2022)	Typical Entry Level Education
49-9041	Industrial Machinery Mechanics	2,239	13.0%	304	35%	\$57,090	32.1%	HS diploma or equivalent
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	1,680	8.5%	256	64%	\$48,221	32.6%	HS diploma or equivalent
17-2112	Industrial Engineers	1,203	14.3%	122	26%	\$94,350	30.7%	Bachelor's
29-2018	Clinical Laboratory Technologists and Technicians	1,119	7.0%	119	36%	\$50,809	24.6%	Bachelor's
19-4021	Biological Technicians	469	8.3%	82	56%	\$48,232	16.2%	Bachelor's
51-9011	Chemical Equipment Operators and Tenders	267	12.1%	56	36%	\$56,195	23.2%	HS diploma or equivalent
17-3026	Industrial Engineering Technologists and Technicians	360	7.7%	55	44%	\$63,361	30.2%	Associate's
19-1029	Biological Scientists, All Other	283	-1.8%	39	36%	\$95,537	20.0%	Bachelor's
19-1042	Medical Scientists, Except Epidemiologists	213	24.3%	26	26%	\$99,232	19.3%	Graduate
19-2031	Chemists	170	13.9%	23	40%	\$79,546	26.4%	Bachelor's

### Needed Skill Sets

#### In-Demand Occupations without enough annual program completions

Industrial Machinery Mechanics, Chemical Equipment Operators and Tenders, Inspectors, Testers, Sorters, Samplers, and Weighers

Top Knowledge	Top Skills	Top Abilities
<ul style="list-style-type: none"> <li>Mathematics</li> <li>Chemistry</li> <li>English Language</li> <li>Engineering and Technology</li> <li>Mechanical</li> </ul>	<ul style="list-style-type: none"> <li>Critical Thinking</li> <li>Reading Comprehension</li> <li>Monitoring</li> <li>Science</li> <li>Writing</li> </ul>	<ul style="list-style-type: none"> <li>Oral Comprehension</li> <li>Oral Expression</li> <li>Written Comprehension</li> <li>Inductive Reasoning</li> <li>Problem Sensitivity</li> </ul>

#### Top Certificates or Credentials

- Nursing: Nurse Aid, LPN, RN
- LIMS and SAP software
- ASCP Certification
- CAD Software
- CDL and Forklift Certification



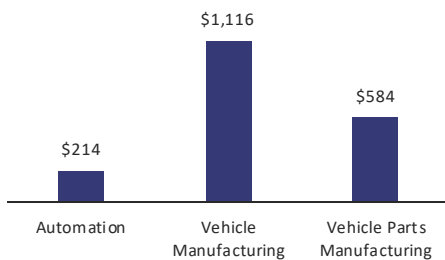
## Transportation & Autonomy

Today’s economy relies on rapid delivery of goods, as evidenced by strained supply chains during the COVID pandemic, which cost manufacturers between \$10,000 and \$100,000 per minute of unplanned production stoppage.<sup>1</sup> Truck freight demand grew 6.0% in 2020, fueled by the shift to E-commerce.<sup>2</sup> The World Economic Forum projects freight demand to triple by 2050.<sup>3</sup> GOVA Region 2 is situated to address this growing demand, boasting one of the largest collections of truck manufacturing plants nationally (Mack, Volvo, and Morgan-Olsen) with a collection of regional parts manufacturers and growing expertise in automation and alternative fuels/energy. Volvo, one of the three largest truck manufacturers, has its flagship facility here, where they manufacture full-size electric trucks. Daimler, another Big 3 truck manufacturer, purchased the region’s largest autonomy firm, TORC Robotics, to spur development of autonomous trucks. This region hosts the only commercial drone delivery service in the U.S. by Wing, supplier firms like Eldor Powertrains, and innovative startups like TROVA, specializing in truck battery conversion.

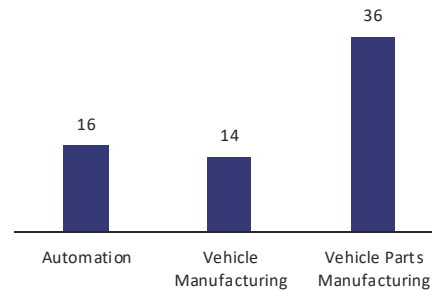
### Cluster and Subcluster Performance

Transportation & Autonomy is the 2<sup>nd</sup> largest of the target clusters in terms of GRP (\$1.91B). There were a total of 65 payroll businesses with the majority (36) being found in Vehicle Parts Manufacturing.

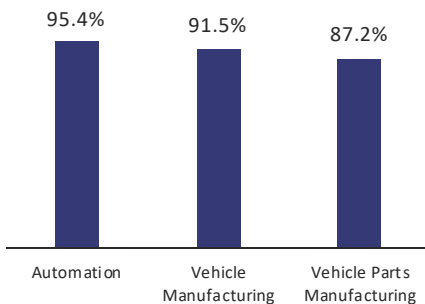
2022 GRP by Sub-Cluster (Millions of \$)



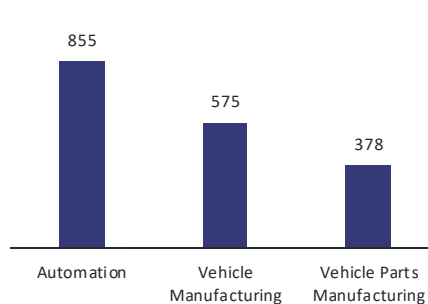
2022 Payroll Businesses



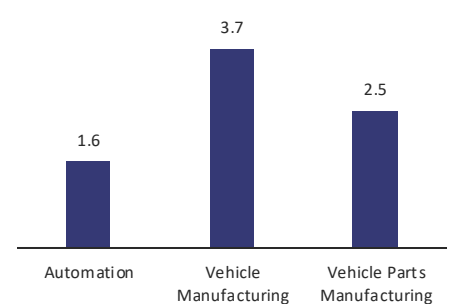
2022 % Exported Sales



2017-2028 Competitive Effect (Jobs)



2022 Employment Concentration



### Cluster and Subcluster Jobs

Subcluster	2017 Jobs	2022 Jobs	2028 Jobs	Job Change 2017-2022	Projected Change 2022-2028
Automation	947	1,488	1,803	57.2%	21.2%
Vehicle Manufacturing	2,981	4,228	4,734	41.8%	12.0%
Vehicle Parts Manufacturing	4,058	4,732	4,877	16.6%	3.1%

1 Thanou, E & A. Matopoulos (2021). "Improving efficiency of material flows in an automotive assembly plant: A case study." *CIRP Journal of Manufacturing Science and Technology* 35 (2021) 959-967.

2 FTR Transportation Intelligence (September 2021). "C-Suite Synopsis for September 2021." *State of Freight Insights*. Retrieved from: <https://today.ftrintel.com>.

3 Thanou, E & A. Matopoulos (2021). "Improving efficiency of material flows in an automotive assembly plant: A case study." *CIRP Journal of Manufacturing Science and Technology* 35 (2021) 959-967.



## Transportation & Autonomy

### Top Ten In-Demand Occupations

Engineering, Buyers and Purchasing Agents, and Managers are paid \$5-\$11 less in hourly adjusted COL wages in GOVA2 compared to other MSAs like Raleigh NC. Middle-skilled workers tend to be paid about \$1 less in adjusted hourly wages.

SOC	Description	Jobs in Region (2022)	22-'28 Jobs Change	Avg. Annual Openings	2022 Turnover Rate	Avg. Earnings	'22 Workers Over 55	Typical Entry Level Education
51-4121	Welders, Cutters, Solderers, and Brazers	1,518	11.3%	233	44%	\$49,439	21.8%	HS diploma or equivalent
53-1047	First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	1,456	7.7%	221	68%	\$54,541	27.5%	HS diploma or equivalent
13-1111	Management Analysts	1,466	12.4%	182	33%	\$115,674	38.2%	Bachelor's
47-2152	Plumbers, Pipefitters, and Steamfitters	1,152	-0.3%	153	49%	\$50,571	23.3%	HS diploma or equivalent
13-1028	Buyers and Purchasing Agents	1,149	1.4%	139	46%	\$63,753	35.3%	Bachelor's
17-2112	Industrial Engineers	1,203	14.3%	122	26%	\$94,349	30.7%	Bachelor's
43-5061	Production, Planning, and Expediting Clerks	735	12.5%	106	52%	\$51,768	28.7%	HS diploma or equivalent
17-2141	Mechanical Engineers	635	11.3%	59	24%	\$82,003	26.7%	Bachelor's
11-3051	Industrial Production Managers	482	17.2%	54	25%	\$115,985	32.6%	Bachelor's
13-1081	Logisticians	332	23.4%	47	34%	\$72,330	21.6%	Bachelor's

### Needed Skill Sets

In-Demand Occupations without enough annual program completions			Top Certificates or Credentials
Logistician, Production/Planning/Expediting Clerk, Machinery Maintenance Worker, Millwright, Foundry Mold and Coremaker, Tool and Die Maker, Welder, First-Line Supervisors of Transportation and Material Moving Workers			
Top Knowledge	Top Skills	Top Abilities	<ul style="list-style-type: none"> <li>•AutoCAD</li> <li>•SAP Manufacturing</li> <li>•Program Language (Java, C+, SQL)</li> <li>•CDL License</li> <li>•Certified Welding Inspector</li> <li>•Fork Lift Cert.</li> </ul>
<ul style="list-style-type: none"> <li>•Math</li> <li>•Design</li> <li>•Engineering &amp; Technology</li> <li>•Mechanical</li> <li>•Admin &amp; Management</li> </ul>	<ul style="list-style-type: none"> <li>•Critical Thinking</li> <li>•Reading Comprehension</li> <li>•Active Listening</li> <li>•Monitoring</li> <li>•Judgement &amp; Decision Making</li> </ul>	<ul style="list-style-type: none"> <li>•Oral Comprehension</li> <li>•Oral Expression</li> <li>•Deductive Reasoning</li> <li>•Written Comprehension</li> <li>•Near Vision</li> </ul>	



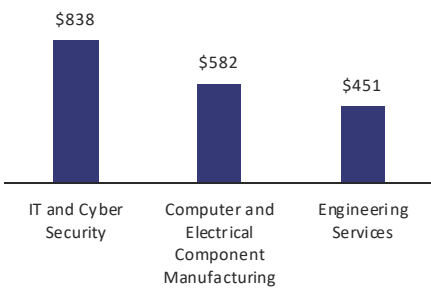
## IT, Engineering, & Emerging Tech

GOVA Region 2’s IT, Engineering, and Emerging Tech cluster has strengths in IT services, manufacturing of computer and electrical components, and professional engineering services. These industries support the maintenance and development of emerging software and hardware technologies from cybersecurity and blockchain to artificial intelligences, digital, and component systems. Not only do these businesses and related occupations develop and grow this cluster, but they also support the growth of other target clusters and industries across Region 2. Companies include 1901 Group, Apex Systems, BAE Systems, Biznet Technologies, Block.one, Corning, GE Digital, Harris Corporation, Hurt & Proffitt, Innovation Wireless Tech, KlariVis, MicroHarmonics, MODEA, MOVA Technologies, New River Computing, and TRC.

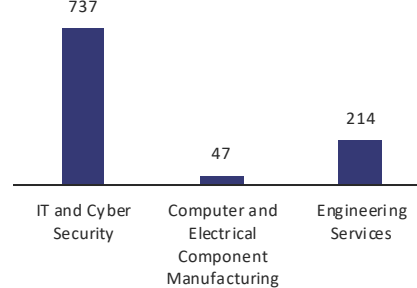
### Cluster and Subcluster Performance

IT and Emerging Tech is the 3rd largest of the target clusters in terms of GRP (\$1.87B). There were a total of 998 payroll businesses with the vast majority (737) being found in IT and Cyber Security.

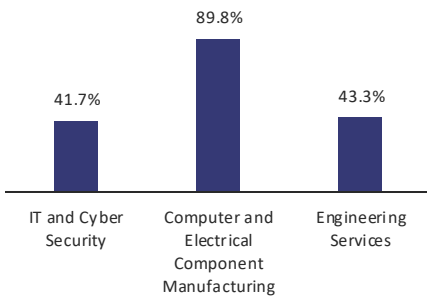
2022 GRP by Sub-Cluster (Millions of \$)



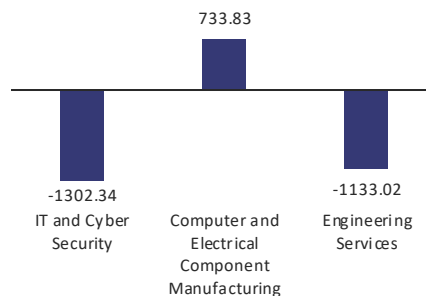
2022 Payroll Businesses



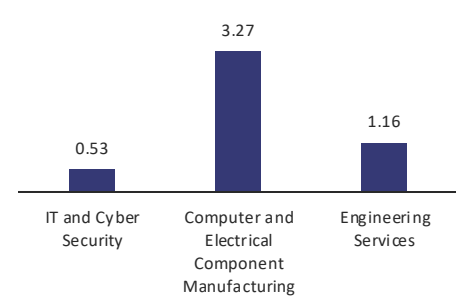
2022 % Exported Sales



2017-2028 Competitive Effect (Jobs)



2022 Employment Concentration



### Cluster and Subcluster Jobs

Sub-Cluster	2017 Jobs	2022 Jobs	2028 Jobs	2017-2022 Change	2022-'28 Projected Change
IT and Cyber Security	5,334	5,604	6,037	5.1%	7.7%
Computer and Electrical Component Manufacturing	3,996	4,579	5,099	14.6%	11.3%
Engineering Services	3,469	3,166	3,015	-8.7%	-4.7%



## IT, Engineering, & Emerging Tech

### Top Ten In-Demand Occupations

Other than Computer User Support Specialist, most listed IT positions are paid \$3-\$4.50 less in adjusted COL hourly wages. Systems Managers and Mechanical Engineers are paid \$7-\$11 less in adjusted hourly wages compared to other MSAs like Raleigh NC, Richmond VA, and Charlottesville VA.

SOC	Description	Jobs in Region (2022)	Jobs Change (22-28)	Avg. Annual Openings	2022 Turnover Rate	Avg. Earnings	Workers Over 55 (2022)	Typical Entry Level Education
15-1252	Software Developers	1,935	17.6%	217	33%	\$108,626	16.0%	Bachelor's
51-4041	Machinists	1,353	10.7%	193	43%	\$53,667	33.2%	HS diploma or equivalent
15-1232	Computer User Support Specialists	1,463	8.9%	149	42%	\$57,113	17.7%	Some college, no degree
17-2112	Industrial Engineers	1,203	14.3%	122	26%	\$94,349	30.7%	Bachelor's
15-1211	Computer Systems Analysts	1,023	7.3%	106	34%	\$93,587	22.3%	Bachelor's
15-1244	Network and Computer Systems Administrators	762	4.6%	65	35%	\$86,423	17.9%	Bachelor's
11-3021	Computer and Information Systems Managers	569	21.0%	65	31%	\$138,297	23.7%	Bachelor's
17-3023	Electrical and Electronic Engineering Technologists and Technicians	401	5.6%	60	39%	\$62,167	34.9%	Associate's
17-2141	Mechanical Engineers	635	11.3%	59	24%	\$82,003	26.7%	Bachelor's
17-2051	Civil Engineers	526	7.7%	51	24%	\$88,969	31.7%	Bachelor's

### Needed Skill Sets

In-Demand Occupations without enough annual program completions
Machinist

Top Knowledge	Top Skills	Top Abilities
<ul style="list-style-type: none"> <li>Computers &amp; Electronics</li> <li>Engineering &amp; Technology</li> <li>Math</li> <li>Design</li> <li>Customer and Personal Service</li> </ul>	<ul style="list-style-type: none"> <li>Reading Comprehension Critical Thinking</li> <li>Active Listening</li> <li>Complex Problem Solving</li> <li>Math</li> </ul>	<ul style="list-style-type: none"> <li>Oral Comprehension</li> <li>Oral Expression</li> <li>Written Comprehension</li> <li>Deductive Reasoning</li> <li>Inductive Reasoning, Near Vision, Written Expression</li> </ul>

Top Certificates or Credentials
<ul style="list-style-type: none"> <li>AutoCAD</li> <li>CompTIA Cert.</li> <li>Programming Languages (C+, Java, SQ, Python)</li> <li>Cisco Network Professional Cert.</li> <li>Project Management Professional (PMP) Certification</li> </ul>



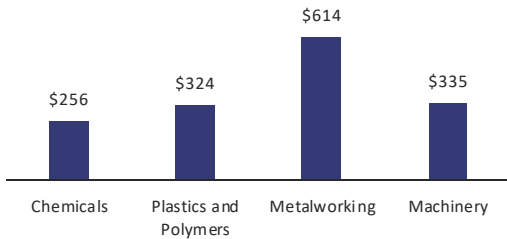
## Materials and Machinery Manufacturing

Three important trends have highlighted the need for advanced materials and machinery manufacturing in the United States: 1) the decades-long calls for reshoring manufacturing through more automation, 2) the COVID-19 pandemic’s exposure of the fragility of the nation’s manufacturing supply chain, and 3) increasing calls for lighter, sustainable, and eco-friendly materials. GOVA Region 2 has a long history of producing materials, parts and machinery for their downstream manufacturing partners both in and outside the region. From creating new polymers that offer lightweight materials that reduce fuel costs in transportation, food packaging that preserves freshness and reduces waste, and membranes that reduce energy consumption in water and air purification, to applying 3D printing technologies in machine shop work to save on time and material costs, advancing this industry poses a distinct opportunity for significant regional growth and industry leadership. Subclusters of regional significance include: 1) Chemical, 2) Plastics and Polymers, 3) Metalworking, and 4) Machinery Manufacturing. Examples of cluster companies are AkzoNobel, Bentech, Belvac Production Machinery, Celanese, Cooper Steel, Framatome, Hollingsworth & Vose, MELD, P1 Technologies, Precision Steel Manufacturing Corp, TekniPlex, Tessy Plastics, Thomas Industrial Fabrication, and Wolverine Industrial Materials.

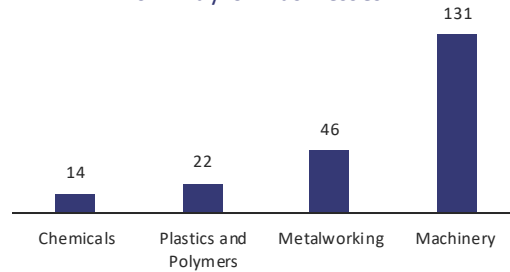
### Cluster and Subcluster Performance

Materials and Machinery Manufacturing is the smallest of the target clusters in terms of GRP (\$1.52B). There were a total of 212 payroll businesses with the vast majority (131) being found in Machinery Manufacturing.

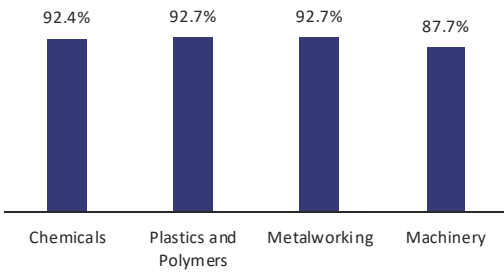
2022 GRP by Sub-Cluster (Millions of \$)



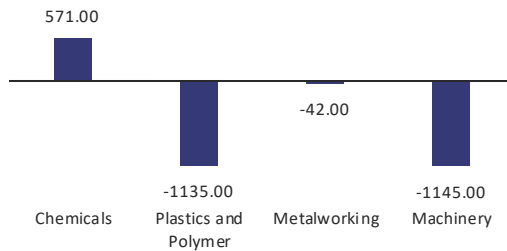
2022 Payroll Businesses



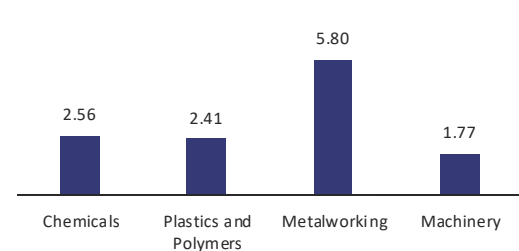
2022 % Exported Sales



2017-2028 Competitive Effect (Jobs)



2022 Employment Concentration



### Subcluster Jobs

Sub-Cluster	2017 Jobs	2022 Jobs	2028 Jobs	Job Change 2017-2022	Projected Change 2022-2028
Chemicals	309	726	959	135.4%	32.0%
Plastics and Polymers	3,483	2,633	2,758	-24.4%	4.8%
Metalworking	3,617	3,690	3,905	2.0%	5.8%
Machinery Manufacturing	3,624	2,781	3,036	-23.3%	9.2%



# Materials and Machinery Manufacturing

## Top Ten In-Demand Occupations

Many of the listed occupations are paid better or on par compared to other MSAs. There is a \$1-\$2/hr difference among supervisors, welders, mechanics, and clerks, where GOVA2 workers are paid relatively less. Buying and Purchasing Agents are paid \$4.50/hr less in adjusted COL wages.

SOC	Description	Jobs in Region (2022)	22-'28 Jobs Change	Avg. Annual Openings	2022 Turnover Rate	Avg. Earnings	'22 Workers Over 55	Typical Entry Level Education
49-9071	Maintenance and Repair Workers, General	3,707	10%	443	49%	\$44,456	35%	HS diploma or equivalent
51-1011	First-Line Supervisors of Production and Operating Workers	2,374	12%	307	43%	\$66,801	30%	HS diploma or equivalent
49-9041	Industrial Machinery Mechanics	2,239	13%	260	35%	\$57,090	32%	HS diploma or equivalent
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	1,680	8%	243	64%	\$48,221	33%	HS diploma or equivalent
51-4121	Welders, Cutters, Solderers, and Brazers	1,518	11%	207	44%	\$49,439	22%	HS diploma or equivalent
51-4041	Machinists	1,353	11%	178	43%	\$53,667	33%	HS diploma or equivalent
51-9111	Packaging and Filling Machine Operators and Tenders	1,020	10%	143	69%	\$41,394	22%	HS diploma or equivalent
13-1028	Buyers and Purchasing Agents	1,149	1%	123	46%	\$63,754	35%	Bachelor's degree
43-5061	Production, Planning, and Expediting Clerks	735	13%	103	52%	\$51,769	29%	HS diploma or equivalent
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	578	8%	71	46%	\$45,349	21%	HS diploma or equivalent

## Needed Skill Sets

In-Demand Occupations without enough annual program completions
Maintenance and Repair Worker, First-Line Supervisors of Production and Operating Workers, Industrial Machinery Mechanic, Welder, Machinist, Production/Planning/Expediting Clerk, Tool and Die Maker

Training and Credentials
<ul style="list-style-type: none"> <li>Welding, Certified Welding Inspector</li> <li>HVAC</li> <li>Construction Trades</li> <li>Industrial Technology/Technician programs</li> <li>CDL License</li> <li>AutoCAD</li> <li>SAP Manufacturing</li> <li>Program Language (Java, C+, SQL)</li> </ul>

Top Knowledge	Top Skills	Top Abilities
<ul style="list-style-type: none"> <li>Math</li> <li>Design</li> <li>Engineering &amp; Technology</li> <li>Mechanical</li> <li>Admin &amp; Management</li> </ul>	<ul style="list-style-type: none"> <li>Critical Thinking</li> <li>Reading Comprehension</li> <li>Active Listening</li> <li>Monitoring</li> <li>Judgement &amp; Decision Making</li> </ul>	<ul style="list-style-type: none"> <li>Oral Comprehension</li> <li>Oral Expression</li> <li>Deductive Reasoning</li> <li>Written Comprehension</li> <li>Near Vision</li> </ul>

## Target Cluster Strategies



### Life Sciences & Biotechnology



<p><b>GOALS</b></p>	<ul style="list-style-type: none"> <li>● Talent development, retention and attraction</li> <li>● Encourage entrepreneurship and business development</li> <li>● Scale up cluster through advanced technologies, firm growth, and ecosystem development</li> <li>○ Invest in site and infrastructure development</li> </ul>	
<p><b>STRATEGIES</b> (soon to be prioritized)</p>	<ul style="list-style-type: none"> <li>● Promote <b><u>better regional and national marketing</u></b> for the region’s life science and biotechnology cluster identity</li> <li>● Catalyze <b><u>technology adoption and development</u></b> among cluster businesses (e.g. software, diagnostic software and devices, biopharmaceuticals and therapies).</li> <li>● Develop <b><u>clear career pathways from entry through senior level employment</u></b> to illustrate a lifetime of career opportunities in the region’s life sciences cluster.</li> <li>● Implement <b><u>talent retention and attraction programs</u></b>, particularly for scientists and middle management professions, centered on local universities and regions that may currently draw talent from this region (e.g. North Carolina)</li> <li>● Increase <b><u>technician and non-degree training</u></b></li> <li>● Identify, implement, and support innovative strategies for <b><u>worker retention</u></b></li> <li>● Develop an <b><u>Entrepreneur-In-Residence program</u></b> for the life sciences to grow and attract knowledge and expertise in the region.</li> <li>● Building and attract <b><u>regulatory expertise</u></b> in the life sciences (e.g. FDA expertise)</li> <li>○ Identify and implement programming that reduces the cost of entry for beginning life science businesses; for example, mapping existing unused and underused lab spaces that could serve as <b><u>subsidized labs with flexible configurations</u></b>.</li> <li>● To increase talent participation in the life science and biotechnology cluster, develop <b><u>accessible and affordable childcare programming</u></b>.</li> </ul>	
<p><b>COMMON OUTCOME AND IMPACT METRICS</b></p>	<ul style="list-style-type: none"> <li>● # of jobs created/filled</li> <li>● # of businesses served</li> <li>● # of students trained</li> <li>● # of new internships created</li> <li>● # of credentials awarded</li> <li>● # of new apprenticeships created</li> <li>● # of upskilled employees</li> <li>● # of students in dual enrollment programs</li> <li>● # of new programs/credentials implemented</li> <li>● # of new businesses created</li> <li>● # of mentors engaged</li> <li>● # of entrepreneurs engaged</li> <li>● # of existing businesses expanded</li> <li>● # of jobs created/filled</li> <li>● # of businesses served</li> <li>● # of new internships created</li> <li>● # of existing jobs retained</li> </ul>	<ul style="list-style-type: none"> <li>○ # of acres advanced to higher tier per Virginia Business Ready Sites Program</li> <li>○ # of acres impacted/developed</li> <li>○ # of linear feet of water infrastructure</li> <li>○ # of linear feet of gas infrastructure</li> <li>○ # of linear feet of sewer infrastructure</li> <li>○ # of prospects (active company visits)</li> <li>○ # of miles of middle mile broadband completed</li> <li>○ # of businesses attracted</li> <li>● # of businesses retained</li> <li>● Revenues increased</li> <li>● Total capital raised</li> <li>● # of existing businesses expanded</li> <li>● # of jobs created/filled</li> <li>● # of businesses served</li> <li>● # of new internships created</li> <li>● # of jobs retained</li> <li>● # of businesses attracted</li> </ul>



## Target Cluster Strategies



### Life Sciences & Biotechnology

<p><b>PARTNERS FOR COLLABORATION</b></p>	<p><b>Life Science &amp; Biotechnology Programs</b></p> <ul style="list-style-type: none"> <li>• Blue Ridge Partnership for Health Science Careers (BRPHSC)</li> <li>• Carilion Clinic</li> <li>• Central Virginia Community College Health Science programs</li> <li>• Fralin Biomedical Research Institute at Virginia Tech Carilion</li> <li>• The Central Virginia Community College CTE Academy</li> <li>• Virginia Western Community College Health Science programs</li> </ul> <p><b>Economic and Workforce Development Organizations:</b></p> <ul style="list-style-type: none"> <li>• Lynchburg Regional Business Alliance</li> <li>• Onward New River Valley</li> <li>• Regional Entrepreneurship Initiative</li> <li>• Roanoke Regional Partnership - Recovery Project</li> <li>• Roanoke Regional Small Business Development Center</li> <li>• Roanoke-Blacksburg Technology Council (RBTC)</li> <li>• The Advancement Foundation (TAF)</li> <li>• VA Small Business Development Center</li> <li>• Verge Alliance</li> <li>• Veteran Support Network</li> <li>• Virginia Economic Development Partnership</li> <li>• Virginia Tech Corporate Research Center</li> <li>• VTOP, Alliance, and other support organizations</li> <li>• Workforce boards</li> </ul>
<p><b>GOVA REGION 2 PROJECTS</b></p>	<ul style="list-style-type: none"> <li>• Amherst LYH Region Site Readiness</li> <li>• Building a Regional Health Sciences Talent Pipeline</li> <li>• Capital Ecosystem Development</li> <li>• Developing a Destination for Talent</li> <li>• Flexible Laboratory Space Assessment</li> <li>• GO Virginia Region 2 Talent Collaborative</li> <li>• Lynchburg Site Readiness</li> <li>• Project Eagle+</li> <li>• Regional Accelerator and Mentoring Program (RAMP)</li> <li>• Strengthening Entrepreneur’s Impact</li> <li>• Talent Pathways Initiative</li> <li>• Wood Haven Road Water and Sewer Infrastructure Enhancement</li> <li>• Workforce Training and Regional Capacity for Rapid High Throughput COVID-19 Testing</li> </ul>

## Target Cluster Strategies



### Transportation & Autonomy



<p><b>GOALS</b></p>	<ul style="list-style-type: none"> <li>● Talent development, retention and attraction</li> <li>● Encourage entrepreneurship and business development</li> <li>● Scale up cluster through advanced technologies, firm growth, and ecosystem development</li> <li>○ Invest in site and infrastructure development</li> </ul>	
<p><b>STRATEGIES</b> (soon to be prioritized)</p>	<ul style="list-style-type: none"> <li>● Create a <b>corridor strategy</b> for cluster development</li> <li>● Strengthen and <b>diversify the cluster supply chain</b> to mitigate business cycle effects</li> <li>● Catalyze <b>technology commercialization and adoption</b> among cluster businesses (e.g. automation and electrification).</li> <li>○ Develop <b>testing facilities</b> beyond the VTTI Smart Road and other infrastructure to support technology and business development</li> <li>● Develop <b>clear career pathways from entry through senior level employment</b> to illustrate a lifetime of career opportunities in the region.</li> <li>● Implement <b>talent retention and attraction programs</b>, particularly for engineering and middle management professions, centered on local universities and regions that may currently draw talent from this region (e.g. North Carolina)</li> <li>● Increase <b>technical, engineering and industry-driven training</b> among in-demand occupations</li> <li>● Identify, implement, and support innovative strategies for <b>worker retention</b></li> <li>● Prioritize <b>upskilling programs in electrification and automation</b></li> <li>● <b>Attract additional heavy vehicle manufacturing</b> to the region.</li> </ul>	
<p><b>OUTCOME AND IMPACT METRICS</b></p>	<ul style="list-style-type: none"> <li>● # of jobs created/filled</li> <li>● # of businesses served</li> <li>● # of students trained</li> <li>● # of new internships created</li> <li>● # of credentials awarded</li> <li>● # of new apprenticeships created</li> <li>● # of upskilled employees</li> <li>● # of students in dual enrollment programs</li> <li>● # of new programs/credentials implemented</li> <li>● # of new businesses created</li> <li>● # of mentors engaged</li> <li>● # of entrepreneurs engaged</li> <li>● # of existing businesses expanded</li> <li>● # of jobs created/filled</li> <li>● # of businesses served</li> <li>● # of new internships created</li> <li>● # of existing jobs retained</li> </ul>	<ul style="list-style-type: none"> <li>○ # of acres advanced to higher tier per Virginia Business Ready Sites Program</li> <li>○ # of acres impacted/developed</li> <li>○ # of linear feet of water infrastructure</li> <li>○ # of linear feet of gas infrastructure</li> <li>○ # of linear feet of sewer infrastructure</li> <li>○ # of prospects (active company visits)</li> <li>○ # of miles of middle mile broadband completed</li> <li>○ # of businesses attracted</li> <li>● # of businesses retained</li> <li>● Revenues increased</li> <li>● Total capital raised</li> <li>● # of existing businesses expanded</li> <li>● # of jobs created/filled</li> <li>● # of businesses served</li> <li>● # of new internships created</li> <li>● # of jobs retained</li> <li>● # of businesses attracted</li> </ul>

## Target Cluster Strategies



### Transportation & Autonomy

#### PARTNERS FOR COLLABORATION

**Transportation & Autonomy Programs:**

- Advanced Vehicle Dynamics Lab
- Center for Automotive Fuel Cell Systems
- Center for Energy Research and Education (CERE) Industry Labs
- MidAtlantic Aviation Partnership (MAAP)
- Mountain Gateway Community College
- Virginia Smart Road
- Virginia Tech Transportation Institute (VTTI)

**Economic and Workforce Development Organizations:**

- Lynchburg Regional Business Alliance
- Onward New River Valley
- Regional Entrepreneurship Initiative
- Roanoke Regional Partnership - Recovery Project
- Roanoke Regional Small Business Development Center
- Roanoke-Blacksburg Technology Council (RBTC)
- The Advancement Foundation (TAF)
- VA Small Business Development Center
- Verge Alliance
- Veteran Support Network
- Virginia Business Ready Sites Program (VBRSP)
- Virginia Economic Development Partnership
- Virginia Tech Corporate Research Center
- V-TOP, Alliance, and other support organizations
- Workforce boards

#### GOVA REGION 2 PROJECTS

- Amherst LYH Region Site Readiness
- Capital Ecosystem Development
- Developing a Destination for Talent
- Enhancing the Region through New Technology for Unmanned Systems
- GO Virginia Region 2 Talent Collaborative
- Helping Local Employers Prepare the Existing and Future Workforce for Industry 4.0
- Lynchburg Site Readiness
- Regional Accelerator and Mentoring Program (RAMP)
- Strengthening Entrepreneur’s Impact
- Talent Pathways Initiative
- The Central Virginia Community College CTE Academy
- Wood Haven Road Water and Sewer Infrastructure Enhancement

## Target Cluster Strategies



IT, Engineering, & Emerging Tech



<p><b>GOALS</b></p>	<ul style="list-style-type: none"> <li>● Talent development, retention and attraction</li> <li>● Encourage entrepreneurship and business development</li> <li>● Scale up cluster through advanced technologies, firm growth, and ecosystem development</li> <li>○ Invest in site and infrastructure development</li> </ul>	
<p><b>STRATEGIES (soon to be prioritized)</b></p>	<ul style="list-style-type: none"> <li>● Catalyze <b>technology adoption and development</b> among cluster businesses (e.g. AI, machine learning, augmented and virtual realities, cobots, data sciences and analytics).</li> <li>● Streamline methods of <b>commercializing university intellectual property</b>.</li> <li>● Identify <b>cluster needs among SBIR Phase I and II recipients</b> in the region.</li> <li>○ Increase amount or accessibility to <b>quasi-industrial, flexible spaces</b> for small cluster businesses</li> <li>● Develop <b>clear career pathways from entry through senior level employment</b> to illustrate a lifetime of career opportunities in the region.</li> <li>● Identify and implement strategies for <b>attracting and retaining remote workers</b> in the region.</li> <li>● Implement <b>talent retention and attraction programs</b> centered on local universities and regions that may currently draw talent from this region (e.g. North Carolina).</li> <li>● Have higher education institutions prioritize or <b>highlight regional employers in their career fairs</b> and other employment events.</li> <li>● Increase <b>technical, engineering and industry-driven training</b> among in-demand occupations.</li> <li>● Identify, implement, and support innovative strategies for <b>worker retention</b>.</li> </ul>	
<p><b>OUTCOME AND IMPACT METRICS</b></p>	<ul style="list-style-type: none"> <li>● # of jobs created/filled</li> <li>● # of businesses served</li> <li>● # of students trained</li> <li>● # of new internships created</li> <li>● # of credentials awarded</li> <li>● # of new apprenticeships created</li> <li>● # of upskilled employees</li> <li>● # of students in dual enrollment programs</li> <li>● # of new programs/credentials implemented</li> </ul>	<ul style="list-style-type: none"> <li>○ # of acres advanced to higher tier per Virginia Business Ready Sites Program</li> <li>○ # of acres impacted/developed</li> <li>○ # of linear feet of water infrastructure</li> <li>○ # of linear feet of gas infrastructure</li> <li>○ # of linear feet of sewer infrastructure</li> <li>○ # of prospects (active company visits)</li> <li>○ # of miles of middle mile broadband completed</li> <li>○ # of businesses attracted</li> <li>● # of businesses retained</li> <li>● Revenues increased</li> <li>● Total capital raised</li> <li>● # of existing businesses expanded</li> <li>● # of jobs created/filled</li> <li>● # of businesses served</li> <li>● # of new internships created</li> <li>● # of jobs retained</li> <li>● # of businesses attracted</li> </ul>
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## Target Cluster Strategies



### IT, Engineering, & Emerging Tech

#### PARTNERS FOR COLLABORATION

#### IT, Engineering, & Emerging Tech Programs:

- Additive Materials Manufacturing Partnership Labs (AMPL)
- Center for Energy Research and Education (CERE) Industry Labs
- Center for Intelligent Material Systems and Structures (CIMSS)
- Center for Packaging and Unit Load Design (CPULD)
- Central Virginia Community College
- Exelaraion
- GMU Mason Enterprise
- Liberty University
- VA Small Business Development Center
- VT Foundry Institute for Research and Education (VT FIRE)
- XLR8 STEM Academy

#### Economic and Workforce Development Organizations:

- Lynchburg Regional Business Alliance
- Onward New River Valley
- Regional Entrepreneurship Initiative
- Roanoke Regional Partnership - Recovery Project
- Roanoke Regional Small Business Development Center
- Roanoke-Blacksburg Technology Council (RBTC)
- The Advancement Foundation (TAF)
- Verge Alliance
- Veteran Support Network
- Virginia Business Ready Sites Program (VBRSP)
- Virginia Economic Development Partnership
- Virginia Tech Corporate Research Center
- V-TOP, Alliance, and other support organizations
- Workforce boards

#### GOVA REGION 2 PROJECTS

- Amherst LYH Region Site Readiness
- Capital Ecosystem Development
- Central Virginia Training Center
- Developing a Destination for Talent
- Experiential Learning in Tech Employment (ELITE)
- GO Virginia Region 2 Talent Collaborative
- Helping Local Employers Prepare the Existing and Future Workforce for Industry 4.0
- Lynchburg Site Readiness
- Regional Accelerator and Mentoring Program (RAMP)
- Strengthening Entrepreneur's Impact
- The Central Virginia Community College CTE Academy
- Wood Haven Road Water and Sewer Infrastructure Enhancement
- Workforce and Entrepreneurship Initiatives in a Regional Makerspace

## Target Cluster Strategies



### Materials and Machinery Manufacturing



<p><b>GOALS</b></p>	<ul style="list-style-type: none"> <li>● Talent development, retention and attraction</li> <li>● Encourage entrepreneurship and business development</li> <li>● Scale up cluster through advanced technologies, firm growth, and ecosystem development</li> <li>○ Invest in site and infrastructure development</li> </ul>	
<p><b>STRATEGIES (soon to be prioritized)</b></p>	<ul style="list-style-type: none"> <li>● Develop and market a <b><u>cluster identity</u></b></li> <li>● Strengthen and <b><u>diversify the cluster supply chain</u></b> to mitigate business cycle effects</li> <li>● Catalyze <b><u>technology adoption</u></b> among cluster businesses (e.g. innovative materials, additive manufacturing technologies, and other green and automation technologies).</li> <li>● Develop <b><u>clear career pathways from entry through senior level employment</u></b> to illustrate a lifetime of career opportunities in the region.</li> <li>● Implement <b><u>talent retention and attraction programs</u></b>, particularly for engineering and middle management professions, centered on local universities and regions that may currently draw talent from this region (e.g. North Carolina)</li> <li>● Increase <b><u>technical, engineering and industry-driven training</u></b> among in-demand occupations</li> <li>● Identify, implement, and support innovative strategies for <b><u>worker retention</u></b></li> <li>● To increase talent participation in the manufacturing, develop <b><u>accessible and affordable childcare programming</u></b>.</li> </ul>	
<p><b>OUTCOME AND IMPACT METRICS</b></p>	<ul style="list-style-type: none"> <li>● # of jobs created/filled</li> <li>● # of businesses served</li> <li>● # of students trained</li> <li>● # of new internships created</li> <li>● # of credentials awarded</li> <li>● # of new apprenticeships created</li> <li>● # of upskilled employees</li> <li>● # of students in dual enrollment programs</li> <li>● # of new programs/credentials implemented</li> <li>● # of new businesses created</li> <li>● # of mentors engaged</li> <li>● # of entrepreneurs engaged</li> <li>● # of existing businesses expanded</li> <li>● # of jobs created/filled</li> <li>● # of businesses served</li> <li>● # of new internships created</li> <li>● # of existing jobs retained</li> </ul>	<ul style="list-style-type: none"> <li>○ # of acres advanced to higher tier per Virginia Business Ready Sites Program</li> <li>○ # of acres impacted/developed</li> <li>○ # of linear feet of water infrastructure</li> <li>○ # of linear feet of gas infrastructure</li> <li>○ # of linear feet of sewer infrastructure</li> <li>○ # of prospects (active company visits)</li> <li>○ # of miles of middle mile broadband completed</li> <li>○ # of businesses attracted</li> <li>● # of businesses retained</li> <li>● Revenues increased</li> <li>● Total capital raised</li> <li>● # of existing businesses expanded</li> <li>● # of jobs created/filled</li> <li>● # of businesses served</li> <li>● # of new internships created</li> <li>● # of jobs retained</li> <li>● # of businesses attracted</li> </ul>

## Target Cluster Strategies



### Materials and Machinery Manufacturing

**PARTNERS FOR  
COLLABORATION**

**Materials and Machinery Manufacturing:**

- Additive Materials Manufacturing Partnership Labs
- Center for Energy Research and Education (CERE) Industry Labs
- Center for Intelligent Material Systems and Structures (CIMSS)
- Center for Packaging and Unit Load Design (CPULD)
- Kroehling Advanced Materials Foundry
- Liberty University
- The Central Virginia Community College CTE Academy
- VT Foundry Institute for Research and Education (VT FIRE)

**Economic and Workforce Development Organizations:**

- GO Virginia Region 2 Talent Collaborative
- Lynchburg Regional Business Alliance
- Onward New River Valley
- Regional Entrepreneurship Initiative
- Roanoke Regional Partnership - Recovery Project
- Roanoke Regional Small Business Development Center
- Roanoke-Blacksburg Technology Council (RBTC)
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- Virginia Tech Corporate Research Center
- VTOP, Alliance, and other support organizations
- Workforce boards

**GOVA REGION  
2 PROJECTS**

- Amherst LYH Region Site Readiness
- Capital Ecosystem Development
- Central Virginia Training Center
- Developing a Destination for Talent
- Helping Local Employers Prepare the Existing and Future Workforce for Industry 4.0
- Lynchburg Site Readiness
- Regional Accelerator and Mentoring Program (RAMP)
- Strengthening Entrepreneur’s Impact
- Wood Haven Road Water and Sewer Infrastructure Enhancement
- Workforce and Entrepreneurship Initiatives in a Regional Makerspace

## PROJECT DEVELOPMENT

- Please discuss how this 2023 Growth and Diversification Plan Review will impact project development. Please discuss current projects and how they relate to the Review.

**Every Region 2 project recommended by the Region 2 Council and approved by the GO Virginia state board should be consistent with the strategies and goals outlined by the Region 2 Growth and Diversification Plan.** Creating an easily understandable guide is a priority with the 2023 Growth and Diversification Plan Review, for both GO Virginia applicants to design and submit fundable projects and for the Region 2 Council to assess projects. This plan review centers the four priority industry clusters in Region 2 and emphasizes the current GO Virginia projects and future opportunities through the strategies of talent development and attraction, collaborative development of sites and buildings, entrepreneurship and business development, and industry cluster scale-up.

### Current GO Virginia Projects

#### Current projects and how they relate to the review

### Opportunities for new TPI Planning Funding

In September 2023, Region 2 was awarded a TPI planning grant to support a 12-month talent pathways planning process for the Life Sciences and Biotechnology and Transportation Manufacturing and Autonomy clusters. The following priorities and goals were identified could be addressed through TPI efforts.

#### *Life Sciences & Biotechnology:*

- Develop clear career pathways from entry through senior level employment to illustrate a lifetime of career opportunities in the region's life sciences cluster.
- Implement talent retention and attraction programs, particularly for scientists and middle management professions, centered on local universities and regions that may currently draw talent from this region
- Increase technician and non-degree training

#### *Transportation Manufacturing & Autonomy:*

- Develop clear career pathways from entry through senior level employment to illustrate a lifetime of career opportunities in the region.
- Implement talent retention and attraction programs, particularly for engineering and middle management professions, centered on local universities and regions that may currently draw talent from this region
- Increase technical, engineering and industry-driven training among in-demand occupations



## FUTURE PLANNING/G&D PLAN EFFORTS:

The 2023 Growth and Diversification Plan Review is an opportunity for the Region 2 Council to reflect on the 2021 plan, restate a commitment to the four priority industry clusters, plan goals and strategies, and update regional economic data, so that this living document contributes to strong project development. This plan review builds on the success of the past six years with the GO Virginia program. The plan continues to offer a case for action grounded in a thoroughly researched and deliberated understanding of the economy and labor markets in Region 2.

Between June –October 2023, Region 2 support staff facilitated the plan review through three main actions: 1) analysis of changes in regional and industry cluster economic data through secondary sources (Lightcast, O\*NET, US DOL, American Community Survey), 2) engagement and input from with industry cluster leaders and regional stakeholders through focus groups, and 3) integration of priorities from industry cluster leaders and review by Region 2 Council Members.

### **Analysis of Changes in Regional and Industry Cluster Economic Data**

Between June-August 2023, the support organization led a data analysis of regional economic data and industry cluster data. Particular attention was paid to updating wage data, skills gap analyses, and regional trends impacting workforce participation. Region 2 council members were involved in the plan review throughout the process. Region 2 council members reviewed updated regional economic data at the July 24th council meeting.

### **Engagement with Industry Cluster Leaders and Regional Stakeholders**

In September 2023, four focus groups were held in Fairlawn (Pulaski County), Lynchburg, and Roanoke to solicit feedback from industry cluster leaders and regional stakeholders. Each focus group was co-chaired by 2 regional council members. In total, 68 participants registered to share feedback through the focus groups. Focus groups were facilitated in a hybrid format, with the option to participate either in-person or via Zoom. Focus group participants were asked to identify high-impact priorities for GO Virginia projects within their industry cluster. These priorities were integrated into a survey which was circulated in October 2023 for additional stakeholder input.

### **Integration of Priorities and Review by Region 2 Council Members**

Stakeholder input led to revisions and strengthening of the industry cluster descriptions, and identification of the industry cluster strategies and partners for collaboration outlined on pages 15-22 of this plan review. Region 2 council members reviewed a final draft of this plan review at the Oct 19 council meeting.

# How to apply for a GO Virginia Region 2 grant

## STEP 1: BRAINSTORM IDEAS

Gather together friends, neighbors, colleagues, and fellow innovators to brainstorm ideas that could generate prosperity in our region. Find and review formal application at <https://cece.vt.edu/GOVAR2/RequestforProposals.html>

## STEP 2: PRIORITIZE

1. Does the project fit within one of these four growth industries?



**IT and Emerging Technology**



**Transportation and Autonomy**



**Materials and Machinery Manufacturing**



**Life Sciences and Healthcare**

2. Does it have the potential to bring high-paying jobs to the region?  Yes  No

3. What is the budget for your idea?

4. What kind of return on investment would your community or the state expect to see?

5. Does our region have an already skilled workforce to fill those jobs? Is there training locally to create a skilled workforce?

## STEP 3: CHOOSE WHICH GRANT TYPE IS RIGHT FOR YOU

### A Planning Grant

Regional focused planning project, groundwork for a Per Capita grant

- ▶ Funding: \$100,000
- ▶ Total Match: 1:1
- ▶ Local Match: 20% of total match
- ▶ Partner Engagement: 2+ localities
- ▶ Duration of Project: 1 year

### B Per Capita Implementation Grant

Regionally focused implementation projects

- ▶ Funding: Over \$100,000
- ▶ Total Match: 1:1
- ▶ Local Match: 20% of total match
- ▶ Partner Engagement: 2+ localities
- ▶ Duration of Project: 2 years

### C State Competitive Grant

Multi-region implementation projects between 2 or more GO Virginia regions

- ▶ Funding: Over \$1,000,000
- ▶ Total Match: 1:1
- ▶ Partner Engagement : 2+ regions
- ▶ Local match: Required. 2+ localities
- ▶ Duration of project: 2 years

\*Match waivers are available to request a reduction of Total Match and a reduction or waiver of Local Match

## STEP 4: BE PREPARED TO SHOW THE FOLLOWING IN YOUR APPLICATION

- A Collaboration**   **B Applicant Eligibility**   **C Matching Funds**   **D Return on Investment Estimate**

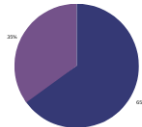
Public/private entities can show evidence of financial participation by collaborating with localities and must meet a minimum threshold. Grant funds should offer broad community benefits and are not to be used as economic development incentive payments or to promote the activities of a single entity.

## STEP 5: KEY CONSIDERATIONS FOR YOUR APPLICATION

### A Threshold Components

Make sure your project covers all five points.

### B Economic Impact (35%)



### C Regional Collaboration (30%)



### D Project Readiness and Capacity (20%)



### E Project Sustainability (15%)



## STEP 6: SUBMIT YOUR APPLICATION

For questions and assistance on project development, email Quina Weber-Shirk ([quina@vt.edu](mailto:quina@vt.edu)).

Letters of interest should be submitted via email to Quina Weber-Shirk ([quina@vt.edu](mailto:quina@vt.edu)).

To access the application form, visit <https://cece.vt.edu/GOVAR2/RequestforProposals.html>.

For more information, please contact:

Quina Weber-Shirk  
Program Manager, [GO Virginia Region 2](#)  
Virginia Tech Center for Economic and Community Engagement  
[quina@vt.edu](mailto:quina@vt.edu)

# GO Virginia Region 2 Quarterly Report

Period: July-September 2023

Total Projects Funded	Total Funds Allocated	Jobs Created to Date	External Investment Generated
45 (29 Projects Completed)	\$9,749,627	744	\$7,816,844

## Area One: Talent development, attraction, and retention

Talent: Aggregated Metrics (from beginning of project – present)									
Status	Project Title (grey indicates closed project)	Metrics							
		Internships completed	Businesses served	New jobs created	Jobs retained	Students trained	Upskilled employees	Credentials awarded	Dual enrollment
	ELITE Internship Program	62	17	17	-	-	-	-	-
	Project Eagle + - also see entrepreneurship metrics	N/A	4	-	-	N/A	-	N/A	N/A
	Regional Talent Strategy Implementation	N/A	19	42	-	42	89	-	N/A
	Workforce & Entrepreneurship Initiatives in a Regional Makerspace – also see	N/A	62	7	-	93	-	N/A	N/A

# GO Virginia Region 2 Quarterly Report

Period: July-September 2023



entrepreneurs hip metrics									
Expanding Welding Training Capacity & Jobs in the Roanoke Valley	N/A	-	-	-	-	-	-	-	N/A
Industry 4.0 for the Automated- Connected- Electrified (ACE) Workforce	N/A	-	-	-	-	-	N/A	N/A	N/A
Lynchburg Career Acceleration	89	30	6	-	-	-	-	4	N/A
CVCC-CTE Academy	-	123	-	-	2,655	-	-	466	587
Classrooms to Careers	10	4	-	-	168	-	-	129	130
Blockchain Ecosystem Catalyst	-	85	4	-	365	-	-	46	-
AMPL (also in sites)	-	34	75	-	500	-	-	-	-

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	Developing a Destination for Talent	217	52	150	-	217	-	-	-
	Ignite Internship Expansion (ECB)	12	6	-	-	12	-	-	-
	Drone Zone	7	4	2.5	0	7	0	0	17
	Talent Collaborative	-	45	-	-	-	141	-	-
	CERE	N/A	78	98	-	-	-	-	-
	<b>Current Project Totals</b>	<b>397</b>	<b>563</b>	<b>401.5</b>		<b>4,059</b>	<b>230</b>	<b>645</b>	<b>734</b>

## ECB Progress Notes:

-  **BRPHSC- Carilion:** The Regional Situational Assessment and Analysis has been completed. A second annual Health Sciences Career Advisory Conference is scheduled for October 19, 2023, additional details can be found [here](#). Established a Diversity Committee as part of the BRPHSC. Project has entered closeout phase.
-  **Bedford Metal Workforce Retention Center:** Completed draft RFP framework for future procurement process. Project did not meet Q3 milestones due to a delay in closing on the Winoa property. Revised closing date will take place in October. Staff is monitoring.


## Implementation Progress Notes:


-  **Project Eagle +:** The Blacksburg site's ribbon-cutting ceremony was held on September 5, 2023, with approximately 80 attendees. The BIO Takeover event held in Roanoke on September 6, 2023, as part of Game Changer Week, featured J&J Investor networking opportunities. The event included presentations from resident companies at J&J Innovation – JLABS at Washington, DC. Dr. Sally Allain from J&J also spoke at

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the event highlighting projects and resources focused on biotechnology in the Roanoke-Blacksburg region. As part of the Quick-Fire Challenge, J&J Innovation, in collaboration with Carilion Clinic Innovation, Verge Alliance and Virginia Tech Corporate Research Center, invited innovators to submit applications aimed to transform patient outcomes in oncology; 43 applications were received and 16 applications have been selected as finalists. Awardees will be announced at a special event on October 25, 2023. JLABS continues to support/mentor four existing cohorts. The conversion from BSL1 to BSL2 has been successful resulting in 4 potential new members and 10 applications still under review.

 **Expanding Welding Training Capacity & Jobs in the Roanoke Valley:** Project did not meet Q3 milestones due to a delay in installation of equipment and cancellation of Fall 2023 adult welding class. Adult welding class expected to be held in Spring 2024. BTEC reports four welding booths have been purchased. 2/3 ventilation bids have been received, awaiting a third estimate. Interior electric contract has been approved and install is scheduled for December 2023; AEP cannot place a transformer to accommodate this work for upward of 24 months, therefore, BTEC is developing the scope of trench exterior electrical conduit to another transformer. Scope and build details are TBD, however, this may likely result in a significant added cost to the project that is beyond the GO Virginia budget of \$250,000. Adult welding classes are being promoted, but there were not enough enrolled participants for the Fall 2023 semester to hold a class. Registration for the Spring 2024 semester is scheduled for November, this will involve high school students. Region 2 staff has scheduled a meeting with the project team.

 **Industry 4.0 for the Automated- Connected- Electrified (ACE) Workforce:** The Project Technical Advisory has been formed, with members in Blacksburg, Roanoke, Dublin, Lynchburg, Botetourt County, and Franklin County. Of which, seven are industry, four are educational, and three are economic development. The first meeting was held on August 25, 2023 at Hotel Roanoke. The Chair was selected. The next meeting is scheduled for November 17. The pre-college outreach activity was held July 18-21, 2023. We welcomed 60 rising 7/8 graders for hands-on learning and friendly competition to bolster teamwork and an interest in STEM. The project was the Alternative Energy Fuel Cell Challenge through SAE. Participants were guided to assemble a toy that uses Proton Exchange Membrane (PEM) fuel cells and electrolysis to power the motor that drives the toy. After the friendly competition, the students participated in a group discussion designed to assess what they learned. The online resource portal has been created and updated this quarter to include our Network Navigator. Networking event to be held in early 2024.

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**Regional Talent Strategy Implementation:** Project did not meet Q3 milestones due to a delay in holding the second convening of the Talent Advisory Council, which is expected to take place in Q4. Meetings with the Experience Committee continue to occur led by the Roanoke Regional Partnership. Staff from RRP travelled to the Tom Tom Festival and the group plans to replicate the event for an Annual Experience Conference to be held in early May 2024. Roanoke College has now expressed an interest in conducting an annual talent summit and the RRP, GRWDB, and RBTC have joined forces to not duplicate efforts. Roanoke College has secured confirmation from the Governor’s office for the Governor to be the keynote speaker, with the next steps being to secure the date around his schedule. Dates are being floated for late February or early March 2024. Staff is monitoring.

## Area Two: Collaborative Sites and infrastructure

Collaborative Sites and Infrastructure Implementation Projects: Aggregated Metrics							
Status	Project	Metrics					
		Acres advanced	Increased locality engagement	Prospects	Businesses attracted	Linear feet of sewer/water/gas	Acres developed
	Amherst Site Readiness	N/A	-	N/A	N/A	N/A	N/A
	Airport Commerce Park	-	-	N/A	N/A	N/A	-
	Falling Branch Corporate Park	-	-	N/A	N/A	-	-
	AMPL- see talent metrics	N/A	Yes	Yes	4	N/A	N/A






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	CERE – see talent metrics						
	Woodhaven	110	Yes	20	0	1150/375/0	110
	Lynchburg Due Diligence	6 sites	Yes				
	<b>Totals</b>	<b>Unknown</b>	<b>Yes</b>	<b>20+</b>	<b>4</b>	<b>Unknown</b>	<b>110+</b>

## Implementation Progress Notes:

- 
**Amherst Site Readiness:** Work is complete for both Amelon and Brockman sites. Project has entered closeout phase.
- 
**Airport Commerce Park:** Phase I environmental site assessment, cultural resources review, and review of threatened and endangered species are all complete. Preliminary geotechnical exploration and report completed. Waters of the US delineation and determination completed. Boundary and topographic survey in progress.
- 
**Falling Branch Corporate Park:** Montgomery County contracted with H&P to revise the grading plans and Stormwater management for the site. The revised plans were submitted to the Town of Christiansburg on September 21, 2023. Permits to be obtained in Q4.

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## Area Three: Entrepreneurship and Business Development

Entrepreneurship: Aggregated Metrics from Implementation Projects							
Status	Project Name	Metrics					
		Jobs created	Existing businesses expanded	New businesses created	Businesses served	Entrepreneurs engaged	Mentors engaged
	Workforce & Entrepreneurship Initiatives in a Regional Makerspace – also see talent metrics	7	N/A	4	62	N/A	N/A
	Project Eagle + - also see talent metrics	-	-	N/A	4	N/A	N/A
	CS/root	-	-	3	-	525	15
	Center for Entrepreneurship	-	-	-	-	N/A	N/A
	VIC-REI	-	-	-	-	-	-
	TAF – Increasing the Birth Rate of High Growth Companies 2	19	-	-	50	22	30
	TAF – Increasing the Birth Rate of High Growth Companies	-	17	-	51	51	29
	RAMP	210	13	2	45	36	93
	Roanoke SBDC	66	-	27	-	-	-
	Pivot and RAMP Up	-	TBD	TBD	24	11	72
	<b>Project Totals</b>	<b>302</b>	<b>30</b>	<b>36</b>	<b>236</b>	<b>634</b>	<b>239</b>

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## Implementation Progress Notes:

 **Center for Entrepreneurship:** Regional advisory board has been created and met for the first time on August 29<sup>th</sup>. Developed an evaluation and communications plan. Center advisory board members and staff participating with Co.Starters Accelerator program to create a plan for entrepreneurial ecosystem mapping. Currently working to recruit and train mentors. The Center's new website is listed [here](#).

## Projects in Process of Contracting:

Strengthening Entrepreneurs' Impact



## GO Virginia Region 2 Executive Committee Meeting Minutes

July 17, 2023, 1:00p.m.- 3:00p.m.

Roanoke Higher Education Center, Room 701A, 108 N Jefferson Street, Roanoke, VA, 24016.

Executive Committee members in attendance: Beverley Dalton (Vice-chair), Paul Denham, Ray Smoot.

Executive Committee members not in attendance: Eddie Amos (Chair), Michelle Austin, Sandy Davis.

Staff in attendance: John Provo, Scott Tate, Sarah Lyon-Hill, Rachel Jones, Alyssa McKenney.

Public in attendance: Cody Anderson.

The meeting convened at 1:02p.m. and adjourned at 2:59p.m.

### ***Financials Review***

Alyssa McKenney reviewed the financial reports included in the information packet. Council has a remaining balance of \$2,248,099 in per-capita funds. If the two proposals before council is approved, there will be a remaining balance of \$995,609.

### ***KPI Template***

John Provo shared a proposed template for KPI data highlights. Reviewed in KPI data highlights included a project pipeline overview, Region 2 project metrics, as well as jobs reported/committed across all grants awarded through GO Virginia Region 2.

### ***Outline for Celebrate Success Event***

John Provo reviewed staff's recommendations and options for an upcoming Celebrate Success event to be held in the Fall of 2023. Ray Smoot suggested 3 events in each sub-region: Roanoke/Alleghany, NRV, and greater Lynchburg.

### ***Project Proposals***

#### ***Strengthening Entrepreneurs' Impact***

Scott Tate offered a brief overview of the new project proposal, "*Strengthening Entrepreneurs' Impact*", submitted by VERGE. Outcomes of this proposed project are a formalized OnRAMP cohort program and an Ecosystem Navigator Program. For Exit Ramp, scaled programming outcomes would include continuing education to RAMP alumni companies and founders, capital and funding opportunities for early-stage companies, better alignment with specific human capital needs and greater mentorship development & retention. Finally, by using upgraded digital tools, such as Crunchbase to gather data, Region 2: Innovation Ecosystem Report will be enhanced with early



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stage startups information. Ray Smoot inquired on long term sustainability plans. John Provo stated VERGE is a returning applicant in the entrepreneurship space since program inception, in past instances, the project team was able to continue their work outside of GO Virginia funding. Region 2 support staff is confident in their ability to sustain this initiative post grant period. Scott Tate confirmed this funding request is for new programming in addition to their available services.

VERGE's request totaled \$577,800 in Region 2 per-capita funds, with a match of \$288,900.

### ***ACA Classical & CTE Institute***

Scott Tate offered a brief overview of the new project proposal, “ACA Classical & CTE Institute”, submitted by Appomattox County. ACA plans 20 new welding booths and new fabrication space. These facilities would add capacity for 35 more welding students annually throughout the Central Virginia Planning District and enhance the educational experience of every CVCC welding student (current enrollment: 143) by introducing the first dedicated fabrication shop for welders-in-training in the region. Every CVCC welding student would have access to the shop, where they would learn related tasks like prep, measuring, and bending along with welding. The Institute will enable CVCC to expand its welding program to include NCCER curricula for welding (Phase I) and implement pipefitting (Phase II). Ray Smoot inquired if Appomattox schools have a welding program. Scott Tate responded this program serves the CTE role for Appomattox County Public Schools. Ray Smoot then inquired on the negative ROI submitted by the applicant. Scott Tate responded he believes that relates to the size of the request as 118 jobs created is not insignificant. Beverley Dalton inquired if CVCC will be credentialing the program. Scott Tate confirmed that is correct.

Appomattox County's request totaled \$565,000 in Region 2 per-capita funds, with a match of \$429,969.

### ***Special Updates***

#### ***Preliminary G&D Updates***

Sarah Lyon-Hill provided a detailed overview of 2023 updates to the GO Virginia Region 2 Growth & Diversification Plan. Information reviewed includes the goals of the G&D plan updates, regional data highlights, skills gap analysis, and next steps for final submission in October. The finalization of the draft will take place in July-September, with assistance from regional stakeholder engagement sessions to be held in August. The final draft of the plan will be presented to the GO Virginia Region 2 Council at its next meeting on October 19<sup>th</sup>, with final submission to the state on October 31<sup>st</sup>. Region 2 support staff are requesting council volunteers to chair each regional stakeholder engagement session.

### ***State Updates- Virginia Department of Housing & Community Development***

Cody Anderson, Virginia Department of Housing & Community Development (DHCD), provided an overview of state updates regarding the matching fund requirements for future project applications. The GO Virginia State Board voted to end the local match waiver and return to original total match



requirements of 1:1 matching funds for implementation projects, with reinstated local match requirements, but eliminating the \$50,000 minimum. Planning grants will return to a required 2:1 matching funds, with no local match required. Other changes include a total and local match waiver request process. Total match waiver requests will be processed for localities who are identified as under fiscal distress or state funding could lead to an extraordinary economic opportunity. Local match waiver requests will be processed based on localities' ability to financially contribute.

## ***Council Business***

### ***Membership Reappointments***

This agenda item was carried over to the full council.

### ***Outline for Celebrate Success Event***

John Provo reviewed staff's recommendations and options for an upcoming Celebrate Success event to be held in the Fall of 2023. Vice-chair Beverley Dalton encouraged committee members to provide feedback to regional staff over email correspondence at any time during the planning process.

### ***Quarterly Project Reporting***

Rachel Jones reviewed active project status, noting there is one current project listed in yellow, meaning they did not meet one or more quarter 2 milestones and staff is monitoring. All other active projects are listed in green, meaning they have met quarterly milestones and are on track with their current deliverables.

Rachel Jones then provided an overview of the packet information item: Region 2's Electronic Meeting Authorization.

The meeting adjourned at 2:59p.m.



## GO Virginia Region 2 Executive Committee Meeting Minutes

April 20, 2023, 1:00p.m.- 3:00p.m.

Roanoke Higher Education Center, Room 701A, 108 N Jefferson Street, Roanoke, VA, 24016.

Executive Committee members in attendance: Eddie Amos (Chair), Beverley Dalton (Vice-chair), Sandy Davis, Ray Smoot.

Staff in attendance: John Provo, Rachel Jones, Alyssa McKenney.

Public in attendance: Brian Hamilton.

The meeting convened at 1:00p.m. and adjourned at 2:52p.m.

### ***Executive Committee Nominations***

Chairman Amos recommend the appointments of Mr. Jacob Wright, member of the Alleghany Highlands School Board, and owner of Merry Go Round Farms, Ms. Cathy Underwood, President of Branch Builds, Ms. Whitney Czelusniak, with American Electric Power (AEP), Mr. Richmond Vincent, President and CEO of Goodwill of the Valleys, and Mr. Greg Feldmann, President of Skyline Capital, to represent the Roanoke Valley/Alleghany Highlands.

Beverley Dalton motioned to recommend the appointment of Jacob Wright, Cathy Underwood, Whitney Czelusniak, Richmond Vincent, and Greg Feldmann. Sandy Davis seconded. All were in favor and none opposed.

Beverley Dalton recommended the appointment of Mr. Bif Johnson, President and CEO of Hurt & Proffitt, to represent the Lynchburg subregion.

Sandy Davis motioned to recommend the appointment of Mr. Bif Johnson, President and CEO of Hurt & Proffitt. Beverley Dalton seconded. All were in favor and none opposed.

Chairman Amos then recommended Beverley Dalton assume the role of Vice-chair, as well as the appointments of Michelle Austin and Paul Denham to join the Executive Committee.

Sandy Davis motioned to appoint Beverley Dalton as Vice-chair, as well as the addition of two executive committee members, and Ray Smoot seconded. All were in favor and none opposed.

### ***Financials Review***

Alyssa McKenney reviewed the financial reports included in the board packet. Council has a remaining balance of \$1,051,997 in per-capita funds. If the proposal before council is approved, there will be a remaining balance of \$727,997.



## ***Project Proposals***

### ***Falling Branch Corporate Park Phase II Regional Site Development***

Rachel Jones offered a brief overview of the new project proposal, “*Falling Branch Corporate Park Phase II Regional Site Development*”, submitted by the Montgomery County Economic Development Authority (EDA). Brian Hamilton, Montgomery County Economic Development Authority, shared project deliverables and answered questions from the committee. Ray Smoot inquired on the availability of an end-user for the site. Brian Hamilton stated there are currently 3 different companies interested in the site. Chairman Amos inquired if the applicant is seeking outside funding sources other than GO Virginia. Brian Hamilton stated the Town of Christiansburg provided \$300,000, and they have submitted an application to the Virginia Department of Transportation. Chairman Amos requested clarification of Montgomery County’s contribution to the project. Brian Hamilton stated Montgomery County provided \$5.4 million, however, the EDA has been negotiating with Atmos Energy for quite some time and have ultimately concluded Montgomery County will have to pay the additional \$530,256 to extend natural gas to the site, therefore, lowering Montgomery County’s total contribution.

Montgomery County EDA’s request totaled \$324,000 in Region 2 per-capita funds, with a local match of \$4,585,359.

Sandy Davis motioned to recommend this proposal to the Region 2 Council and Beverley Dalton seconded. All were in favor and none opposed.

### ***Region 2 Talent Pathways Initiative***

John Provo offered a brief overview of the new project proposal, “*Talent Pathways Initiative*”, submitted by Virginia Tech’s Center for Economic and Community Engagement. The Talent Pathways Initiative (TPI) is a new planning grant to help GO Virginia regions build better buy in from industry leaders and strengthen alignment with workforce and education in one or two priority industry clusters. One \$250,000 TPI planning grant is available for each GO Virginia region. Executive Committee members concluded they would return to the full council for guidance on the Region 2 Talent Pathways proposal.

## ***Council Business***

### ***Quarterly Project Reporting***

Rachel Jones reviewed active project status, noting there is one current project listed in yellow, meaning they did not meet one or more quarter 1 milestones and staff is monitoring. All other active projects are listed in green, meaning they have met quarterly milestones and are on track with their current deliverables.

### ***Minutes***





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The committee reviewed minutes from the Region 2 Executive Committee Meeting held on December 20, 2022. Chairman Amos asked if there were any corrections, additions, or questions regarding the minutes; there were none.

Beverley Dalton motioned to approve the minutes, with Sandy Davis seconding. All were in favor and none opposed.

The meeting adjourned at 2:52p.m.

DRAFT