Contributing to Talent and Workforce Production

2017 Quarter 4
Virginia's Blue Ridge Works
(VBRW)
Quarterly Workforce Report

Office of Economic Development

Quarterly Workforce Report
2017.4

Welcome to the 2017 fourth quarter workforce report, produced by the Virginia Tech Office of Economic Development on behalf of the Area III Workforce Development Board (VBRW), Virginia's Blue Ridge Works! This region includes the counties of Alleghany, Botetourt, Craig, Franklin, Roanoke, and the independent cities of Roanoke and Salem. These quarterly reports analyze and present regional labor supply and labor demand data to inform the public of the evolving workforce landscape. Please note that the data presented in this report is the most up-to-date data available as of December 2017.

In this quarter's report, we explore some basic regional trends including population, employment, and workforce gaps. We then delve into four industries targeted by the region's GO Virginia Growth and Diversification Plan. This GOVA region is comprised of VBRW and the New River Valley—spanning from Pulaski in the southwest, Franklin County in the southeast, Giles in the northwest, and Alleghany County in the northeast.

GO Virginia is a recent initiative approved by Virginia's House of Delegates, which offers funding for suitable workforce and economic development projects. By improving collaboration across regions, this initiative is meant to leverage local capacity to encourage the development of targeted industry clusters that have predominantly higher wages and attract money from outside the state. GO Virginia regions across the state have identified four or more target industry clusters, and have developed strategies to grow and diversify these clusters. **Arguably one of the most prominent strategies identified by all GO Virginia regions was to growth, retain, and attract skilled workers. This report will provide some basic data on the target GOVA clusters in VBRW and highlight assets and areas where workforce stakeholders may play a role in GO Virginia.**

Regional Overview

Population Trends

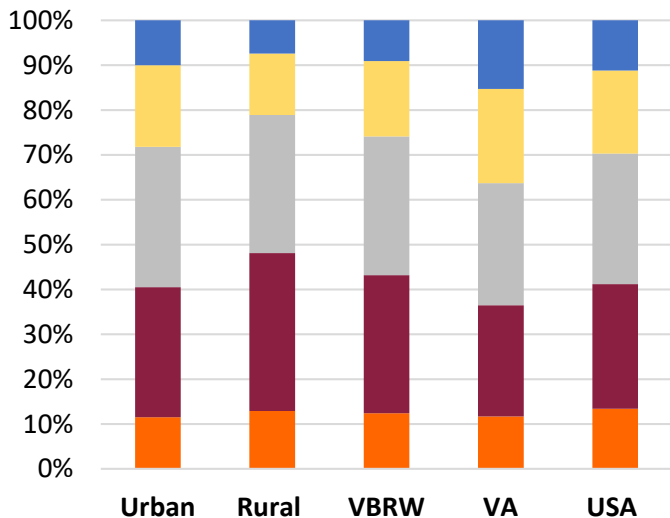| Urban	Rural	VBRW	VA	USA
Annual Avg. Population Growth 2012-2017				
0.4%	-0.2%	0.2%	0.7%	0.7%
Median Age 2016				
41.2	47.1	43.2	38.1	37.9

Labor Force Trends

Urban	Rural	VBRW	VA	USA
Labor Force Participation Rate (2011-2016)				
64.2%	57.4%	61.1%	66.2%	63.5%
63.1%	61.3%	63.2%	67.2%	64.8%
Per Capita Income in Dollars for 2016				
$27,959	$27,473	$27,788	$34,967	$29,829
Population Below Poverty Line (2016)				
14.7%	13.5%	14.3%	11.4%	15.1%

Educational Attainment 2016

- ■ Master's Degree and above
- ■ Bachelor's Degree
- ■ Some College
- ■ High School Graduate (Includes Equivalency)
- ■ Less than High School

Employment

Urban	Rural	VBRW	VA	USA
Labor Force Growth (2011-2016)				
2.7%	1.7%	2.4%	5.7%	5.0%
Employment Growth (2011-2016)				
0.0%	0.9%	0.3%	0.6%	1.3%
Unemployment Rate 2016				
6.0%	5.4%	5.8%	5.9%	7.4%
Underemployment Rate 2016				
6.2%	8.2%	7.5%	10.9%	8.9%

Key workforce gaps, based on job openings and educational completions, are centered around service occupations in health care. The largest gaps include nursing assistants, personal care aides, registered nurses, home health aides, licensed practical nurses, and licensed vocational nurses.

Key Workforce Gaps

Legend: ■ Annual Openings   ■ Regional Completions (2016)

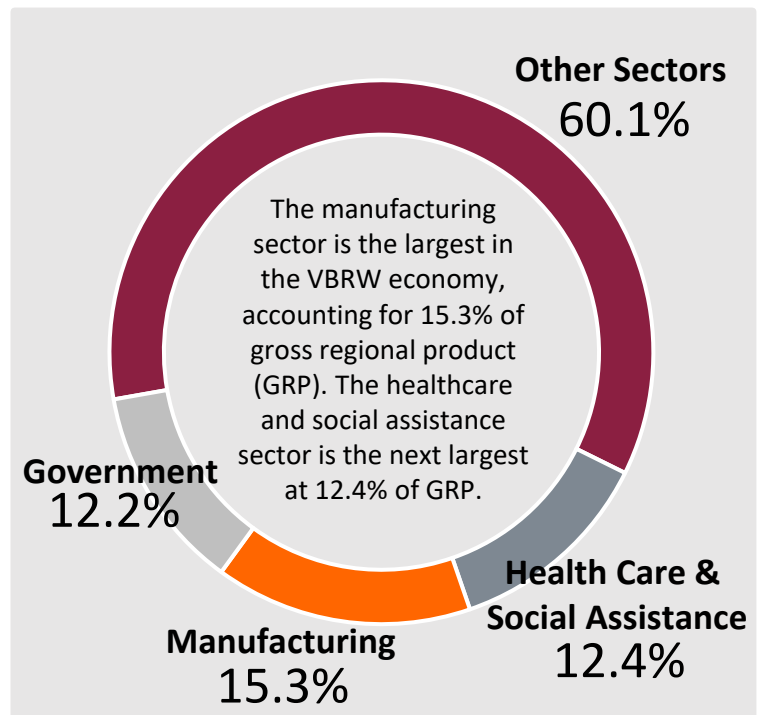| Occupation	Annual Openings	Regional Completions (2016)
Nursing Assistants	409	37
Personal Care Aides	316	41
Registered Nurses	389	197
Childcare Workers	178	21
Electricians	131	22
Auto. Service Technicians & Mechanics	107	10
Home Health Aides	108	18
Licensed Practical or Vocational Nurses	102	43
Welders, Cutters, & Brazers	92	43

+6,400 Jobs

Virginia's Blue Ridge Works region is home to more than 10,000 establishments that are expected to add more than 6,400 jobs in the next five years.
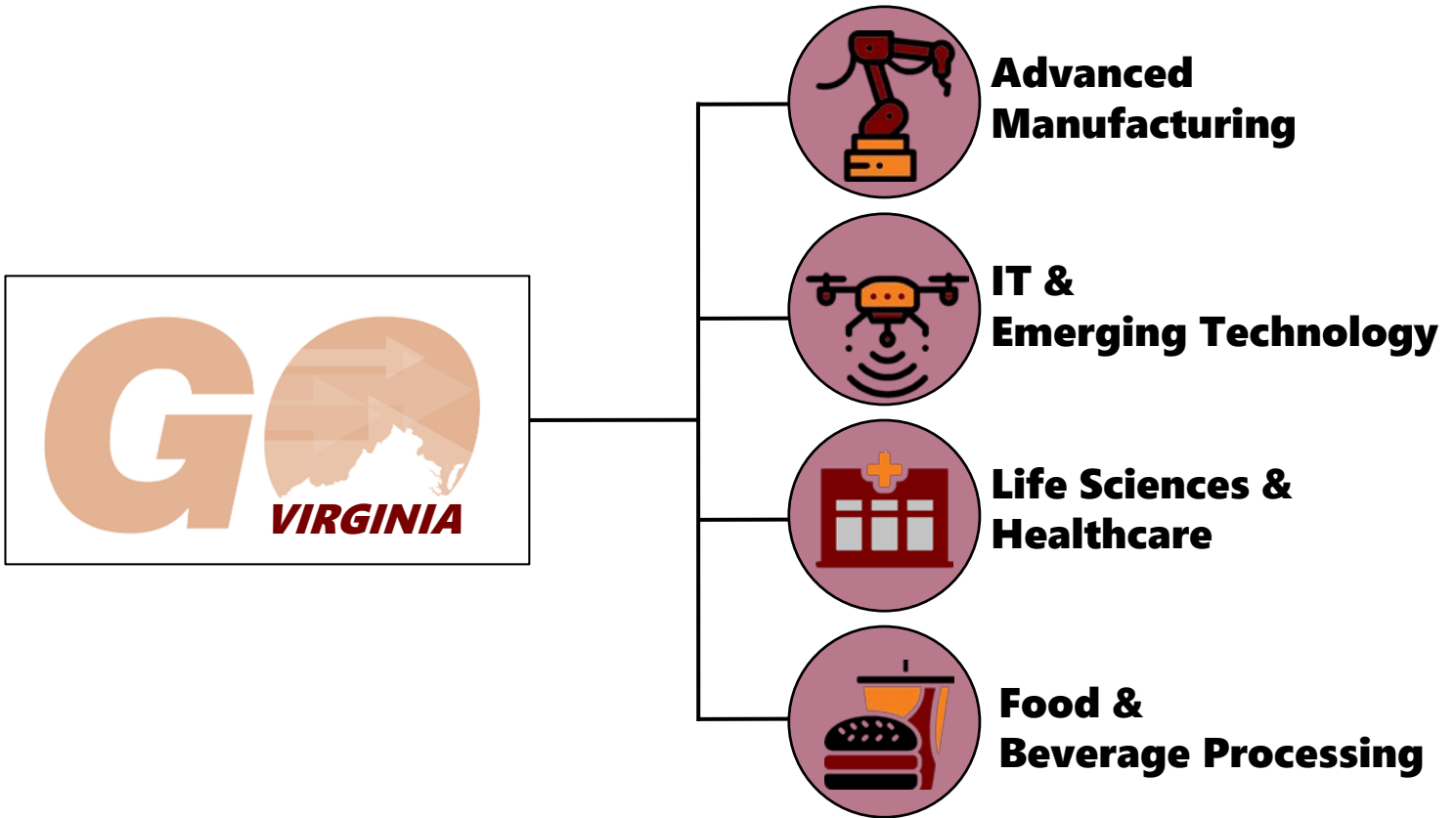
$13.75B

The VBRW economy produces $13.75 billion per year of value-added goods and services.

Other Sectors 60.1%

The manufacturing sector is the largest in the VBRW economy, accounting for 15.3% of gross regional product (GRP). The healthcare and social assistance sector is the next largest at 12.4% of GRP.

Government 12.2%

Manufacturing 15.3%

Health Care & Social Assistance 12.4%

GO Virginia Industries

The four GOVA Region Two industry clusters offer a strong future for the Virginia's Blue Ridge Works economy. They represent about 31% of the regions gross regional product (GRP) and, if focused on, can help promote higher paying jobs and attract new money to the region.

Advanced Manufacturing

IT & Emerging Technology

Life Sciences & Healthcare

Food & Beverage Processing

Location Quotient (LQ)

Is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region "unique" in comparison to the national average.
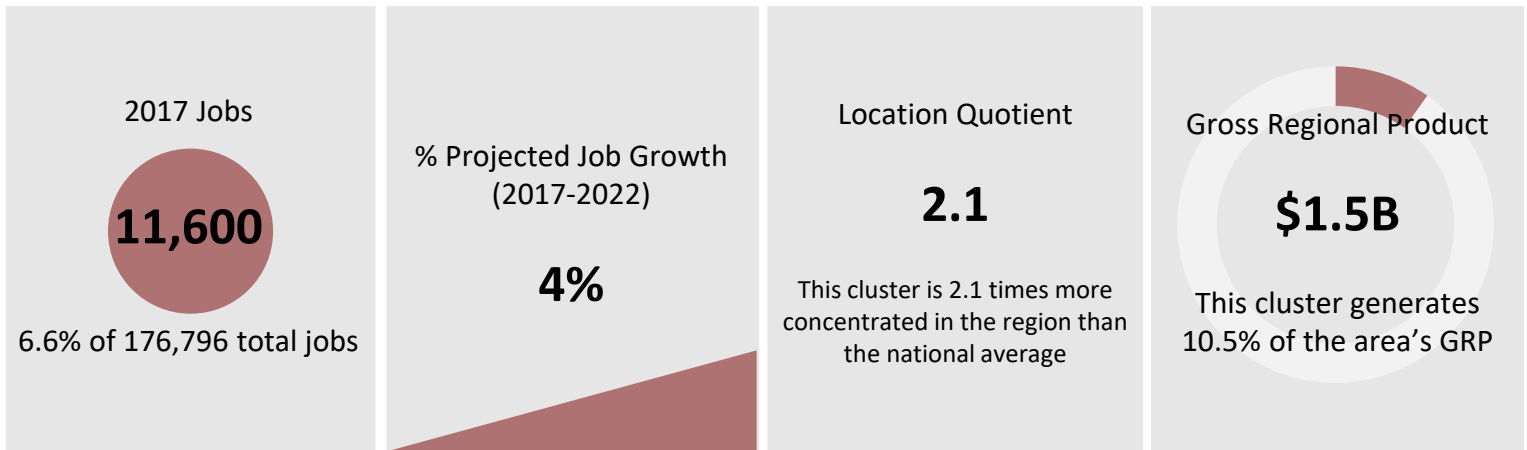
Gross Regional Product (GRP)

Measures the final market value of all goods and services produced in a region.

Advanced Manufacturing

This cluster is comprised of establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. Advanced manufacturing goes beyond traditional manufacturing by harnessing emerging technologies and cutting edge materials to advance automation. Regional industries that tend towards advanced manufacturing by utilizing sensors, software, and other technologies include: chemical, automotive and transportation equipment, metalworking, plastics, and electrical equipment and components manufacturing. Some in-demand, middle-skilled occupations include industry machinery mechanics and maintenance repair workers as well as welders, cutters, solderers, and brazers.

GOVA Cluster Numbers for VBRW:

2017 Jobs

11,600

6.6% of 176,796 total jobs

% Projected Job Growth (2017-2022)

4%

Location Quotient

2.1

This cluster is 2.1 times more concentrated in the region than the national average

Gross Regional Product

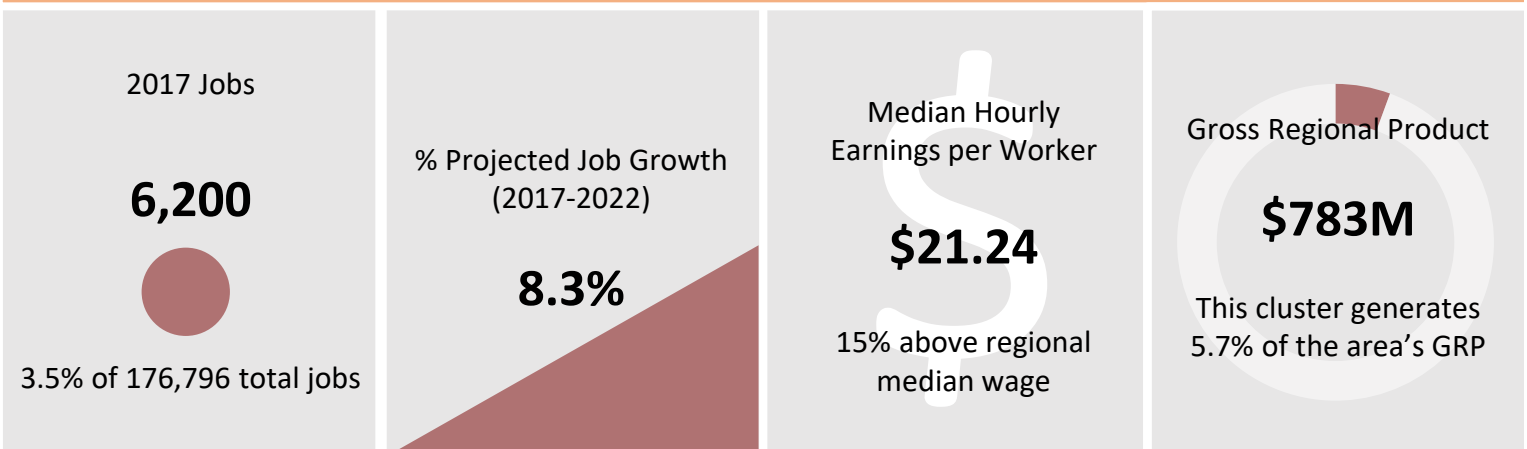**$1.5B**

This cluster generates 10.5% of the area's GRP

IT and Emerging Technology

This cluster includes existing and emerging industries that ultimately support many other prominent driver industries in the region. Industries include Knowledge Creation and R&D, autonomous systems, and cybersecurity and information technology. When applied, these progressive developments can give a competitive advantage to businesses. Some in-demand, middle-skilled occupations include computer user support specialists, software developers, computer systems analysts, and telecommunications and electrical power line installers and repairers.

GOVA Cluster Numbers for VBRW:

2017 Jobs

6,200

3.5% of 176,796 total jobs

% Projected Job Growth (2017-2022)

8.3%

Median Hourly Earnings per Worker

$21.24

15% above regional median wage

Gross Regional Product
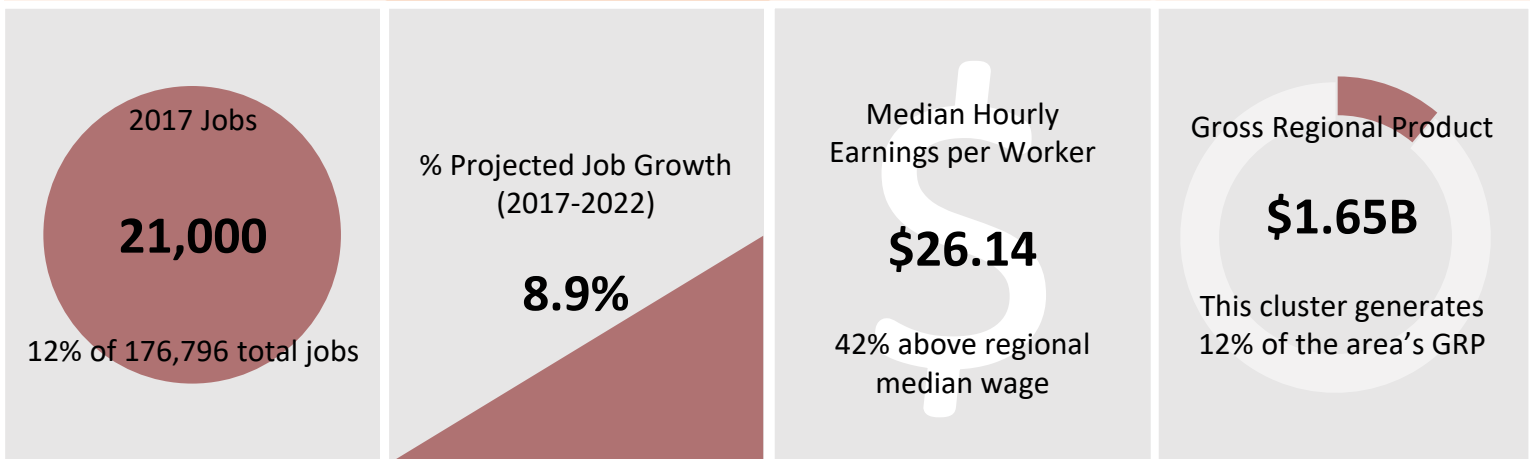
$783M

This cluster generates 5.7% of the area's GRP

Life Sciences and Healthcare

Life sciences is a multidisciplinary field which bridges the gap between emerging technology and biomedical fields. It actively combines disease management, medical technology, societal aspects of health, and psychological behavioral health. The central focus is to improve patient centered care by using medical and information technologies which aim to increase the quality and length of human life. Although this spans across multiple industry sectors, education and hospitals are the greatest contributors in this region. Employment in education and hospitals is four times higher than the national average. Some in-demand, middle-skilled occupations include registered nurses, home health aides, nursing assistants, LPNs and LVNs.

GOVA Cluster Numbers for VBRW:

2017 Jobs

21,000

12% of 176,796 total jobs

% Projected Job Growth (2017-2022)

8.9%

Median Hourly Earnings per Worker

$26.14

42% above regional median wage

Gross Regional Product
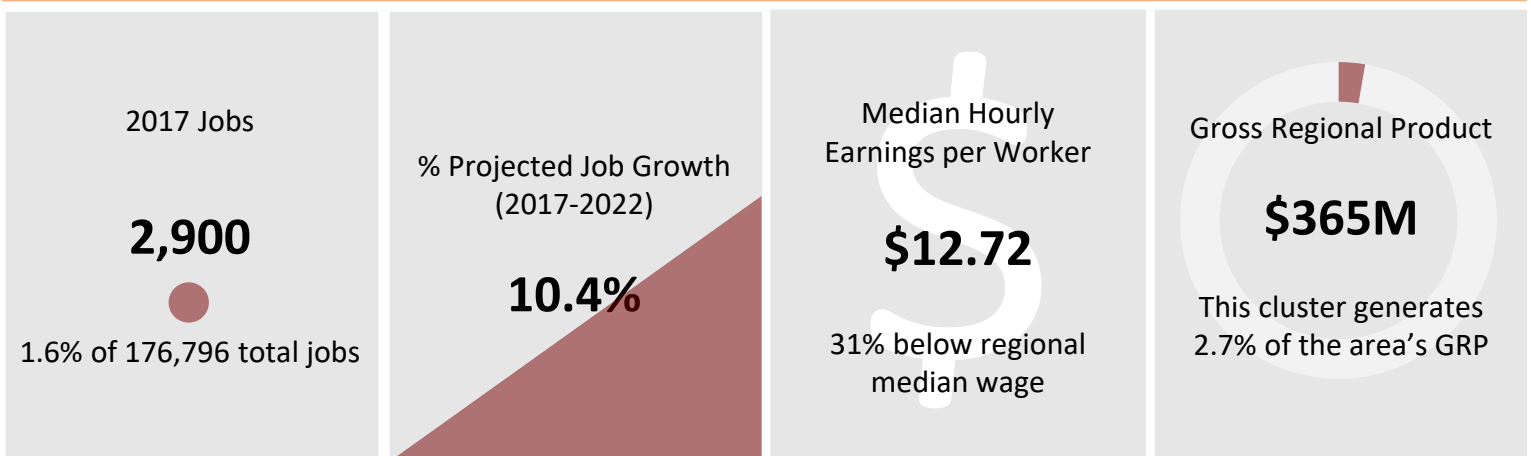
$1.65B

This cluster generates 12% of the area's GRP

Food and Beverage Processing

The Food and beverage processing cluster includes agriculture and manufacture components, as well as packaging and distribution. Although this spans across multiple industry sectors, beverage processing and manufacturing is the greatest contributor to the high concentration with a location quotient of 2. Meaning that the concentration is double that of the nation. While the median hourly earnings of jobs in this field is currently lower than the regional median overall, that could change as the industry becomes more technologically advanced in the region. Some in-demand, middle-skilled occupation include heavy truck and light truck delivery drivers.

GOVA Cluster Numbers for VBRW:

2017 Jobs

2,900

1.6% of 176,796 total jobs

% Projected Job Growth (2017-2022)

10.4%

Median Hourly Earnings per Worker

$12.72

31% below regional median wage

Gross Regional Product

$365M

This cluster generates 2.7% of the area's GRP

The Virginia's Blue Ridge Works Workforce Development Area is a part of GO Virginia region two. Region two highlights key goals and strategies pertaining to workforce and talent development. GO Virginia stakeholders—comprising business, economic development, education and workforce representatives—realize that creating a pipeline of workers is imperative to encouraging the growth and diversification of these regions' economies. Below are some goals and strategies highlighted in the region two plan and ideas of how workforce stakeholders might participate.

GOVA Goals and Strategies	Possible Activities and Partnerships
Strengthen the pipeline from K-12 to higher education to career for each priority sector	Define clear career pathways for each of the four priority industry sectors and support programs that address critical pathway training opportunities (e.g. apprenticeships, STEM-focused CTE, or etc.). Begin job training at K-12 level and enhance K-12 career exploration activities. Bridge the interest gap through the creation of targeted awareness and recruitment campaigns in each priority industry sector.
Increase completions of degrees applicable to target industry sectors	Activities that help raise awareness and appeal of industries and occupations such as advanced manufacturing. This includes opportunities to cross-market and cross-promote high-wage job opportunities, technical programs and certifications. Provide financial assistance or incentives for students to enroll in certificate or degree programs that lead to careers in high-demand occupations Activities to offer more varied, innovative, and accessible training and educational opportunities for higher-wage in-demand occupations (web-based, distance learning, intensive boot-camp learning, pre-apprenticeships, etc.).
Improve knowledge and promotion of complementary workforce and training services	Development and implementation of a collaborative region-wide impact-focused program model Development and implementation of a virtual "one-stop shop" resource for employers, workers, students and their parents
Enhance employer engagement activities that will encourage more aligned skill development, create opportunities for regional employment post-graduation, and promote the hiring of indemand occupations	Develop and promote experiential learning opportunities Increase and promote internship opportunities Identify innovative employer engagement activities that promote the presence of in-demand job openings
Support and enhance regional talent attraction efforts.	Activities to help measure, market, and illustrate the region's assets, stories, and quality of life. Activities that target, recruit, and market to workers and highly skilled individuals outside Virginia.

SELECTED GOVA INDUSTRY ASSETS
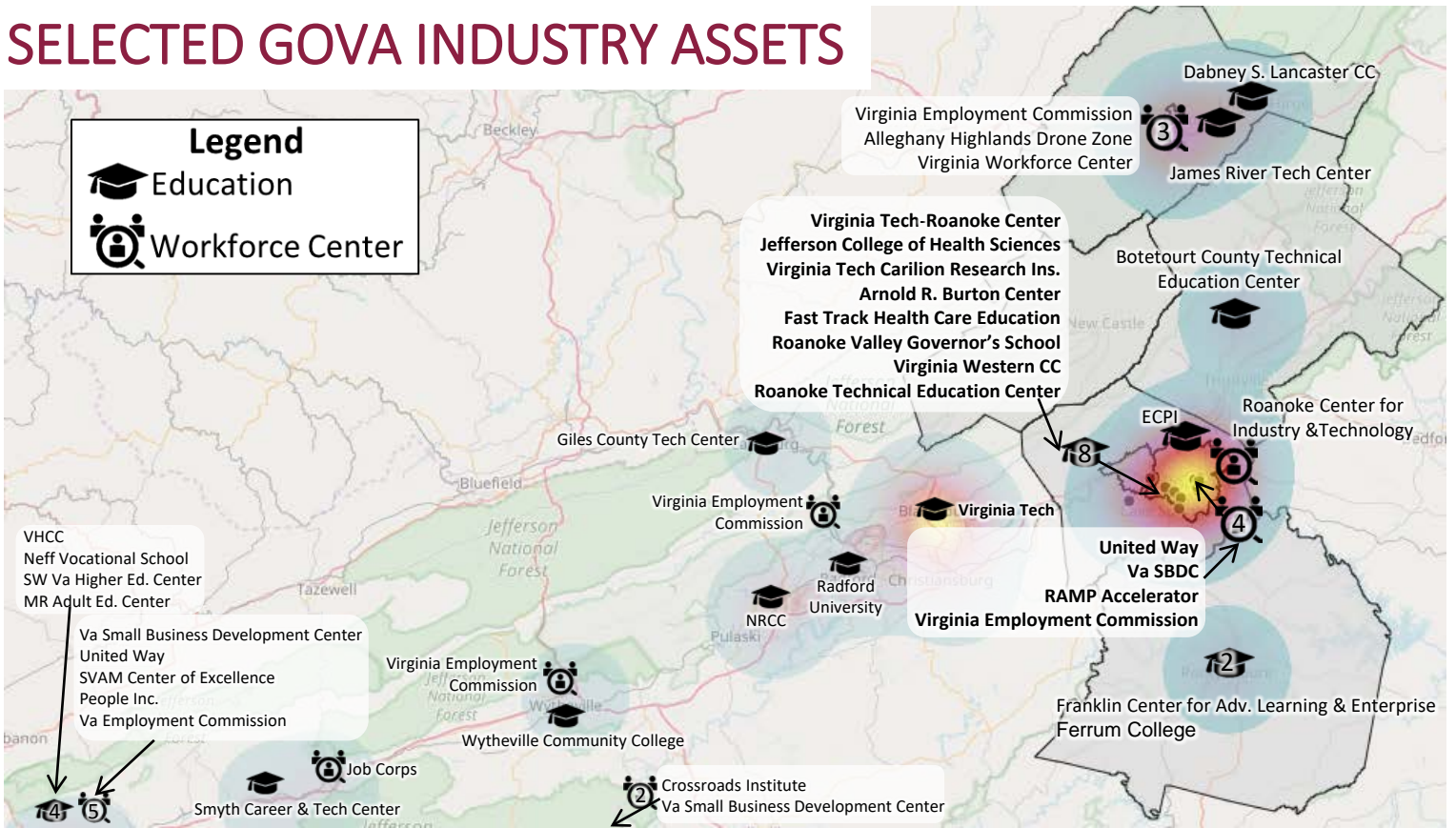
Sampling of possible GOVA partners	Career & Technical Education	Certificate/ Associates	Four-year & above	One-stop workforce center	Business resource	Other
Arnold R. Burton Center	X					
Botetourt County Technical Ed. Center	X	X				
Dabney S. Lancaster Community College	X	X				
Franklin Center for Adv. Learning	X	X		X		
James River Tech Center	X					
Jefferson College of Health Sciences		X	X			
Project Lead the Way (various high schools)	X					
RAMP Accelerator					X	
Roanoke Centre for Industry & Tech	X	X				
Roanoke Technical Education Center	X					
United Way				X	X	X
Virginia Employment Commission				X	X	
VA Small Business Development Center					X	
Virginia Tech Carilion Research Center		X	X			
Virginia Tech-Roanoke Center					X	X
Virginia Western Community College	X	X				

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