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GO Northern Virginia Region 7

2023 Growth & Diversification Plan Update

Go Northern VA | Region 7 |
Economic Development
Initiative

Support Organizations: Northern Virginia Regional Commission (NVRC) and SkillSource Group (SSG)

# **Executive Summary**

The following is the 2023 Growth and Diversification Plan (GDP) update adopted by the Region 7 (Northern Virginia) Council. This document was initially adopted in 2017 and updated in 2019 and 2021. The Virginia Growth and Opportunity Fund (GO Virginia) is a public-private approach to boosting economically sustainable growth in the Commonwealth. The Initiative is specifically geared to incentivize inter-jurisdiction collaboration among the localities included in Region 7 (Arlington County, Fairfax County, Loudoun County, Prince William County, and the independent cities of Alexandria, Fairfax City, Falls Church, Manassas, and Manassas Park). The implementation of the GDP is guided by the Region 7 Council, comprised of business and community leaders, educational institutions, economic and workforce development professionals, and elected officials.

This plan update was prepared by the Region 7 Support Organization staff, with input and guidance from the Region 7 Council. The plan document includes updates to data, but also a change in format to align with the new Go Virginia guidelines.

Region 7 has opted to keep its nine (9) priority clusters as identified in the 2021 Growth & Diversification plan but place greater emphasis on four (4) industry clusters that align with their Talent Pathways Initiative currently in development. The four (4) priority clusters include Computer software (data sciences, artificial intelligence, and autonomy), Cybersecurity (services and products), Emerging Technologies (nanotechnology material sciences, and quantum computing), and Life Sciences. Most current and future projects are focused on these sectors.

Northern Virginia's labor market has many strengths. We are home to a broad range of employers across various industry sectors, government and non-profits, and an array of world-class learning institutions. The area continues to grow in terms of population. Perhaps more importantly, the region has a talented and diverse workforce with distinct strengths in engineering, computer science, cybersecurity, and data analysis. It is a marketplace where employees want to avoid returning to a corporate office five days a week and demand extensive flexibility because of their technical talent.

However, effects of the pandemic eroded job security for many, including a disproportionately high number of minorities across the region. Talent, grit, and the drive to succeed are distributed thoroughly and extensively. Opportunity, on the other hand, is not. Northern Virginia must work hard to change this lack of opportunity and the need is immediate. Northern Virginia is no longer attracting large numbers of new employees or recent college graduates due to the excessive cost of living and lack of affordable housing. The economics are simple: we must either grow inclusively and develop local talent pipelines or we will not grow.

Region 7 lags in inclusive economic growth, apprenticeships, internships, and summer youth employment, which can play a critical role in our region and help to build a more economically inclusive community. The reality is if the talent is not available, employers will leave the region.

The Region 7 Council is committed to responding to the challenges and opportunities that the

region offers.

# **Priority Industry Clusters**

Region 7 has opted to keep its nine (9) priority clusters as identified in the 2021 Growth & Diversification plan but place greater emphasis on the four (4) highlighted industry clusters below that align with their Talent Pathways Initiative currently being developed.

## Region 7's Priority Industry Clusters with Emphasis on 4

- Computer software (data sciences, artificial intelligence, and autonomy)
- **Cybersecurity** (services and products)
- Emerging Technologies (nano, material sciences, and quantum computing)
- Life Sciences
- Consulting Services
- Engineering
- Financial Services
- Research Organizations
- Health Sciences (Medical devices, genomics, proteomics and other life sciences)

The region's three most significant clusters—computer services, consulting services, and cybersecurity—are heavily influenced by government contracting and have rebounded due to an uptick in federal contractor spending in the past four years.

A commonality among targeted clusters is the need for significant numbers of capable technology workers. Computer-related occupations represent a substantial share of total jobs in several of the Region's top clusters and have risen over the past two years. Information Security Analysts and Computer and Information Research Scientists remain heavily concentrated in Region 7.

## **Economic Performance**

The performance of the Region 7 economy is strong, as evident by the following:

- The GDP in 2021 was \$250 million, representing 41.4% of Virginia's GDP.
- The Northern Virginia regional economy drives much of the state's economy representing more than 41.4 percent of all Commonwealth economic output in 2021.
- The region is home to more than 2.54 million residents, which represents about 30 percent of the state's population. By 2040, the region is forecasted to surpass 3 million people; double the population in 1990.
- Northern Virginia's income is nearly double that of the nation, consisting of four of the top

ten localities in the nation for income.

• Northern Virginia is the wealthiest region in the state, with a median household income of over \$132,000.

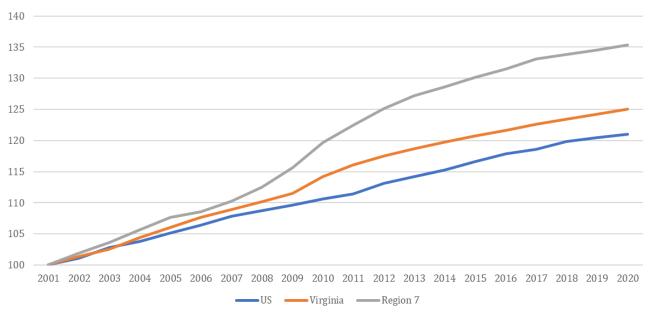
The largest industries in Northern Virginia's Professional & Business Services sector are in the chart below. These industries are highly concentrated in the region; computer systems design and related services is five times more concentrated in the region than it is nationally, and management, technical and scientific consulting services is more than four times more concentrated based on location quotients.

NAICS	Industry	2020 Employment	Avg. Annual Wages	Location Quotient	Annual % Emp Change (2015-2020)	
				Quotient	Region 7	US Total
5415	Computer Systems Design and Related Services	119,542	\$154,746	5.49	1.60%	1.92%
5416	Management, Scientific, and Tech. Consulting Services	62,207	\$144,072	4.09	2.65%	2.51%
5617	Services to Buildings and Dwellings	30,123	\$37,895	1.45	-1.43%	0.62%
5511	Management of Companies and Enterprises	29,508	\$198,301	1.28	2.73%	0.82%
5413	Architectural, Engineering, and Related Services	28,466	\$139,851	1.91	-0.02%	0.90%
5412	Accounting, Tax Prep., Bookkeeping, and Payroll Services	21,549	\$123,604	2.13	1.89%	0.49%
5613	Employment Services	16,532	\$69,147	0.52	3.63%	-0.99%
5417	Scientific Research and Development Services	15,756	\$146,671	2.11	2.77%	1.79%
5616	Investigation and Security Services	15,677	\$71,752	1.72	-0.07%	0.62%
5411	Legal Services	9,800	\$126,754	0.87	-1.21%	0.21%

Source: EMSI

- Northern Virginia's unemployment rate, as of September 2023, is 2.6%, lower than Virginia (3.0%) and the United States (3.6%).
- Northern Virginia's thriving business community, entertainment, and top education systems draw families and younger populations. The median age for Northern Virgina is 37.8, while the national median is 38.9.
- Highly educated workforce with 60.4 percent of the working age population possessing at least a bachelor's degree, compared with the national average of 33.7 percent and the statewide average of 40.3 percent.

Northern Virginia is the state's fastest growing region and continues to grow faster than either the state or nation. The figure below demonstrates the index of Population Growth.



Source: EMSI; U. S. Census Bureau, Population Estimates Program

#### Region does have significant economic challenges:

- A persistent over-reliance on federal spending, which caused the region to experience slower economic growth during recent times of uncertainty regarding the federal budget.
- An over reliance on consulting business models, rather than product or technology enabled services that allow businesses to leverage technology and labor to create higher profit margins and growth, which can lead to the federal government seeking technology innovation from other regions more focused on product-led commercial products.
- A shortfall of compelling high growth technology product companies when compared to
  other regions, causing Region 7's share of national venture capital to fall precipitously over
  the past 20 years, affecting wage growth, and causing business exits to lag behind regions
  that have established themselves as hotbeds of technology company formation, growth,
  and market exit (IPOs, M&A).
- Even with significant per capita income, Region 7 has a very high cost of living. Using the national cost of living composite, the indexed cost of living in Northern Virginia is 140 (compared to the national average of 100). This has contributed to domestic net outmigration of the Northern Virginia population for each of the past six years.
- The region's commute times are among the longest in the nation. Average travel time from place of residence to employment is about 33.4 minutes.

# Where We Are -State of the Regional Economy

In a recent Washington Business Journal article, the current state of the Northern Virginia economy and workforce challenges were a focus. The region is experiencing the same tight labor market as much of the nation. These challenges were documented in the 2021 Region 7 Growth and Diversification Plan. Currently, Northern Virginia has an unemployment rate lower than the state and national average, with more than 60,000 job openings. Many open positions in Region 7 remain unfilled for long periods of time, primarily in high-demand fields such as computer software and services, cybersecurity, life sciences, and in emerging technologies, such as quantum computing, artificial intelligence, and nanotechnology. Since these are the targeted industry sectors for Region 7, the challenges and obstacles remain little changed from the 2021 report. In many cases, the obstacles to economic success have increased.

The COVID Pandemic hit the Northern Virginia labor market very hard with many industries and occupations tragically reduced and thousands of jobseekers forced to consider new career options. The top issue for most employers today is finding and retaining qualified workers. Employers often point to a shortage of candidates with the necessary education and professional experience as the reason crucial positions remain unfilled. Meanwhile, recent workforce data reveals that Northern Virginia has more than 30,000 unemployed or underemployed jobseekers, many of whom lack a college degree, but possess skills and work experiences that could be transferred to in-demand occupations.

Jobs in some sectors are disappearing while still other roles in other emerging areas are growing faster than can be filled," said Marty Rodgers, Market Unit Lead – US South, Accenture. "Companies are struggling to identify and hire talent to fill all available roles through conventional means, that is, finding and recruiting individuals with traditional four-year degrees who have the skills needed for available jobs, many of which can lead to meaningful careers."

Not only do work-based learning opportunities benefit employers by opening new, untapped sources for talent, these programs also create new career pathways for non-traditional hires and help re-skill those whose jobs have been or will be disrupted, said Rodgers.

"Accenture has shown that there are more than 70 million Americans with the skills, but maybe not the certifications, to do more and help meet our burgeoning skills gap of unfilled jobs. Hands-on training programs give historically underrepresented groups pathways to digital economy jobs and sustainable careers while solving a critical talent need for employers."

The region faces a severe shortage of qualified technology workers. According to data from EMSI, there were more than 9,000 openings in Computer Science and Information Technology in the region in the month of October 2023 alone. Many employers across each of the region's technology communities report having difficulty finding workers who possess both the necessary skills required for many of these jobs. Because of the distinctly different growth requirements of the Region's technology communities, a one size fits all approach to talent creation and job connection is unlikely to succeed.

The table below offers data on key computer-related occupations in Northern Virginia.

Occupation	2023 Q2 Jobs	2023 Q2 LQ	Median Earnings 2023	Job Change CAGR 2018-2023	Job Change CAGR 2023-2028	Job Openings Past 30 Days <sup>1</sup>	Job Openings Past 12 Months <sup>1</sup>
Software Developers	44,266	3.25	\$142,700	2.8%	2.1%	3,810	18,694
Computer User Support Specialists	11,745	1.92	\$69,500	1.9%	0.7%	2,748	11,896
Computer Systems Analysts	11,192	2.56	\$122,300	-1.9%	0.9%	512	2,109
Information Security Analysts	8,393	5.90	\$140,400	5.7%	2.8%	2,206	9,585
Computer Occupations, All Other	7,607	2.07	\$113,500	2.5%	0.7%	4,196	17,816
Network and Computer Systems Administrators	6,770	2.40	\$117,300	-1.7%	0.3%	4,469	18,929
Computer Network Architects	4,550	3.00	\$146,600	1.9%	0.3%	171	766
Software Quality Assurance Analysts and Testers	4,519	2.67	\$116,400	2.0%	1.6%	655	2,368
Computer Network Support Specialists	3,164	2.16	\$89,400	-0.4%	0.7%	3	16
Database Architects	3,016	5.79	\$181,300	2.9%	0.7%	176	590
Computer Programmers	2,496	2.04	\$125,200	-13.9%	-1.4%	43	192
Web Developers	2,250	2.73	\$108,000	5.1%	1.4%	396	1,675
Database Administrators	2,247	3.19	\$107,300	-1.1%	0.5%	343	1,512
Web and Digital Interface Designers	1,966	1.99	\$92,300	5.7%	1.3%	131	499
Computer and Information Research Scientists	1,239	4.59	\$149,500	0.5%	1.6%	801	2,991

Source: JobsEq 1: As of Nov. 21, 2023

Credentialling remains a barrier to filling open positions. Because of this, Region 7 continues to propose projects that facilitate certification attainment.

Certification Required	Openings in October 2023	Cluster
Microsoft Office	12,067	Computer Software
Python	5,305	Computer Software
Structured Query Language	4,489	Computer Software
Computer Programming/Coding	4,223	Computer Software

Region 7 targeted clusters correspond to the top job openings in the area.

Program Name	Openings in October 2023	Cluster
Computer Science	6,879	Computer Software
Engineering	5,025	Engineering
	1,872	Computer Software/Emerging
Information Technology		Technologies/Cybersecurity
Finance	1,822	Finance
Technical	1,776	Computer Software/Emerging Technologies
Science	1,338	Life Science/Health Sciences

The top Region 7 job openings by certification are all related to Cybersecurity and Technology. The following is data from October 2023.

Certification	Job Openings
Certified Information Systems Security Professional (CISSP)	1,133
Cisco Certified Network Associate	661
CompTIA Security+ CE (Continuing Education) Certification	575
Systems Security Certified Practitioner (SSCP)	414
Certified Information Systems Auditor (CISA)	406
GIAC Security Essentials Certification (GSEC)	341
Certified Information Security Manager (CISM)	328
Cisco Certified Network Professional (CCNP)	324
CompTIA Advanced Security Practitioner (CASP)	259

# Priority Clusters: Skills Gap Analysis

## **Computer Software**

#### **Strengths**

Institutions such as George Mason University and Northern Virginia Community College are responsible for many of these graduates, as associate and bachelor's degrees each accounted for about 35 percent of the total number of degrees. Around 45 percent of Virginia's graduate or professional degrees in computer and information sciences were completed in Northern Virginia, as were 35 percent of its computer and information sciences associate and bachelor's degrees.

### <u>Challenges</u>

Degree completions in computer and information sciences fields from the region's post-secondary institutions have declined in recent years with a particularly severe drop in the number of graduate and professional degrees awarded.

### **Opportunities**

Although the number of degree completions in computer and information sciences field have declined, associate degree attainment has steadily increased over the past decade. It suggests an opportunity for more specialized training for entry-level occupations in these fields. Region 7's Talent Pathways Initiative (TPI) project will provide additional insight in November 2024.

## Cybersecurity

#### <u>Strengths</u>

A review of local economic development strategies reveals that cybersecurity jobs are targeted by most or all major localities. The partnership between the Commonwealth Cyber Initiative and GO Virginia's Region 7 is helping to build a skilled cyber workforce to address the more than 60,000 open cybersecurity jobs in Northern Virginia and throughout the state. Challenges

Academia and industry must adapt rapidly to new technologies and training techniques to enhance student skills and workforce productivity to address the ever-changing cyber landscape.

#### Opportunities

Train exiting military for in-demand cybersecurity jobs or help small and medium-sized enterprises grow and diversify their markets.

Partnering with Commonwealth Cyber Initiative CCI, an unprecedented consortium of 41 Virginia universities and colleges, with more than 320 researchers gives us the opportunity to expand Region 7's Cyber security talent pipeline.

### **Emerging Technologies**

#### Strengths

Region 7 has laid a strong foundation investing \$5.8 million in Nanotechnology in 2022 and 2023. With the Federal government investing billions of dollars in Chips Act funding, region 7 has the opportunity to expand capacity.

#### Challenges

To achieve an economic and wage growth rate that is closer to peer technology regions, and to serve its largest local customer, it is essential that Region 7 ensure that product-based technology businesses, and the entrepreneurs that start them, have ready access to the resources, facilities, and expertise necessary to grow their business and expand their commercial customer base. Even with this high concentration of jobs, a shift share analysis reveals that Region 7 is losing some of its edge. The sector should have added 5,000 jobs more than it did, if the local tech sector had added jobs as fast as national tech sector.

#### Opportunities

Emerging Technologies focuses on innovations in nano technologies, quantum computing, and material sciences across a wide range of industry sectors. The Emerging Technology sector in Region 7 shows historical competitive advantage and is clearly an export-based sector (meaning that Northern Virginia has three times more jobs than would be expected for an economy the region's size). We selected these sectors based on these factors, but the final decision about where to focus is subject to additional input from Region 7 Council leaders.

#### **Life Sciences**

#### **Strengths**

Learnings from a recent ECB grant identified one hundred seventy-seven (177) representative Life science companies in Northern Virginia. Organizations were sorted by locality from data collected by 1) the Northern Virginia BioHub, 2) Virginia Bio-Connect, and 2) running reports with companies listed by North American Industry Classification System (NAICS) codes. Each company added to the list was reviewed for relevance to the life science sector. The list of companies has been shared with economic development leaders across GO VA Region 7 to fill missing gaps. Northern Virginia's life science ecosystem is represented by the following fields: pharmaceutical, biotech, medical devices, regulatory, digital health and innovation, forensics, medical technology, and contract research organizations. It is also represented by five major hospital systems who hire life science professionals including Sentara, Inova, HCA, Kaiser, and UVA Health.

#### Challenges

Currently, there are shortages in Virginia in almost all health-related vocations and professions and shortages are expected to worsen over time due to a variety of factors, including the impact of the COVID pandemic. Even less is known about the supply of life sciences workers as part of the Health Science workforce. Anecdotal evidence indicates supply is not keeping up with community demand for an adequately sized workforce.

### Opportunities

There are both supply deficits and surpluses projected for Life Science Occupations in Region 7. Occupational Health and Safety Specialists, Medical Scientist (Except Epidemiologists) and Occupational Health and Safety Technicians are among the most in-demand.

# **Project Development**

The Region 7 Council will use this updated document to shape project development in the four (4) main clusters. The Council expects several future project proposals will be driven in part from the recommendations published as part of several active planning grants. Additionally, this report will be shared and promoted with regional stakeholders and used as the first touch point for project proposal development.

The projects that are ultimately funded will be determined by the quality of the proposals and the extent to which they align with the regional priorities.

The development of a pipeline of local and regional workers trained in digital and workplace skills is a requirement if Northern Virginia is to remain economically competitive in key industry growth sectors like computer software/services, cybersecurity, and other emerging technologies identified in our economic development strategies. Northern Virginia is facing unprecedented challenges in attracting workers with digital technology skills and therefore a key pathway to economic success is to grow our own pool of talent. The work of the Region 7

Council along with an Advisory Committee from Region 7 is critical to identifying and implementing solutions while completing the Talent Pathways Initiative (TPI) project.

This proposed project will address long-standing regional needs, such as an assessment of trainings programs already available. The information will help all jurisdictions, and the Region 7 Council, in better communicating to our residents that there are programs available. Equally important, it will identify training resource gaps. A parallel benefit to this project is connecting project staff with key employers located in our community, as well as educators in our schools.

Our need for better understanding employer demand for digital and workplace skills is critical for our current and future economic performance in Northern Virginia.

See Appendix A for a list of projects.

# **Goals and Strategies**

Target	Goals	Strategies	Outcomes/Imp	Strategic Partners	Active Projects
Industry	Couls	Strategies	act Measures	ou at egic i ai ai ei	Addressing
					Opportunities
Computer software	Strengthen Northern Virginia's technology workforce through talent development and workforce attraction	Enhance the Talent Pipeline; Strengthen and expand non- degree programs (e.g., certifications and credentials) that allow workers to enter and advance in technology careers	2 Tech Talent Pipeline projects trained over 500 students, created 195 jobs, and upskilled 92 employees. The Computer Science K-12 Pipeline project trained over 36k students	The Center for Regional Economic Competitiveness  Public school systems, particularly Career and Technical Education Programs; Regional Workforce Boards; Colleges/universities (e.g., George Mason University, Northern Virginia Community College, Virginia Tech, Marymount, UVA, etc.)	DEEP IET; TPI; Accelerate Investors
Cybersecurity		Enhance the Talent Pipeline	VCSA trained 99 students, awarded 66 certifications, and filled 48 jobs.	Women's Society of Cyberjutsu (WSC); The Cyber Guild; The Center for Regional Economic Competitiveness	Virginia CyberSkills Academy; CyberGuild; TPI
Emerging Technologies	Accelerate the development of high growth potential technology product companies	Enhance the Talent Pipeline; Establish and expand internships, apprenticeships and other work- based learning opportunities that prepare workers and provide them with experience in technology careers	The Technology Workforce Initiative filled 44 jobs, trained 92 students, and awarded 83 credentials	GMU; The Center for Regional Economic Competitiveness; VT	Nano Imagine; TPI; VAST
Life Sciences			Bioscience Center Project created 50 jobs and constructed 30,000 square feet of a Class A BSL 2 research facility	GMU	Lifesciences Workforce Readiness
Consulting Services	Address key challenges in economic development and innovation eco-systems		·		ICA; REI?

Maintaining and enhancing Region 7's competitive position for attracting growth and investment in these key regional sectors will require collaborative action and innovative approaches. The persistent challenges of skilled labor availability, taking advantage of existing regional competitive assets, and supporting creative solutions to market weaknesses drives the selection of priority goals and project selection for the Region 7 Council including:

- 1. Strengthening Northern Virginia's technology workforce through talent development and workforce attraction,
- 2. Accelerating the development of high growth potential technology product companies,
- **3.** Enhancing the regional innovation eco-system through industry change and management enhancement, technology transfer and intellectual property commercialization, and enhancing funding opportunities in the entrepreneurial sector,
- **4.** Address issues throughout the Region 7 economy and across all priority goals to expand high value opportunities that enhance economic equity and opportunity.
- **5.** Identify and, where possible, attract project proposals that address key challenges in the Region 7 economic development and innovation eco-systems, including industries that support targeted sectors.

These consensus goals will inform the regional council's decision-making process, but the council will also consider any high impact project that contributes to the overarching GO Virginia goal of achieving private-sector driven job growth in high-wage sectors through interjurisdictional cooperation. Given the changing dynamics of work location (work from home), especially if hybrid work plans dominate workplace agreements, the council will welcome project proposals that consider workforce issues in neighboring GO-Virginia regions that contribute economic benefits to the Region 7 economy.

#### Talent Pathway Initiative (TPI) Overview, funded as of November 2023

Center for Regional Economic Competitiveness CREC, in conjunction with a research advisory group selected by the Region 7 Council, will conduct qualitative research to define the needs and challenges of large, moderate, and small employers for three critical sectors:

- (1) Computer Software (including computer services);
- (2) Cybersecurity; and
- (3) Emerging technologies.

These industry clusters were selected because they reflect priority goals stated in Region 7's GO VA Growth and Diversification Plan (2021). They also require special attention because they have a diminishing competitive advantage or provide a significant new opportunity for very high value-added growth.

Table 1: Leading Metrics Used In Selecting Industries for the TPI Program

Sector	2010 Jobs	2023 Jobs	LQ 2023	Competitive Effect	Notes
Computer Services	113,812	135,486	5.6	-63,152	LQ2010 = 8.4
Cybersecurity	43,637	45,006	4.1		Avg wage = \$125,964
Emerging Technologies	16,012	16,004	3.0	-5,086	Innovation driver

Source: Region 7 G&D Plan 2021, Lightcast

The focus on these three key sectors – computer services, cybersecurity, and emerging technologies – in a way that will guide policymaking and influence curricula/program design at Northern Virginia education and training institutions. The report will be provided in October 2024.

# **Implementation**

The regional council will undertake several activities to advance it efforts and achieve its goals. These activities will include:

**Ongoing outreach:** The regional council will continuously work to build awareness of the region's GO Virginia efforts. Regional council members and representatives will ensure that key stakeholders' groups (e.g., local elected officials, city and county staff, business groups, economic and workforce development organizations, etc.) throughout the region are aware of GO Virginia opportunities.

Setting procedures for effective evaluation: Information gathering will be vital to the plan's implementation. It will be important for the regional council to track the outputs of its investments (e.g., number of workers trained, companies served), but also the outcomes of these efforts (e.g., growth of key clusters, rising wages) and how those outcomes demonstrate that the region is achieving its stated goals. The Economic Growth and Diversification Plan identifies some potential performance metrics and expected outcomes for each of the strategies. However, a key consideration when reviewing the proposals will be the proposer's ability to identify and describe how they will track outcome and output measures. It will be particularly important for them to demonstrate their ability to collect information on core measures such as jobs created/wage levels or increased sales because these are the measures that will quantify the broader economic impacts of the GO Virginia investments.

**Promoting successful investments:** The region council will also make dedicated efforts to promote the impact of its GO Virginia investments. The Region 7 Council will actively promote its accomplishments through presentations to regional groups and traditional and social media. The council will produce an annual report that describes the economic impacts of the regional council's investments and provides narratives to put a face on the data.

# Update Process and Future Planning/G&D Plan Efforts

The Go Northern Virginia support team facilitated the update and worked with the Northern Virginia Regional Commission to provide research support. The team also incorporated reports on the region from JobsEQ. The Region 7 Council had the opportunity to reflect on the current plan. They were provided updates, evaluated the changes, reviewed the goals, and discussed current and future project development.

For future updates we will continue to engage stakeholders to validate and enhance this report. We will also solicit feedback from business leaders including Chambers, the Northern Virginia Technology Council (NVTC) and from Economic Development leaders in the region.

# Appendix A: 2003 Openings by Occupations

SOC	Occupation	Active Job Ads
11-3021.00	Computer and Information Systems Managers	5,763
15-1244.00	Network and Computer Systems Administrators	4,212
15-1252.00	Software Developers	3,201
15-1232.00	Computer User Support Specialists	2,939
13-1111.00	Management Analysts	2,695
15-1299.08	Computer Systems Engineers/Architects	2,562
15-1212.00	Information Security Analysts	2,335
13-1199.00	Business Operations Specialists, All Other	2,228
11-9041.00	Architectural and Engineering Managers	1,579
13-2011.00	Accountants and Auditors	1,145
15-1299.09	Information Technology Project Managers	994
33-3021.06	Intelligence Analysts	965
13-1071.00	Human Resources Specialists	893
15-2031.00	Operations Research Analysts	854
15-1221.00	Computer and Information Research Scientists	834
11-3031.00	Financial Managers	822
17-2072.00	Electronics Engineers, Except Computer	816
43-4051.00	Customer Service Representatives	785
41-3031.00	Securities, Commodities, and Financial Services Sales Agents	746
13-2051.00	Financial and Investment Analysts	732
11-2021.00	Marketing Managers	689
13-1151.00	Training and Development Specialists	668
27-3031.00	Public Relations Specialists	661
15-1253.00	Software Quality Assurance Analysts and Testers	659
15-1211.00	Computer Systems Analysts	525
11-1021.00	General and Operations Managers	517
17-2071.00	Electrical Engineers	462
11-1011.00	Chief Executives	439
27-3042.00	Technical Writers	436
15-1254.00	Web Developers	404
15-1242.00	Database Administrators	396
43-3031.00	Bookkeeping, Accounting, and Auditing Clerks	374
17-2051.00	Civil Engineers	233

# Appendix B: Region 7 Projects

## **Project Pipeline**

As of October 2023

Project Name	Subgrantee	Investment Strategy
Biomedical Workforce Development	Future Kings	Workforce Development
ICAP Advisory Board Program	George Mason – ICAP/SBDC	Entrepreneurship

## **Awarded Projects**

Since inception, Region 7 has been awarded 27 projects. Bolded projects are active as of October 2023.

Project Name	Subgrantee	Investment Strategy
Accelerate 2022	Esther Lee	Entrepreneurship
Roadmap for Reskilling Workers for Technology Employment	George Mason University/ Marymount University	Workforce Development
Pivoting Technology Businesses for Post COVID-19 Environment	George Mason University/ Marymount University	Fast Access
Back to Work Website and Information and Innovation Series Program	Northern VA Chamber of Commerce	Fast Access
Steps to Safely Reopen the Economy	George Mason University	Fast Access
Innovation Center Roadmap	NOVA Labs	Entrepreneurship
Future Kings	Future King, LLC	Workforce Development
Virginia SBDC Recovery Effort	George Mason University	Entrepreneurship
Bioscience Center	Holladay Properties and PW Economic Development	Site Development
Innovation Forward	Northern Virginia Economic Development Alliance	Capacity Building
Community Medi-corps Program (Medi-corps)	George Washington University	Workforce Development
K-12 Computer Science Pipeline	Loudoun Education Foundation	Workforce Development
Tech Set	Marymount University	Workforce Development

Virginia Cyber Skills Academies	Women's Society of Cyberjutsu	Workforce Development
DPI Foreign Investment	Northern Virginia Regional Commission	Cluster Scale-up
Expansion of ICAP Mentor Network	' George Mason University	
Cyberguild	The Cyberguild	Workforce Development
REI Convene and Collaborate	George Mason University	Entrepreneurship
GMU Life Sciences Workforce Readiness	George Mason University	Workforce Development
DEEP IET	Northern VA Community College	Workforce Development
Smart Region Works	Smart City Works	Cluster Scale-up
Nano-IMAGINE	George Mason University	Cluster Scale-up
Accelerate 2023/2024 Investors	George Mason University	Entrepreneurship
VAST/VNNI	Virginia Tech	Cluster Scale-up
TPI	Center for Regional Economic Competitiveness/GMU	ТРІ