GO VA Region 1

Summary of IT Working Group #2

March 18, 2019

Agenda:

1. Introductions
2. WG1 Review: The Status Quo
3. The Charrette-like Approach
4. IT in GO VA 1 Objectives:
    o Big Ideas
    o Build a Strawman
    o Focus on Outcomes & Results
        ▪ Jobs
        ▪ Wages

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1. Introductions
2. WG1 Review: The Status Quo
    A. Data Review – participants were given a one-page summary that included updated information on:
        • Number of IT workers in Region 1 and their average annual wage
        • Top occupations in Region 1 by employment (1 – computer user support specialists; 2 – computer systems analysts; 3 – software developers, applications)
        • Average annual IT wages, with cost-of-living index (CoLI), and CoLI-adjusted wages for Regions 1-9
        • Top 8 IT industries in Region 1 (1 – computer systems design and related services; 2 – other information services; 3 – management of companies and enterprises)
        • Graphs included a year-over-year percent change of IT industry employment; year-over-year percent change of IT industry establishment; and IT industry average wages over the period of 2002-2018
    B. Summary of Success Stories in Region 1
        a. **CGI**. 350 workers, mostly in IT. Kirk Lortz offered a clarification of what the company offered.
        b. **Bristol Virginia Public Schools**. Offer dual enrollment in cybersecurity, a hydroponics course, cybersecurity in agriculture, and testing for IT credentials.
        c. **United Way**. Recently implemented a survey to determine what credentials are required for IT jobs.
    C. What's Not Working in Region 1
        • Workforce/jobs
        • IT and cybersecurity education
        • Experience
        • Regional collaboration (one voice)
    D. SOAR Processes for the 5 focus areas (abridged list)
        • Infrastructure and broadband is at an acceptable level
        • Education opportunities are plentiful – our area has several 4-year universities, nearby community colleges, and several colleges offering in-state tuition
        • Group felt like the current workforce is loyal and flexible
        • Region 1 is a beautiful area to live and work

- Upgrading the wireless network and improving education and training – ongoing goal. This includes being more responsive to the education and training needs. Mentoring.
- One aspiration of the group was that Region 1 would import workers rather than export – "training our workers to leave." Time for a new success story.
- One of the most positive attractions of Region 1: Cost-of-living adjusted wages (buying power) is attractive to workers. Profitability to businesses is an excellent selling point to businesses considering southwest Virginia.

3. The Charrette-like Approach
    - 11 to 13 Topical Areas: align projects to funding requirements
    - Project types: workforce, sites, startups
    - Post-it notes: for grouping ideas into families

4. IT in GO VA 1 Objectives

Big Ideas (The following list is verbatim from the post-it notes; ideas were grouped into 3 families of workforce, startups, and sites.)

<u>**Workforce**</u>:

Trades pipeline.

Artificial Intelligence curriculum. Institute in Northern Virginia for Southwest Virginia training in IT. Professional development of program.

Raise awareness of IT careers earlier in the education cycle.

Working in my southwest Virginia training.

Intentional track for C.S. and S.E. K-12 programs, activities, mentors.

UVA leadership program. Develop our voice/one vision.

Add programming classes to high school curriculum.

Incentives to hire college IT students.

Programming must become a core part of K-12 curriculum.

Southwest Virginia is "all in" on programming, which underpins multiple industries. Work at all levels – elementary, high school, community college, 4-year institutions.

Across IT group employers invest into specific IGNITE united Way programs from many companies.

<u>**Startups**</u>:

Developing experience locally. Cohabitate existing IT pros. Start-up Firms. Oxbow Center.

IT as a project.

<u>**Sites**</u>:

Expand Oxbow to Innovation, to encompass all IT, manufacturing, retail, etc.

IT Institute. Congeal mid-level Region One IT professionals across all companies into Oxbow.

Develop co-working site – Oxbow infrastructure to be best in state. This includes infrastructure, redundancy, virtual reality, training-specific IT.

Other sound bites (these are not post-it note ideas. These were written on various flip chart pages throughout the meeting.)

Why IT?

1. The industry is resilient
2. It is not a single-need workforce
3. Investment in network already made

Issues with Start-Ups

1. Stealing employees
2. 6-year window (5G connection)
3. Retool people

Revenue sharing is the only way to get this done—as an example of collective impact and signed MOUs.

Software testing leading to career pathways—an example within CGI.

T-model (Business acumen/Technology skills)—an example introduced by Leslie and affirmed by Volvo.

Metrics for investment—what is the ROI from investing in IT education?

COLI? Network 3x Costs LAX – Northup Grumman emphasized the REAL costs IT is in the investments in the networks.

What pipeline? →portfolio → high school—lack of sufficient exposure to IT in elementary and high school.

Skin in the game!—What are Go VA 1 area businesses willing to to do toward about the lack of IT workers?

CGI → Russell County C++ training—part of the status quo; aka the current state.

COLI is a key distinguisher—Go VA 1 Region has a lower cost of living than the rest of the state in IT occupations.

Gaps in Career Pathways—not clearly defined due to the the variation between curriculum.

Cyber definition—it is not coding. Two different things.

Education → Experience → Exposure—Northrup Grumman's "must haves" when hiring new employees.

FTE ≠ Impact—Full time equivalent workers can't take night classes and have a harder time upskilling into coding.

Electricians –certified –a connection between electricians and networking?

HVAC –missing skill sets when working to servicie data centers.

UL certified – Aerospace/Defense—a type of wiring certification?

Raise IT awareness in high school—manage everyone's expectations.

STEM: voice of employers—continue to support these initiatives.

IT itself is resilient—technology is always evolving.

Problem solving/critical thinking—essential skills needed.

No critical mass – how?—not enough graduates from the education pipeline. Must rethink importing our workforce.

Data Review

2,041 IT workers in GO VA Region 1, making an average of $64,700 per year

GO VA 1	Current – Four Quarters Ending in 2018Q4			Past Five Years	10-Year Forecast	
	Employment	Average Annual Wage (2017)	Unemployment Rate	Employment	Total New Demand	Average Annual Growth Rate
IT Occupations	2,041	$64,700	2.9%	-1.1%	1,358	0.1%
Total - All Occupations	139,075	$38,200	n/a	-0.6%	141,351	-0.6%

Source: Chmura's JobsEQ

Top occupations include computer user support, system analysts, software developers, and systems administrators

Occupation	Employment Four Quarters Ending in 2018Q4		Average Annual Wage 2017		Employment Change Past Five Years	
	GO VA 1	Labor Shed	GO VA 1	Labor Shed	GO VA 1	Labor Shed
Computer User Support Specialists	371	1,636	$40,500	$43,700	-0.5%	0.8%
Computer Systems Analysts	358	1,529	$70,600	$76,100	-1.3%	1.1%
Software Developers, Applications	252	1,351	$76,200	$81,900	-0.9%	1.3%
Network and Computer Systems Administrators	221	1,097	$65,400	$71,000	-1.3%	0.2%
Software Developers, Systems Software	167	695	$84,500	$90,800	-2.1%	0.3%
Computer Occupations, All Other	144	566	$65,800	$75,900	-1.1%	0.2%
Computer Network Support Specialists	108	552	$49,100	$55,800	-2.1%	-0.6%
Computer Programmers	73	598	$65,400	$84,800	-0.5%	1.8%
IT Occupations	2,041	9,804	$64,700	$71,200	-1.1%	0.6%
Total - All Occupations	139,075	566,058	$38,200	$41,800	-0.6%	0.1%

Source: Chmura's JobsEQ

Low cost of living in Region 1 is attractive to workers
Low average wage is attractive to employers

GO VA Region	IT Average Annual Wage	Cost of Living (CoLI)	CoLI-Adjusted IT Avg Wage
Region 1	$64,700	84.4	$76,659
Region 2	$76,900	87.9	$87,486
Region 3	$69,500	85.8	$81,002
Region 4	$87,000	95.0	$91,579
Region 5	$83,900	96.6	$86,853
Region 6	$87,600	127.9	$68,491
Region 7	$105,400	163.7	$64,386
Region 8	$74,200	108.6	$68,324
Region 9	$87,800	120.7	$72,742
Virginia	$99,200	116.6	$85,077

Source: Chmura's JobsEQ

IT workers are employed across many industries in Region 1

Industry	Current Employment	Average Annual Wages
Computer Systems Design and Related Services	428	$69,500
Other Information Services	171	$76,900
Management of Companies and Enterprises	156	$67,200
Business Support Services	81	$48,500
Depository Credit Intermediation	80	$68,700
Justice, Public Order, and Safety Activities	68	$64,700
Wired and Wireless Telecommunications Carriers	55	$66,500

Source: Chmura's JobsEQ

Discussion Topics WG2

IT-program gaps in the region?

IT fundable project types?

IT categories: workforce, sites, and startups?

- Infrastructure
- Education & Training
- Regional Labor Market
- Quality of Place
- Marketing & Perception

IT Industry Trends

IT industry employment has recently been trending upwards: up to **865 employed workers** as of 2018Q4.

IT Industry Employment Percent Change, Year-Over-Year

Legend: GO Virginia Region 1 — GO Virginia Region 1 Labor Shed — Virginia — - - USA
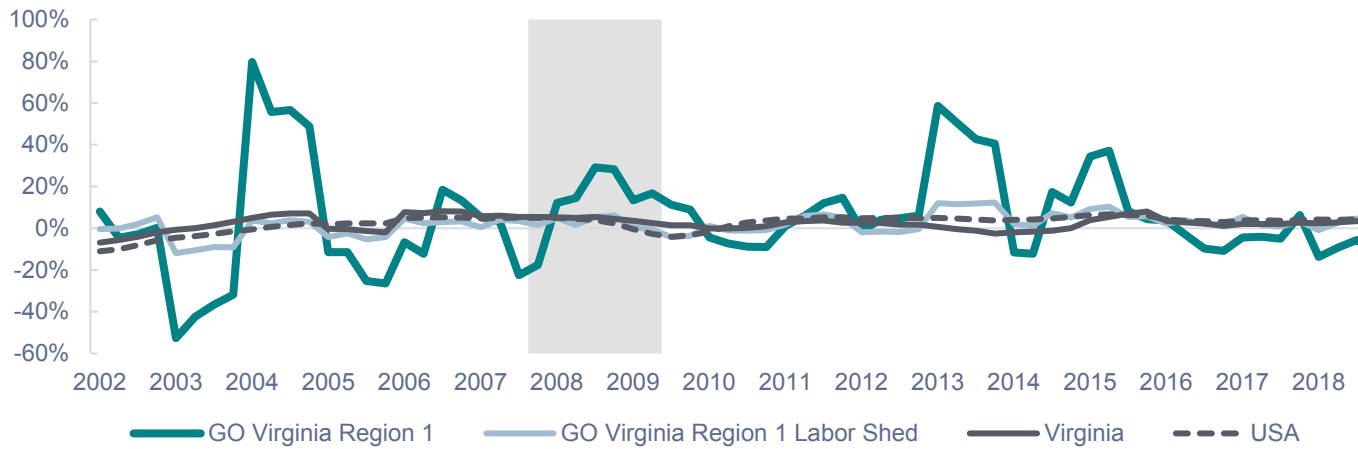
Region 1 has had between 60 and 74 IT establishments since 2012. As of 2018Q2, there are **62 establishments**.

IT Industry Establishment Percent Change, Year-Over-Year

Legend: GO Virginia Region 1 — GO Virginia Region 1 Labor Shed — Virginia — - - USA
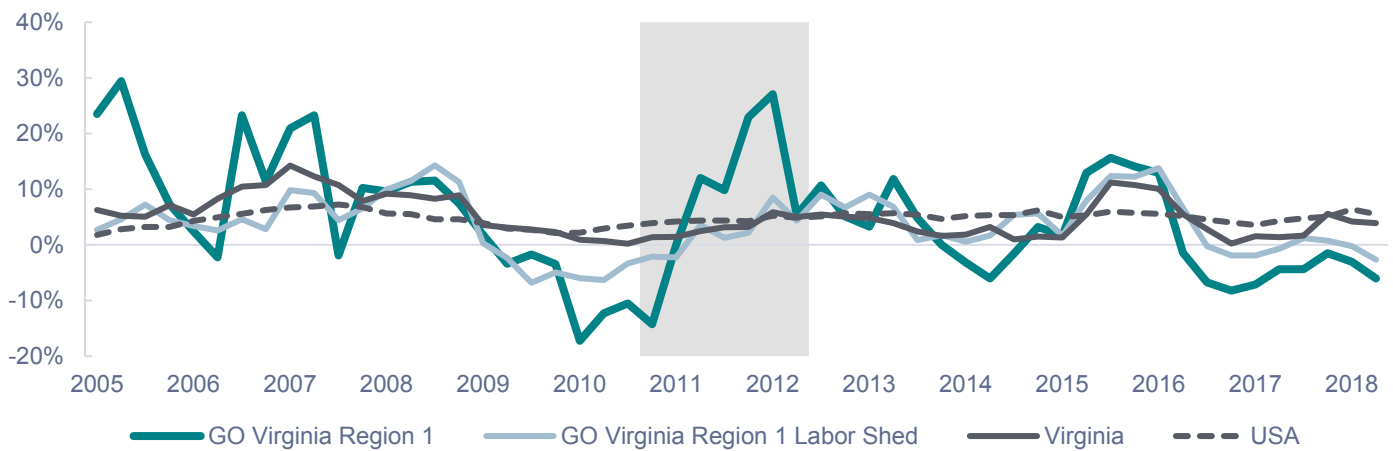
Wage growth in the IT industry has been positive: up to **$63,776** as of 2018Q4.

IT Industry Average Wage

Legend: GO Virginia Region 1 — GO Virginia Region 1 Labor Shed — Virginia — - - USA

Source: Chmura's JobsEQ