



New River Mount Rogers Quarterly Workforce Report (2016 Q4)



Quarterly Workforce Report 2016 Q4

Yearly Review

Welcome to the 2016 fourth quarter workforce report produced by the Virginia Tech Office of Economic Development on behalf of the New River Mount Rogers Workforce Development Board (WDB). This region comprises the New River Valley Regional Commission and the Mount Rogers Planning Districts, including the counties of Bland, Carroll, Floyd, Giles, Grayson, Montgomery, Pulaski, Smyth, Washington, Wythe and the independent cities of Bristol, Galax and Radford. These quarterly reports analyze and present regional labor supply and demand data to inform the public of the evolving workforce landscape. Note the data presented in this report is the most up-to-date data available in December 2016.

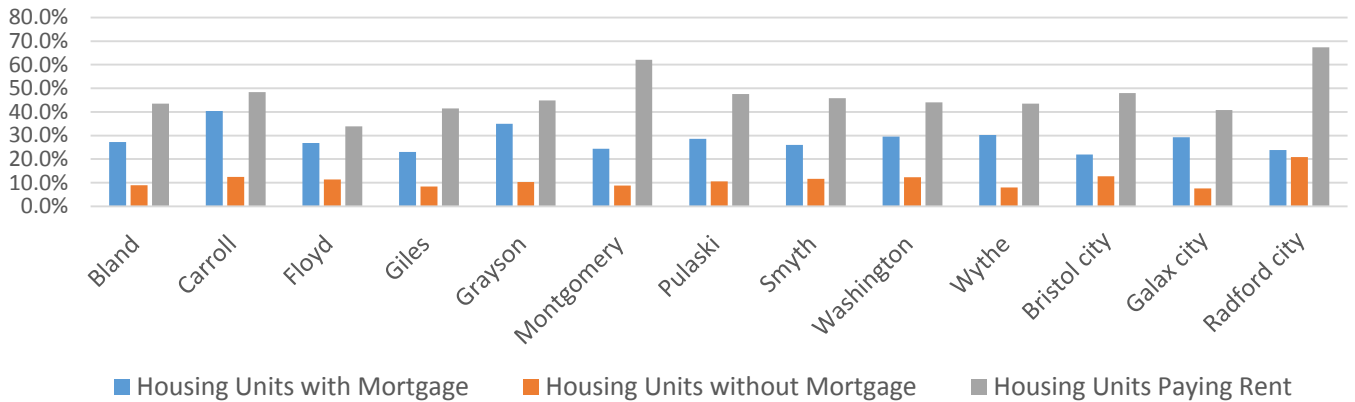
This year, each quarterly workforce report has provided data characterizing our region's industry while focusing on one top industry, its trends and occupations. Industry themes for quarters one through three were Manufacturing, Tourism and Healthcare respectively. For this year's final quarterly report, we reviewed these industries by highlighting examples of promising occupations and illustrating possible crosswalks for those already in the industry who wish to transition into these occupations.

In sum, this report...

- examines the region's quality of life using select indicators such as housing affordability, healthcare access and health outcomes, as well as internet access;
- explores the potential transition between different occupations in Manufacturing and Healthcare sectors;
- summarizes sources that provide professional training, business counseling, and funding for establishing and expanding tourism-related small businesses in the area.



Percentage of Housing Units with Monthly Housing Expenditure Exceeding 30% of Monthly Income



Source: U.S. Census American Community Survey, 2014 Five-Years Estimate

Here, we explore two aspects of quality of life: Percent of monthly income dedicated to housing expenses and multiple healthcare indicators. First, a household is considered “burdened” if 30% or more of its monthly income is devoted to housing expenses including rent, mortgage and utilities. In general, a higher percent of renters in Southwest VA are more burdened than state renters, but regional homeowners are less burdened compared to state averages, 31.6% (with mortgage) and 12% (without mortgage).

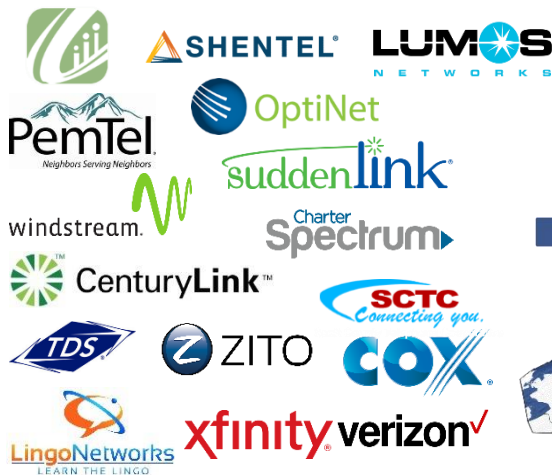
Second, access to health insurance and presence of healthcare providers in the area can be contributors to regional health, as measured by average annual number of reported physical and mental unhealthy days. With a few exceptions, the area has a higher percentage of uninsured people, lower ratios of primary and mental health care providers, and more unhealthy days reported compared with the Commonwealth of Virginia and areas with the best performance in the U.S.

Top Health Indicators by County

	Percentage of People Uninsured	Ratio of Population to Primary Care Physicians	Ratio of Population to Mental Health Care Providers	Physically Unhealthy Days	Mentally Unhealthy Days
Montgomery	15%	1,440:1	562:1	3.8	3.5
Pulaski	15%	1,730:1	2860:1	3.6	3.3
Floyd	18%	3,110:1	1731:1	3.4	3.2
Giles	15%	1,690:1	16815:1	3.3	3.3
Radford City	17%	1,560:1	706:1	4.7	4.2
Bland	14%	-	6625:1	3.2	3.1
Carroll	19%	1,000:1	3291:1	3.9	3.6
Grayson	18%	3,030:1	15093:1	4	3.7
Smyth	15%	1,860:1	853:1	3.9	3.7
Washington	15%	1,570:1	750:1	3.4	3.3
Wythe	16%	1,830:1	520:1	3.8	3.5
Bristol City	15%	2,480:1	1227:1	4	3.7
Galax City	18%	-	270:1	4.2	3.8
Virginia	14%	1,330:1	680:1	3.5	3.3
Top U.S. Performers	11%	1,040:1	370:1	2.9	2.8

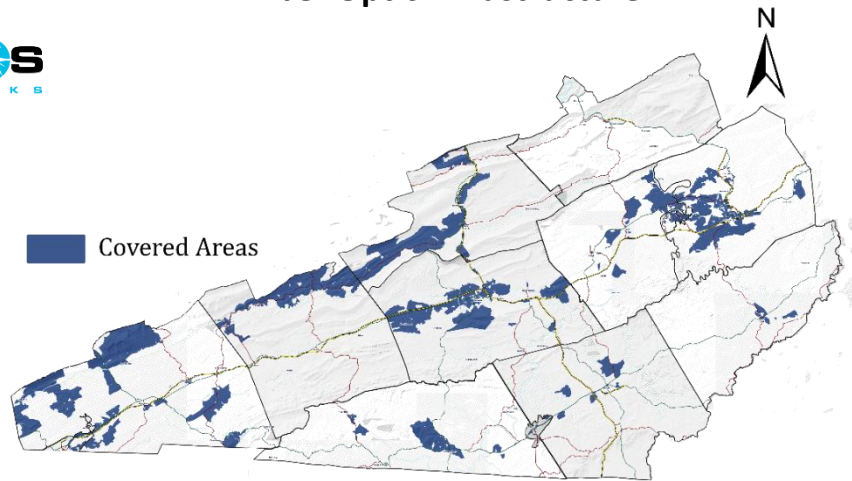
Source: County Health Rankings & Roadmaps, Robert Wood Johnson Foundation Program

Internet Service Providers



Source: Broadband Now

Fiber Optic Infrastructure



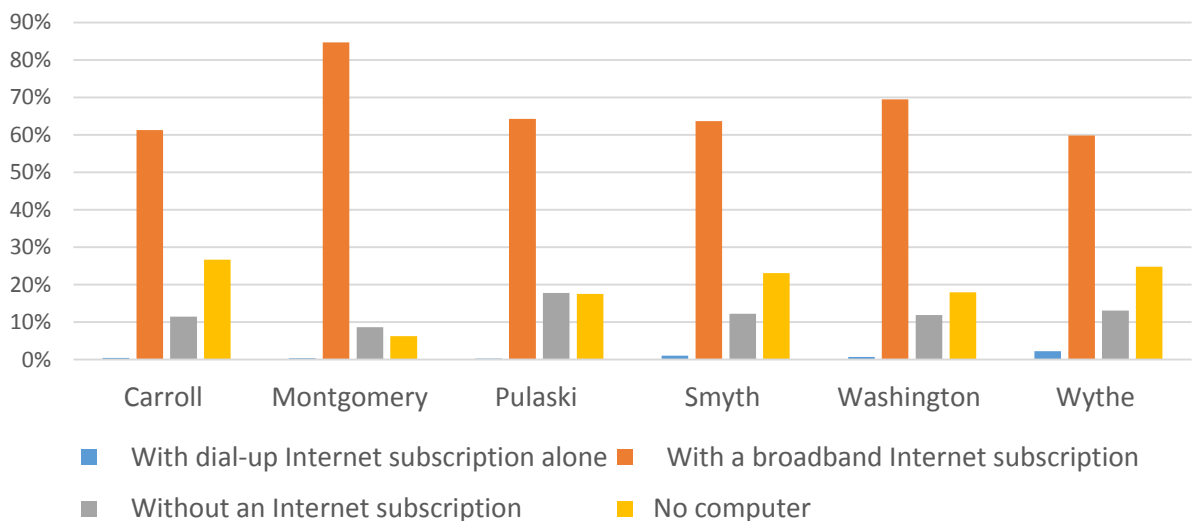
Source: Virginia Broadband Availability, CGIT, Virginia Tech

Another quality of life indicator is access to internet services. Availability of broadband infrastructure, service providers, as well as service costs are the main factors that affect internet access. The area has extensive DSL infrastructure. But less than 5% of the region is covered by fiber optic cable, which provides more high speed internet (see above). A handful of companies provide different types of internet services: fiber optic, DSL, and cable internet. Monthly costs vary, and they do not account for up-front connection costs, such as when additional cable must be placed to connect households to existing internet infrastructure.

Despite the scarcity of fiber optic infrastructure, over 60% of the households in each jurisdiction* have subscriptions to some type of broadband internet. Percentage of households without computer to access internet with are lower compared with neighboring jurisdictions however.

**Only a select few jurisdictions had internet subscription data available.*

Internet Subscription by County



Source: U.S. Census American Community Survey, 2014 Five-Years Estimate

Source: EMI Analyst. 2016.3 Class of Worker. QCEW, and U.S Bureau of Labor Statistics; O*NET Online

Textile Machine Setters, Operators, and Tenders

Similar skills to a Machinist

- Operation Monitoring
- Operation & Control
- Active Listening
- Critical Thinking
- Manual Dexterity
- Multi-limb Coordination
- Control Precision

\$13/hr

2%
Decline

Annual
Opening 6

Mathematics
Mechanical Design
Reading Comprehension
Production & Processing
Controlling Machines & Processes
Making Decisions & Solving Problems

Skills Gap

Machinist

NIMS Level One Certification
Credential through NRCC

\$19.49/hr

9%-13%
Projected
Growth-
Faster than
Average

Team Assemblers

Similar skills to a Machinist

- Coordination
- Monitoring
- Near Vision
- Oral Comprehension
- Active Listening
- Critical Thinking
- Manual Dexterity
- Finger Dexterity
- Problem Sensitivity

Annual
Opening 85

\$14/hr

No
Growth

Mathematics
Mechanical
Production & Processing
Design Operation Monitoring
Inductive Reasoning
Operation & Control
Reading Comprehension

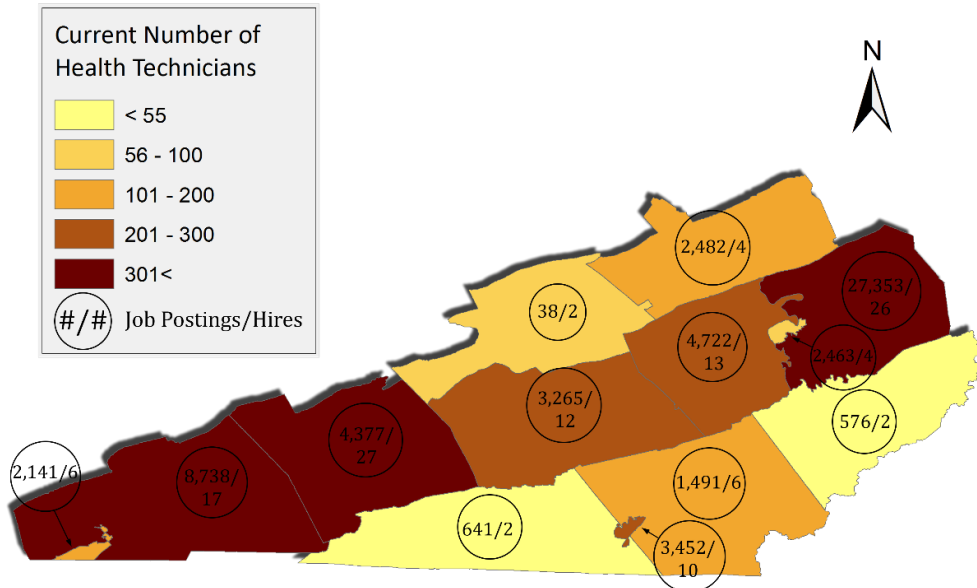
Skills Gap

Source: O*Net Online; EMSI (2016-2021)

Team Assemblers and Textile Machine Setters, Operators, and Tenders have many similar skillsets to Machinists, but would need some training to bridge the skill gaps. Some of the more common ways of obtaining the appropriate Machinist skills are through certification programs, apprenticeship programs, and on-the-job training. Regional community colleges offer programs including:

- New River Community College – A two-year associates in machine technology and NIMS Machining Level 1
- Wytheville Community College – A two-year associates degree in mechanical technology
- Virginia Highlands Community College – A MSI Level 1 professional certificate for Manufacturing Technicians and a Career Studies Certificate in Mechatronics.

Current Employment and Job Demand for Health Technicians



Source: Emsi Analyst. 2016.4. Class of Worker.QCEW

Daily routines of healthcare technicians vary according to specialization, such as diagnostic imaging, surgical assisting, or laboratory testing. In order to become a diagnostic imaging or radiologic technician, one must graduate from an accredited program typically offered at the community college level and pass a certification exam from the Commonwealth of Virginia. In the New River Mount Rogers WDA, healthcare technicians can find jobs at many locations including Carilion New River Valley Medical Center, Johnston Memorial Hospital, Twin County Regional Hospital, and Lewis Gale Hospital.

Health Technologist & Technicians Competencies

Knowledge	Skills	Abilities	Work Activities
Customer & Personal Services	Social Perceptiveness	Static Strength	Assisting & Caring for Others
Medicine & Dentistry	Judgement & Decision Making	Flexible of Closure	Performing for or Working Directly with the Public
Education & Training	Complex Problem Solving	Inductive Reasoning	Identifying Objects, Actions & Events
Computers & Electronics	Active Listening	Multilimb Coordination	Interacting with Computers
Public Safety & Security	Service Orientation	Written Expression	Documenting/Recording Information

80.2%

of workers in this field are female.

54.2%

of the workers in this industry work for hospitals.

Associate's Degree Preferred

\$45,323
Median Salary

12.6%

of the workers currently in this field are minorities.

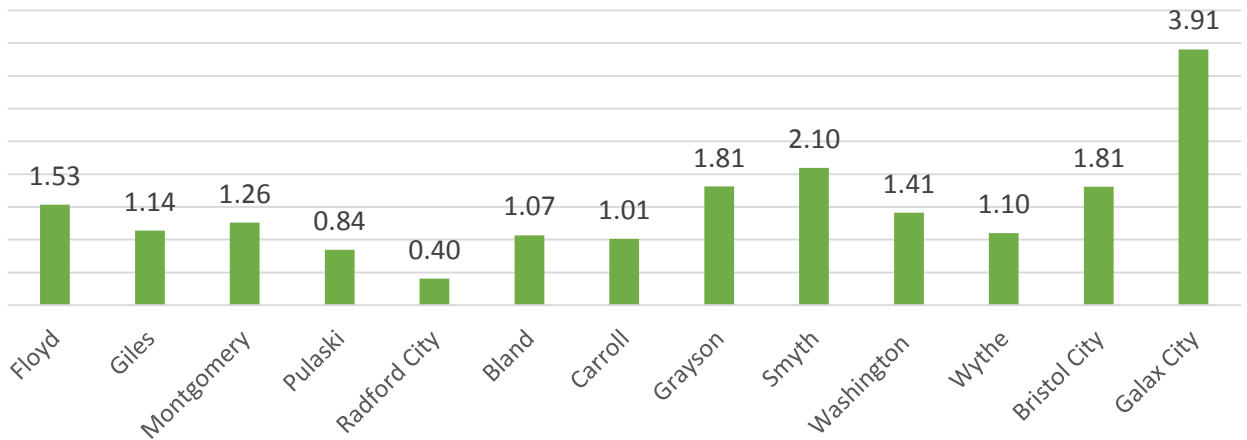


Source: O*Net Online; EMSI (2016-2021)

Nursing Assistants and Home Health Aides have several similar skillsets to a Healthcare Technician. To bridge the skill gaps and become a Healthcare Technician, one must go through an accredited program of study. Regional community colleges offer programs such as:

- Virginia Highlands Community College – An Associates in Radiography; a Career Studies Certificate in Magnetic Resonance Imaging to become an MRI Health Technician.
- Wytheville Community College – Associates degrees in medical laboratory technology and dental hygiene; Career Studies Certificates in medical coding, medical transcriptionists, medical records clerks and pharmacy technicians.
- New River Community College – An Associates in Medical Administrative Support Specialization such as medical records technicians and transcriptionists; Career Studies Certificates for medical coding and pharmacy technicians

Startup Business Density in 2015

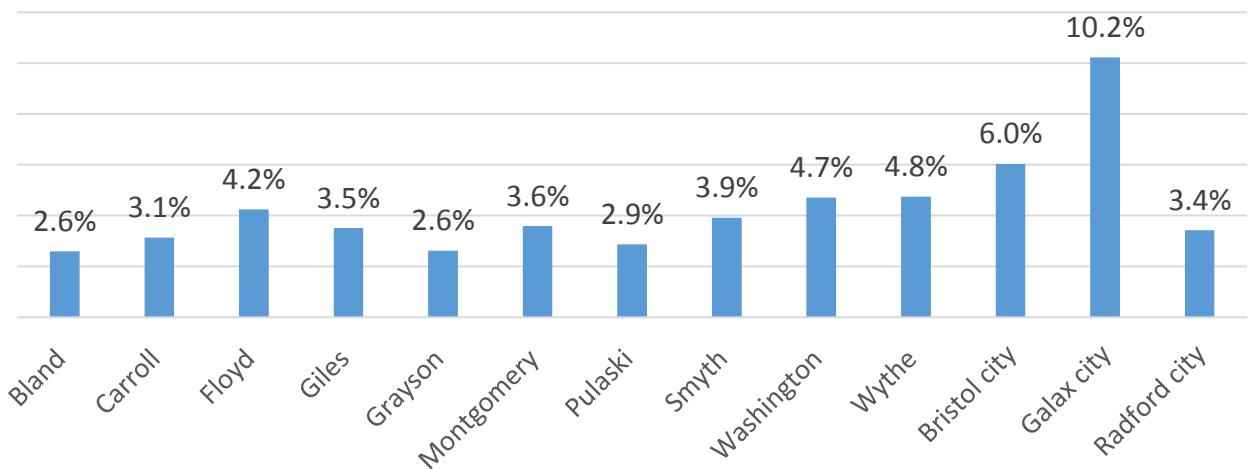


Source: Labor Market Information (LMI), Virginia Employment Commission

Entrepreneurship contributes greatly to the growth of the tourism industry as small businesses provide food, accommodation and recreational services to tourists. Here, we define a startup as a business begun within the past year with less than 250 workers. Startup density, the number of startups per 1,000 people, is an indicator of entrepreneurial vibrancy. Grayson and Smyth Counties, and the cities of Bristol and Galax have higher startup densities than the state average of 1.68. The number of startup businesses increased significantly in Montgomery, Washington, Galax and Radford since 2014.

Another indicator of vibrancy is the number of business owners as a percent of total population. This indicator is generally lower than the state average of 4.6%. Both indicators allude to a potential need for more entrepreneurial resources and the difficulty of providing those resources in a large, rural region.

Percentage of Business Owners among Population age 16 years and over



Source: Youreconomy.org; U.S. Census American Community Survey, 2014 Five-Years Estimate

New River Mount Rogers hosts a growing number of financial, training and business counseling support services available to current and future small business owners. Below are examples of those services. Two local offices of Virginia's Small Business Development Center (SBDC) are located at Blue Ridge Crossroads in Galax and Virginia Highlands Community College in Abingdon, VA. Other resources exist not included on this page, including Beans and Rice providing assistance to microenterprises as well as less obvious services such as local and regional libraries.

Virginia Community Capital

- **Goldman Sachs 10,000 Small Business**
Provide small business owners with greater access to business education, financial capital, and business support services.
- **The Resilient Community Loan Fund**
Small business must be located in program area that meet the criteria are eligible for funds that can be used for financing growth, purchase of equipment and commercial real estate, etc.
- **Southwest Virginia Outdoor**
\$50,000-\$1,000,000 awarded for small businesses that are leading the diversification of Southwest Virginia economy into outdoor tourism.

For more information please visit
<http://www.vacommunitycapital.org/smallbusinessproducts>

People Incorporated

- **Business Development and Loan Services**
Financial assistance microenterprise loans to establish and expand small businesses.
- **Technical Assistance and Training**
Business training seminars and technical assistance for small business owners
- **New Markets Tax Credits**
Tax credits offered to business investors in return for investment in low-income communities.
- **Ninth District Development Financing**
provides loan funds for tourism-related businesses in Virginia's Ninth Congressional District
For more information please visit
<http://www.nddf.org/>

Virginia Small Business Financing Authority (VSBFA)



The (VSBFA) provides cash collateral, subordinate companion loans, guaranties, and loan loss reserves support for small businesses. Current programs include:

- State Small Business Credit Initiative (SSBCI) Cash Collateral Program
- Economic Development Loan Fund
- Loan Guaranty Program
- SSBCI Capital Access Program
- Small, Woman owned & Minority owned business (SWaM) Business Loan Fund

For more information please visit
<https://sbsd.virginia.gov/financing-authority>.

Mount Rogers Planning District Commission

Loan Funds Program

- A Federally-funded business assistance program
- Used for business startup or expansion
- Maximum loan amount is \$150,000
- At least one job should be created for every \$15,000 borrowed
- Loans can finance up to half of your project.
- Used for building acquisition, building construction/renovation, machinery & equipment, and working capital

For more information, please visit
<http://www.mrpdc.org/loanfunds.htm>

Sector-focused Approaches: Strengthening Opportunities for Workers and Businesses in Southwest Virginia

Through Department of Labor funded projects administered by the Virginia Community College System, Virginia Tech's Office of Economic Development (OED) is leading **sector-focused analysis, engagement and planning activities** in southwest Virginia. The project area is large, covering nearly 23% of the Commonwealth, and includes those localities served by the Southwest Virginia, the New River-Mt. Rogers, and the Western Virginia Workforce Development Boards.

Virginia Tech's work supports the region's ongoing economic transition efforts by developing a data-driven sector-focused regional plan, facilitating broader stakeholder engagement, updating regional economic and workforce data, and conducting a gap analysis of worker support services.

One project goal is to generate ideas and build consensus around how sector-driven approaches contribute to a stronger and more resilient regional economy. Sector strategies require active and concentrated partnerships and involvement of businesses in one or more targeted industry sectors, along with workforce development organizations, educators, training providers, community organizations, and other key stakeholders. Sector-focused initiatives in other parts of the U.S. have led to reduced employee turnover, employer cost-savings, higher wages, and other tangible benefits for both companies and workers.

Sector strategies are regional in scope and industry specific. OED will help engage employers in critical industry sectors across the larger southwest Virginia geography and identify shared needs and challenges in terms of workforce and growth. For example, one important sector for the region's economy is manufacturing. On November 1, Virginia Tech partnered with the New River Mt. Rogers Workforce Development Board to conduct a forum on manufacturing workforce in the Twin Counties region (Grayson and Carroll Counties and the city of Galax). OED is continuing outreach to manufacturing employers across southwest Virginia, and also engaging employers in other industry segments such as technology. The process will identify opportunities for more concerted coordination and ongoing communication between economic development and workforce development organizations through sector-driven approaches.



OED faculty leading discussion on supporting business at UVA Wise

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