



2017
Quarter 3

**New River Mount Rogers
(WDA II)
Quarterly Workforce Report**



Quarterly Workforce Report

2017.3

Welcome to the 2017 third 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 District, 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 present an analysis of regional labor supply and 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 September 2017.

In this quarter's report, we examine the state of entrepreneurship in WDA II and how it relates to workforce development. A growing trend in the U.S. is understanding how the workforce system can better support residents in developing the skills needed to be entrepreneurs as well as supplying them with the skills and workforce needed to help these small businesses scale up in their region.

Additionally, this report explores some trends in educational attainment, the presence of STEM occupations, and behavioral health in Workforce Development Area II (New River Mount Rogers).



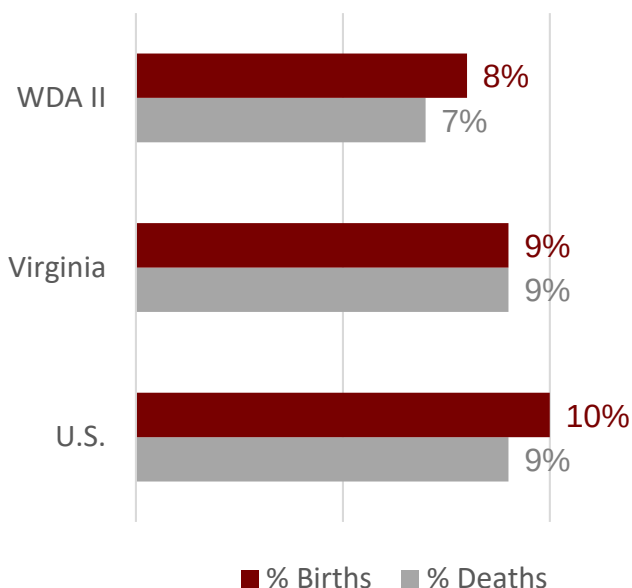
Different Types of Entrepreneurs and Small Business Owners

Like many things in life, entrepreneurship is not one size fits all. There is the classic split between those who consider themselves “entrepreneurs” and those who see themselves as small business owners. KCSOURCELINK, a spinoff of the renowned Ewing-Marion Kauffman Foundation (advocacy group for entrepreneurship), splits entrepreneurship even further into four different groups:

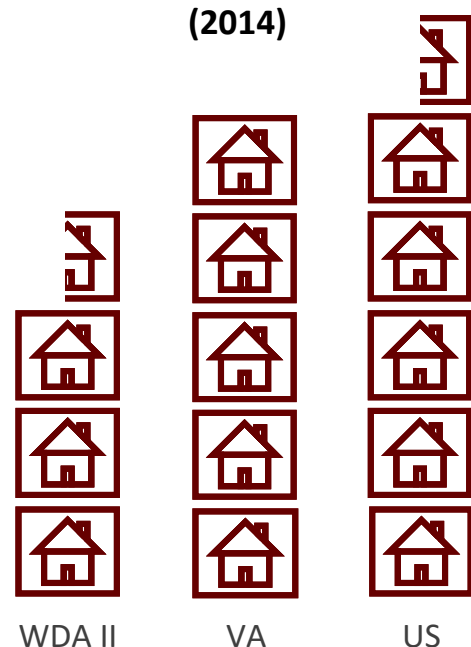
- 1) **Innovation Led**: Often those who define themselves as “entrepreneurs”, these business owners have developed an innovative product or process. These businesses are often “high growth” firms and form around intellectual property in the science and technology sectors. They may rely heavily of research institutions and universities for tech transfer opportunities.
- 2) **Second Stage**: These are businesses that have survived the startup phase (often five or so years), and are looking to scale up their business by discovering new markets or launching new products. These are companies with 10-99 employees who now need teams of experts to take their business to the next level through improved marketing, more locations, and more.
- 3) **Main Street**: These companies comprise a large portion of our economy and contribute to the culture and feel of a community. Main street entrepreneurs are the owners of coffee shops, dry cleaners, graphic design studios, boutiques, etc. They are often dedicated to their business and community over the long-term and tend to pass their business along to an employee or family member upon retirement.
- 4) **Microenterprises**: As small-scale, often one-person businesses, microenterprises require less than \$35,000 to start their business. These firms have grown in popularity since the recession, as those who have been laid off or downsized look for additional revenue streams.

Source: KCSOURCELINK (2017). Four Types of Entrepreneurship: Because One Definition Does Not Fit All. Retrieved from: <http://www.kcsourcelink.com/blog/blog/2017/01/30/four-types-of-entrepreneurship-because-one-definition-does-not-fit-all>

Company Births and Deaths as Percent of Total Establishments (2013-2014)



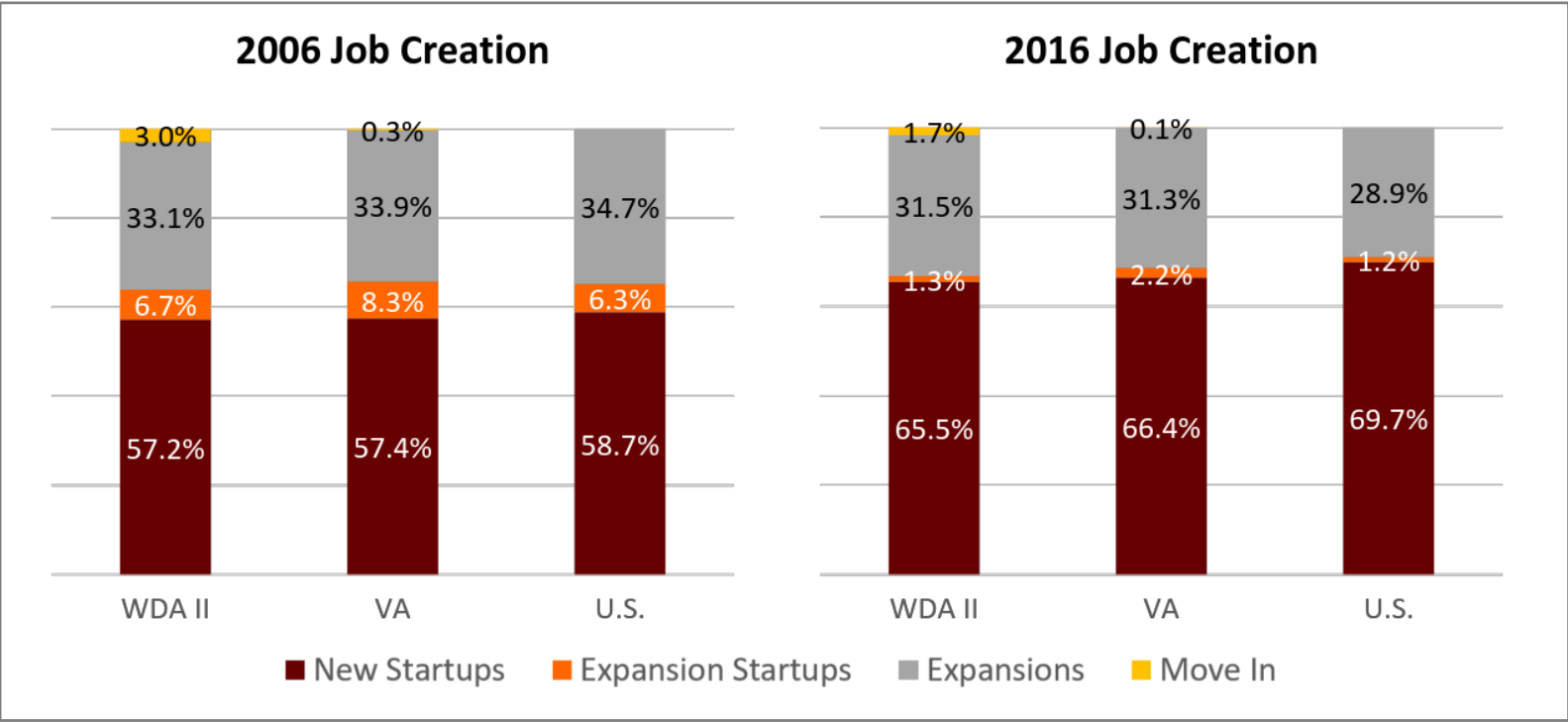
Number of Startup Births per 1,000 people (2014)



Source: U.S. Census (2014). Statistics of U.S. Businesses and Business Dynamics Statistics Database. <https://www.census.gov/>

YE YourEconomy.org provides a breakdown of job creation by company type. **New startups** are new businesses, identified by a new FIPS code. **Expansion startups** are new businesses that are affiliated with a headquarters (spinoffs). **Expansions** are existing businesses that show an increase in employment. **Move in** businesses are those that already existed, as evidenced by an existing FIPS code, but they have moved into the region since the previous year.

The Annual Job Creation chart below shows that New River Mount Rogers has increased its reliance on new startups for job creation, yet startups in this region are still not contributing as much to employment as the state or national averages. Furthermore, aligning with state and national trends, startup companies are not expanding as much as they did prior to the Great Recession.



2016 Job Creation

1.7%

31.5%

1.3%

65.5%

WDA II

0.1%

31.3%

2.2%

66.4%

VA

28.9%

1.2%

69.7%

U.S.

New Startups

Expansion Startups

Expansions

Move In

Between 2015 and 2016, any business with a new FIPS codes comprised 45%-75% of total job creation in the NRMNR region. They contributed to overall job growth, particularly in (darker) counties with higher percentages of startup job creation. However, their contribution was countered by closures and layoffs, resulting in lower net job growth or decline.

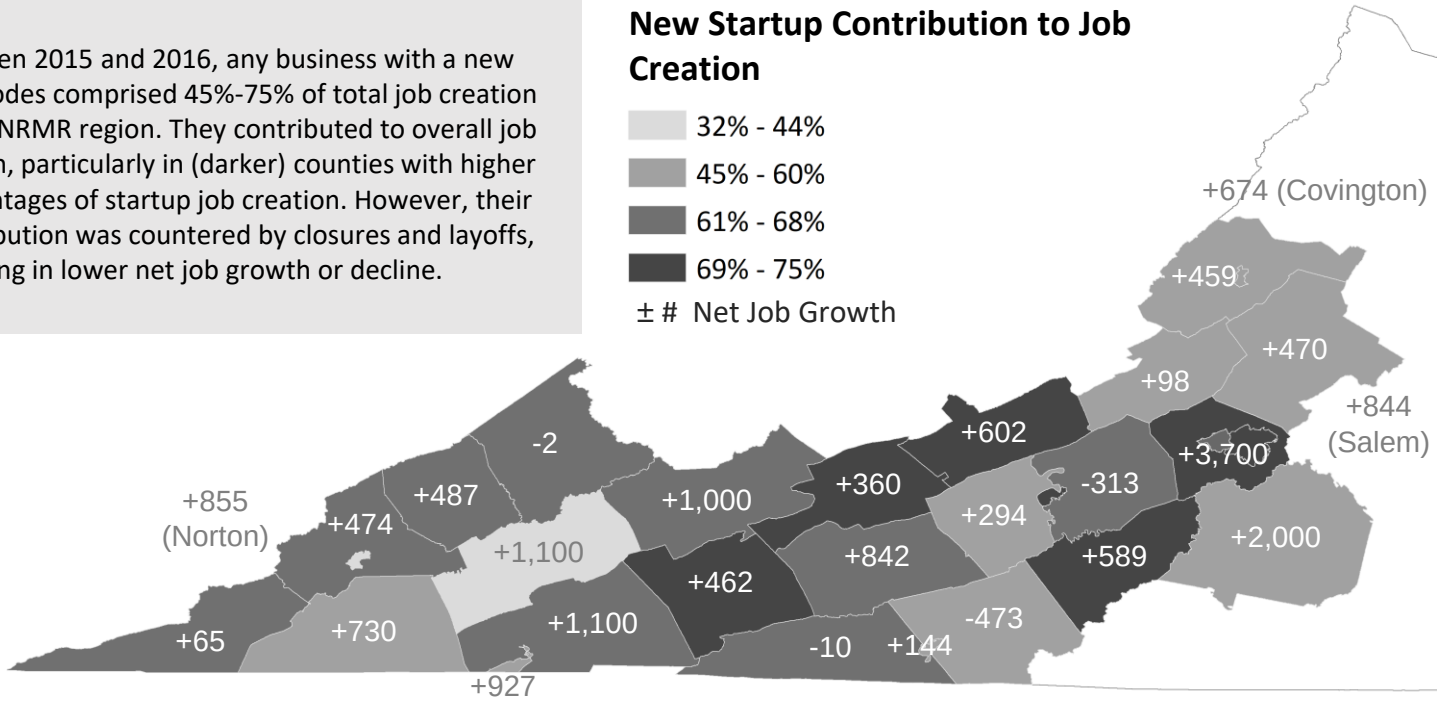
New Startup Contribution to Job Creation

- 32% - 44%

45% - 60%

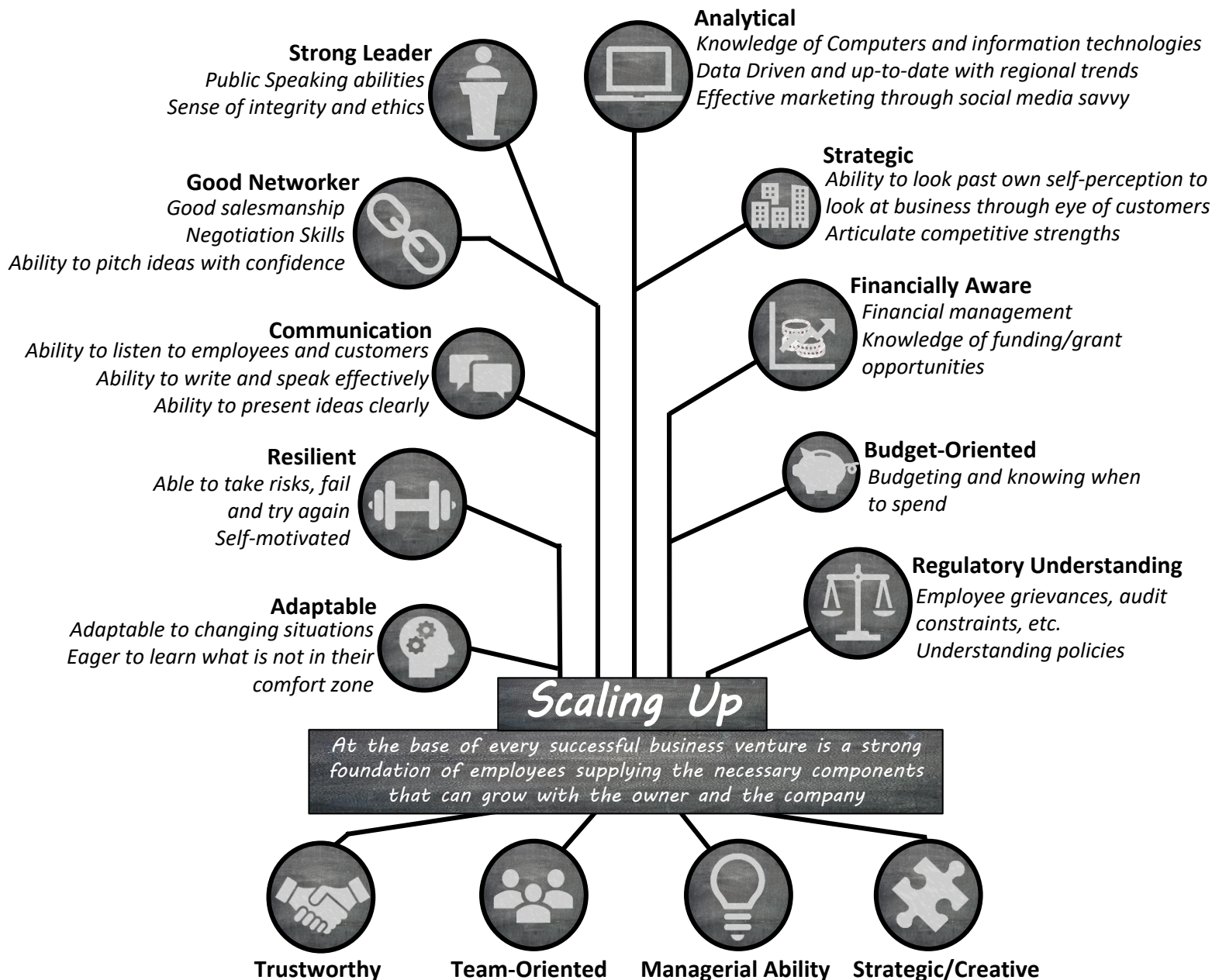
61% - 68%

69% - 75%
- ± # Net Job Growth



Source: UW Extension Business and Entrepreneurship (2017). YE Your Economy Dashboard. Retrieved from: <http://www.youreconomy.org>

Top Ten Skills and Traits of Entrepreneurs



"Inevitably, and because they can "get away with it", at their inception small and medium-sized enterprises lack the sophisticated managerial systems often found in larger organizations. At first, SMEs can operate well enough without such management systems because the founder can coordinate and manage by personal involvement. This turns into a weakness when growth increases the number of elements that require managing." --Scale up UK Growing Business Report by Cambridge University

What's the Role of Workforce in Supporting Entrepreneurship?

- Transitioning skilled, dislocated or underemployed workers
- Integrating entrepreneurship options and training into workforce programming
- Connecting interested entrepreneurs to resources in the region
- Building and maintaining relationships with established entrepreneurship support providers
- Collaborating instead of duplicating services and programs for entrepreneurs

SOME ENTREPRENEURIAL RESOURCES

VT KnowledgeWorks

VT KnowledgeWorks provides services to up and coming businesses. Consulting services are available as well as mentoring, connecting businesses with early stage investors, and professional service providers.

- Startup chat events as well as interactive workshops available.
- Teaching businesses the “how to” obtain funding, establishing social media, pitch your company, and other strategies.
- Business concept reviews at no charge to the public.

For more information, please visit:

<http://www.vtknowledgeworks.com/>

Studio 2.0 and Techpad

These are two business coworking spaces for freelancers and startup businesses in Blacksburg. They offer month to month memberships that businesses would have access to their own desk, internet, conference room, and other resources.

- Social and educational events hosted.
- Meet other business professionals and make connections.
- Collaborate with other businesses.
- They offer a membership exclusively for community events, networking events, and listening to guest speakers.

For more information, please visit:

<http://www.studiotwopoint0.com>

Virginia Highlands Small Business Incubator

Located in Abingdon, VA, this incubator was started with the support of the Town of Abingdon and Washington County. Its purpose is to help growing startups and businesses wishing to scale up through:

- Affordable office space open 24/7
- Access to share resources such as audiovisual equipment, copying equipment, meeting rooms and low-cost telephone, fax and internet services.
- Coworking space for those needing part-time support
- Administrative and programmatic support

For more information, please visit: <http://vhsbi.com/>

Beans and Rice, Inc.

Beans and Rice, Inc., located in Pulaski, seeks to help improve the lives and well being of low-to-moderate income families. They offer an asset building program that helps eligible families build financial assets through starting or expanding a business as well as through other means.

- They have a micro-enterprise development program that helps business in Pulaski County, Virginia. Services include business training, technical assistance, and access to capital.
- Industry focused resources are provided to the areas of Pulaski County, Dublin, and Town of Pulaski.

For more information, please visit:

<http://www.beansandrice.org/>

Koofers: An Online, Interactive Community

Koofers is an online academic portal in which students can get information about classes and professors and get assistance with coursework. Koofers was founded by Virginia Tech students Michael Rihani and Patrick Gartlan, along with alumnus Glynn LoPresti. Their vision for Koofers.com began in 2006. They saw the lack of social studying networks for college students and decided to take action. They wanted to enable students to make the relatively opaque process of class and teacher selection fully transparent by providing grading histories and professor reviews to help students shape their class schedules.



The company began in 2008 with 18 part-time employees, but they immediately began scaling-up, launching nationwide the following year. When looking for new employees, Michael Rihani said that the type of worker he looked for must have “grit and hustle” as they scaled up at a rapid rate with 15 full time employees and over 400 campus reps nationwide in just a few years from when they got started. He also looked for caring and kind people that are easy to get along with and like to “disrupt the norm”.

Venture capitalists were Rihani’s most valuable assets and mentors getting started. When asked about advice to other entrepreneurs, Michael said “you must really want to become an entrepreneur and have the desire to just find a problem that you see in the world and fix it. Focus is key. We had five services we did well but eventually learned it was better to do three things very well, those being old exams, professor ratings, and flash cards. We never focused enough to do one thing excellent which would have been monetizing our best and original product: old exams.” Today, Koofers.com continues to launch at more higher-education schools and grow its services each semester.

Washington County Business Challenge

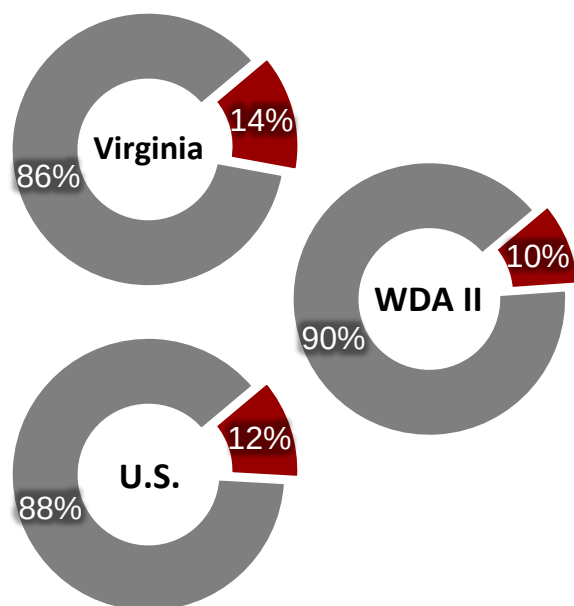


Washington County is hosting a business challenge contest for small business owners and entrepreneurs from January 23 to February 27, 2018. All businesses and individuals must submit an application by January 8, 2018. The challenge has a weekly class that covers various topics such as introduction to starting a business, credit and managing a business, customer service and promotion. The contest will award over \$15,000 in business investment grants for businesses looking to expand jobs within the Town of Abingdon and Washington County. Additional monies of \$8,000 from the private sector have also been provided to the contest from Speigler Blevins and Penn Stuart. Last year the winners of the contest

included a tiny house builder and a 3d printing and art studio. Eighteen applicants applied for the contest in 2017 and six businesses were chosen as winners. To win a competitive award from the contest, businesses must be located in Washington County, Town of Glade Spring, Town of Damascus, or the Town of Abingdon.

For more information or for the application please visit, <http://washingtonvachamber.org/programs/>

Percentage of STEM Occupations ●



Total STEM Occupations Projection, 2016- 2022

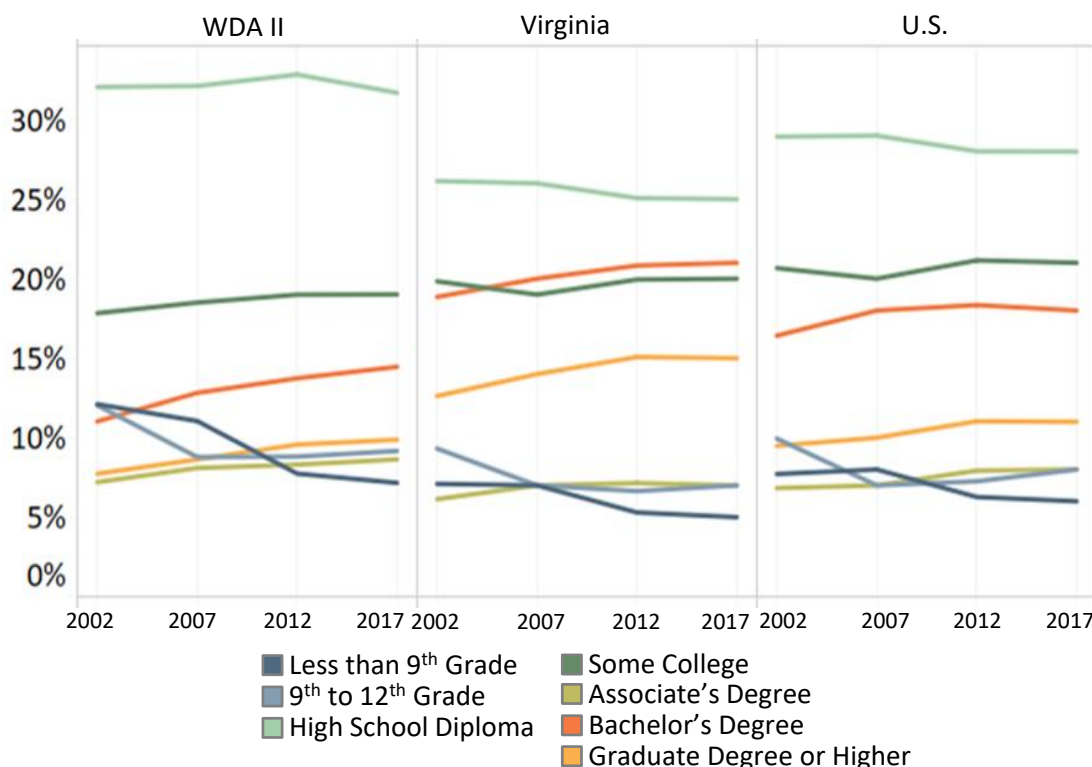
Description	2016 Jobs	2022 Jobs	% Change
Registered Nurses	2,156	2,338	8%
Licensed Practical and Licensed Vocational Nurses	1,052	1,153	10%
Miscellaneous Healthcare Support Occupations	1,024	1,174	15%
Health Practitioner Support Technologists and Technicians	963	1,013	5%
Software Developers and Programmers	787	901	14%
Computer Support Specialists	736	808	10%
Physicians and Surgeons	519	592	14%
Database and Systems Administrators and Network Architects	502	528	5%
Computer and Information Analysts	452	509	13%
Diagnostic Related Technologists and Technicians	331	364	10%

Source: EMSI 2017.3; QCEW Employees

Using the National Science Foundation's typology for STEM workers, we find that 11% of all employment is comprised of those in science, technology, engineering and math jobs. This is below the U.S. and state averages; however, employment is projected to increase in these occupation groups by 8% annually, which may decrease this gap.

Health and medical related occupations make up the greatest portion of workers in WDA II for STEM occupations. Wytheville, New River, and Virginia Highlands Community Colleges offer 2 to 4 semester certificates in Allied Health Diagnostic, Intervention, and Treatment that could lead to a healthcare support technician profession. New River and Wytheville also offer a two year program to become a licensed practical/vocational nurse. Registered Nursing degrees are offered by all three community colleges as Associate's Degrees and Radford University offers an RN degree at the Bachelor's or Graduate level.

Educational Attainment

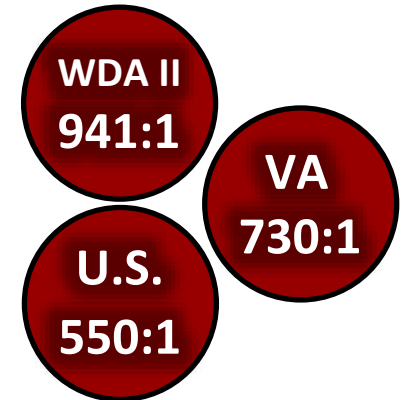


The chart to the left shows education attainment trends from 2002-2017 in the New River Mount Rogers region, Virginia, and the U.S. Education attainment has increased overall in the region, becoming more on par with U.S. averages. Percentages of those with less than a high school diploma declined significantly while the proportion of those with bachelor degrees, and to a lesser extent graduate degree, has increased. Still, WDA II has higher percentages of residents who have attained up to a high school diploma.

Behavioral Health Occupations Projection, 2017

Occupation	2017 Jobs	2022 Jobs	% Change
Mental Health Counselors	425	448	5%
Substance Abuse and Behavioral Disorder Counselors	275	289	5%
Mental Health and Substance Abuse Social Workers	251	261	4%
Psychiatric Technicians	252	244	-3%
Clinical, Counseling, and School Psychologists	127	135	6%
Psychiatric Aides	124	123	-1%
Rehabilitation Counselors	86	89	3%
Psychiatrists	32	33	3%
Psychologists, All Other	15	14	-7%
Total	1,585	1,636	3%

Source: EMSI 2017.3; QCEW Employees

Number of People to Mental Health Care Providers Ratio

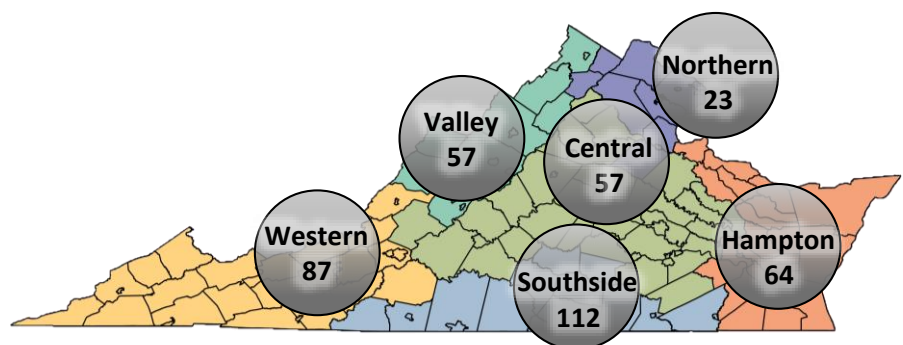
Source: County Health Rankings, 2016

Mental and behavioral health problems are very common in the U.S. Although effective treatments exist, many patients go untreated due to the stigma associated with mental and behavioral health issues, a lack of familial and cultural support, and the lack of access to mental and behavioral health care services. Lack of access exists in a few forms, including lack of transportation, a lack of health care providers, an onerous distance necessary to travel to receive treatment, a lack of resources to pay for services, and a lack of information about what services exist.

The table above shows the number of behavioral health occupations and projections for WDA II. For every one mental healthcare provider, the region has 941 residents, which indicates less access compared to national and state averages. Bland, Grayson and Giles counties each have just one reported mental health care provider, while Montgomery and Wythe counties, as well as the City of Galax, each have mental health care provider ratios below the regional and state levels.

County Health Rankings

County	Health Outcomes	Health Factors
Bland	88	57
Carroll	78	79
Floyd	39	34
Giles	90	51
Grayson	76	101
Montgomery	35	37
Pulaski	91	83
Smyth	94	99
Washington	62	72
Wythe	56	85
Bristol City	130	117
Galax City	115	107
Radford City	92	95

Average County Health Rankings

Source: County Health Rankings, 2016

The table above shows where each county or city in Workforce Development Area III ranks within the Commonwealth of Virginia out of a possible 133. *County Health Rankings* calculated scores and rankings for each county in 2017 based on different characteristics found under the 'Health Outcomes Rank' and 'Health Factors Rank' fields. Half of the health outcomes ranking is based on length of life and the other half on quality of life, which includes reporting's of poor health by adults and mental health days taken. The measures used to determine health factor rankings were weighted using the following methods:

- Health behaviors (30%)- tobacco, drug, and alcohol use; diet and exercise
- Clinical care (20%)- access to care and quality of care
- Social/Economic environment (40%)- education, employment, income, family support, and community safety
- Physical environment (10%)- air and water quality; housing and transit options

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