

How can workforce support the region's Traded Industries?



2017
Quarter 2

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



Quarterly Workforce Report 2017.2

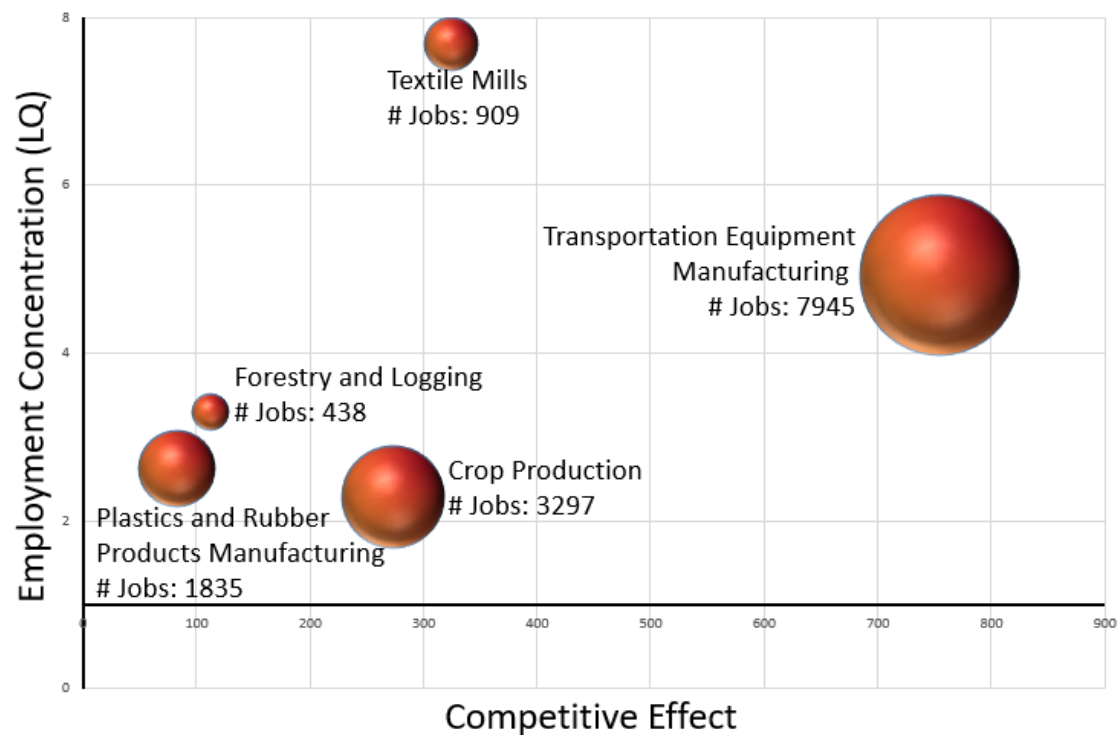
Welcome to the 2017 second quarter workforce report, produced by the Virginia Tech Office of Economic Development on behalf of the New River Mount Rogers Workforce Development Board (WDB). This region comprises the New River Valley Regional Commission and the Mount Rogers Planning Districts, including 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 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 June 2017.

In this quarter's report, we examine examples of traded industries in the region and some of the occupations they employ. Traded industries are those that export the majority of their products outside the region. As such, they have a large economic impact in their communities. Regions tend to rely heavily on these industries to bring new money into the region and grow the economy. For example, Southwest Virginia's Coal and Manufacturing industries are both traded industries that this region has historically relied on to drive its economy. As coal and certain types of manufacturing struggle, other support industries tend to suffer as well. Examining how other traded industries might grow and sell to markets outside the region may provide opportunities for the region to diversify and strengthen its economy.

With funding through an EDA POWER grant, Mangum Economics produced a report highlighting several of the declining traded industries and how their supply chain companies can find other customers and markets so they might thrive in the future. To read the full Mangum's Report, contact the Virginia Tech Office of Economic Development (contacts are on the back of this report).



The “traded” industries below export a large portion of their products or services to customers outside of Workforce Development Area II, thereby expanding the region’s economy by bringing in outside revenue. While these industries may be smaller in terms of employment, for the most part, their employment concentration (location quotient) and overall employment growth between 2012-2017 (competitive effect) are greater than the national average. These are indications of potential industry strengths and opportunity for growth in the region.



Source: EMSI Analyst. 2017.2. Class of Worker QCEW, Non-QCEW, and Self-Employed and the Bureau of Labor Statistics

Key Takeaways from the Mangum Economics Industry Report

The recent industry supply-chain report released by Mangum Economics showed that the New River Mount Rogers Region experienced an employment growth of 2.5% over the last five years, but that growth lagged behind the statewide average of 5.7%. There were 12 industry sectors that experienced significant employment losses of 100 employees or more over that time period. Five of those industry sectors were “traded” industries including: *Machine Shops, Management of Companies and Enterprises, Mining Machinery and Equipment Manufacturing, Motor and Generator Manufacturing, and Plate Work Manufacturing.*

For each of these five traded industries, Mangum identified potential regional and national customers that have experienced employment gains. These downstream customers provide an opportunity for businesses currently supplying the declining five traded industries to switch to other industry markets. These industries include: *truck trailer and motor vehicle/parts manufacturing, business support services, retail, wholesale trade, restaurants, and physician offices.*

Transportation Equipment Manufacturing

The transportation equipment manufacturing subsector produces equipment for transporting people and goods. In a globalizing world, this subsector is ever more significant. Manufacturers utilize production processes similar to other machinery manufacturers; for example, bending, forming, welding, machining, and assembling metal or plastic parts into components and finished products. But they are geared more toward transportation vessels for road, rail, air, and water. Motor vehicles, tractor trailers, and various parts have their own industry groups in this subsector due to their size. Land use equipment not designed for transportation or shipping operations (e.g., agricultural equipment, construction equipment, and materials handling equipment) is not part of this subsector.

As an example of a transportation equipment manufacturer, General Dynamics has offices nationally and internationally. Its Advanced Materials unit in Marion, VA was established in 1946 and currently employs about 560 talented workers in Southwest

Source: O*Net Online, EMSI Analyst. 2017.2.

Class of Worker QCEW, Non-QCEW, and Self-Employed and the Bureau of Labor Statistics



Picture Source: General Dynamics

Virginia. They provide reliable and affordable composite products to the defense and commercial aerospace markets, specializing in manufacturing armored and weaponized military combat vehicles, more specifically aircraft vessels parts and engine components.

In the past several months, Marion's Advanced Materials unit has posted job openings for a Test Range Engineer, a Manufacturing and Production supervisor, and several other engineering positions.

Regional Data on Occupations in Transportation Equipment Manufacturing

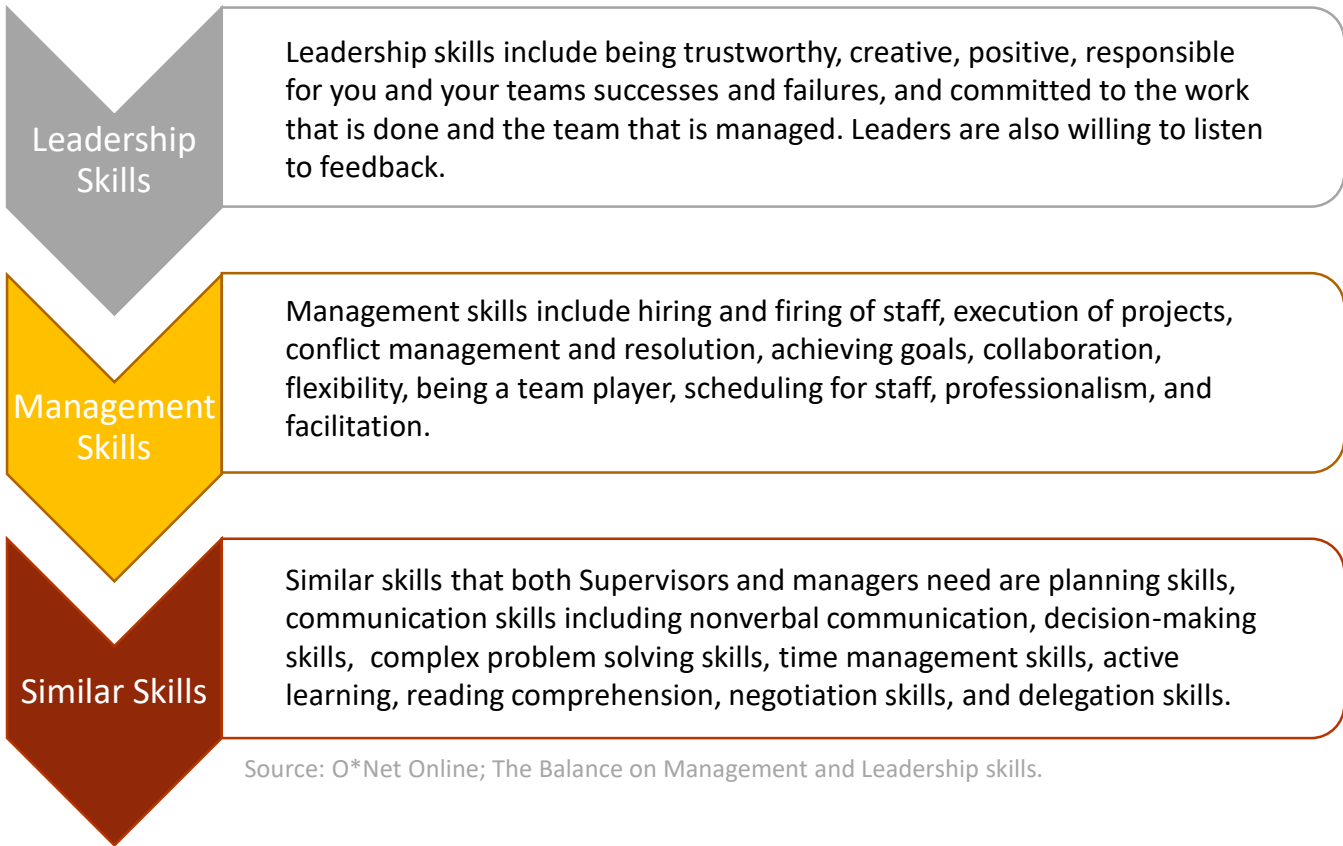
Occupations (4-Digit SOC)	2017 Total Jobs in WDA II	% Growth (2012-2017)	Average Annual Openings	Median Hourly Wage
Assemblers and Fabricators, All Other	1,355	17%	87	\$20.29
First-Line Supervisors of Production and Operating Workers*	1,019	4%	43	\$26.40
Machinists	960	8%	69	\$19.86
Inspectors, Testers, Sorters, Samplers, and Weighers	732	6%	39	\$16.21
Welders, Cutters, Solderers, and Brazers	643	(6%)	35	\$19.32
Industrial Machinery Mechanics	632	12%	38	\$19.58
Electricians	512	0%	24	\$19.29
Industrial Engineers	422	3%	23	\$34.77
Production Workers, All Other	363	10%	23	\$13.75
Painters, Transportation Equipment	237	20%	16	\$22.37

Red = Illustrates decline in jobs OR lower than livable wage (\$15/hr)

* Possible Occupation Crosswalk with Skillsets of First-Line Supervisors on next page

Source: EMSI Analyst. 2017.2. Class of Worker QCEW, Non-QCEW, and Self-Employed

Employers across industries have expressed a need for qualified middle management job candidates. While some people have a natural management and leadership capacity, some require training and understanding of the different skills required.



Management Training Programs in the Region

New River Community College offers a Business Management Degree and a Marketing Management Degree. The Business Management Degree is a two-year program that provides an associate of applied science degree upon completion of the program. Positions students typically go into upon graduation are general and operations managers, supervisor positions in various industries, sales manager, management trainee, department head, and administrative services manager.

The Marketing Management program is under the Business Management Department and is a two-year degree program. Once completed, students will have an associate of applied science in business management with a specialization in marketing management. Graduates typically enter the workforce as marketing/management trainees, retail store owners/managers, department managers, and other various marketing positions.

Wytheville Community College offers an associate of applied science in Business Management and Leadership. This two-year program is for students who wish to enter a management position upon graduation or for students who wish to be promoted to a managerial position where they currently work. For more information on this program please visit their website.

Crop Production

The Crop Production subsector grows crops for material fiber, human food, and animal feed. Subsector establishments can vary from farms and orchards to greenhouses and nurseries. They may grow crops, plants, vines, trees or seedlings.

Currently in the New River Mount Rogers (NRMR) Workforce Development Area, the crop production subsector provides about 3,273 jobs, contributing 127% more to total employment than the national average. In 2016, there were 32 establishments in the region. Regional businesses include: Red Sun Farms, Andrews Farming Co, Walnut Grove Farm, Allison’s Greenhouse, and other crop production businesses.

Red Sun Farms in Dublin, VA, for instance, has a little over 200 employees. They currently have a job posting for an Assistant Grower. Farmworkers and laborers in greenhouses and nurseries are in high demand in WDA II compared to the nation, but suffer from a dearth of available workers. The region even has higher annual

Source: EMSI Analyst. 2017.2. Class of Worker QCEW, Non-QCEW, and Self-Employed and the Bureaus of Labor Statistics on Crop Production



Picture Source: Phys.org

salaries—a little under \$4K more than the national average.

Occupations employed by this industry include farmers, ranches, and other agricultural managers; farmworkers and laborers; and agricultural equipment operators. Similar skills required by these occupations include coordination, operation and control, monitoring, active listening, and critical thinking.

Regional Data on Occupations in Crop Production

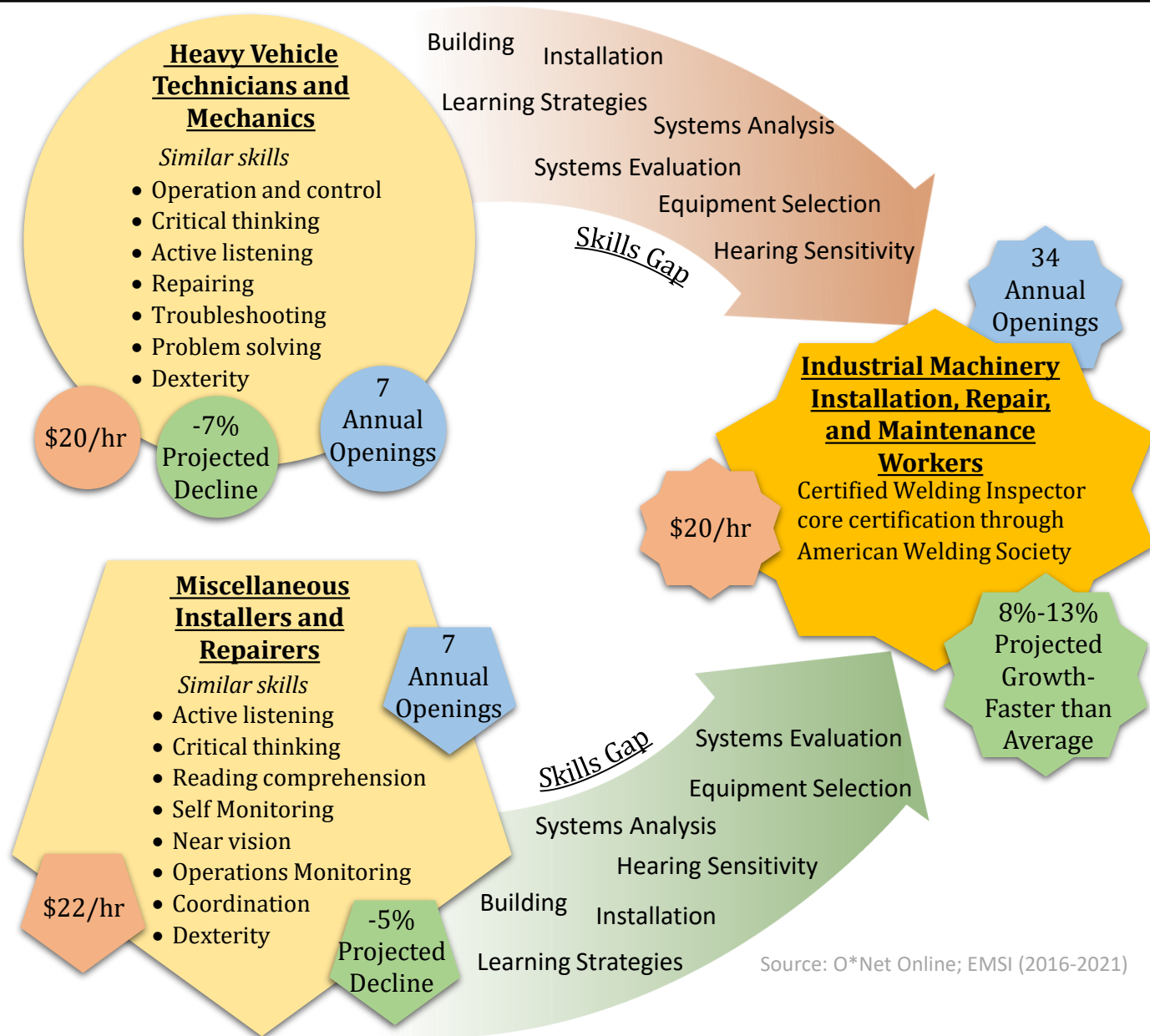
In the table below, we looked at both top 10 occupations and top 10 occupations with livable wages. We then narrowed that list by top 10 total employment in the Southwest Virginia workforce area.

Occupations (4-Digit SOC)	2017 Total Jobs in WDA II	% Growth (2012-2017)	Average Annual Openings	Median Hourly Wage
Farmers, Ranchers, and Other Agricultural Managers	5,955	(9%)	160	\$10.61
Maintenance and Repair Workers, General*	2,143	4%	88	\$16.69
Heavy and Tractor-Trailer Truck Drivers	2,025	(7%)	104	\$16.81
Bookkeeping, Accounting, and Auditing Clerks	1,854	(3%)	34	\$14.60
Managers, All Other	1,647	29%	113	\$19.24
General and Operations Managers	1,589	4%	69	\$35.12
Landscaping and Groundskeeping Workers	1,546	13%	93	\$10.62
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	1,342	6%	66	\$25.51
Accountants and Auditors	1,071	(2%)	47	\$26.91
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	904	55%	101	\$10.12

Red = Illustrates decline in jobs OR lower than livable wage (\$15/hr)

* Possible Occupation Crosswalk with Skillsets of Maintenance and Repair Workers on next page

Source: EMSI Analyst. 2017.2. Class of Worker QCEW, Non-QCEW, and Self-Employed



Commercial/Industrial Machinery Repair and Maintenance as well as Heavy Duty Truck Manufacturing are the leading industries that employ Industrial Machinery Installation, Repair, and Maintenance Workers. Electro-Tec Corp., Volvo Trucks and Utility Trailer Manufacturing Co. are examples of employers in WDA II. Heavy Vehicle Technicians and Mechanics, and Miscellaneous Installers and Repairers have similar skillsets to Industrial Machinery Repairers, but would need some training to bridge the skills gap. Some of the more common ways to obtain the appropriate skills are through certification programs, apprenticeships, and on-the-job training.

New River Community College offers a two-year Machine Technology degree and various one-year certificate programs such as Machine Shop operations, Industrial Maintenance, and advanced to entry-level welding. Wytheville Community College offers a similar set of two-year programs as well as an 80-hour (non-credit) training program. Virginia Highlands CC offers a few one-year certification programs including Manufacturing and Machine Technician as well as Welding.

Plastics and Rubber Products Manufacturing

The Plastics and Rubber Products Manufacturing subsector takes raw rubber and plastic materials and turns them into components parts or a final product.

In the New River Mount Rogers (NRMR) Workforce Development Area, this industry employs about 1,800 workers, a contribution to total employment that is 158% above the national average. The average earnings per job in this subsector is \$60,649 annually. Klockner Pentaplast of America, Longwood Industries Inc., Amcor Rigid Plastics, and Mar-bal Inc. are 4 of the 21 Plastics and Rubber Products Manufacturers in the region.

Source: EMSI Analyst. 2017.2. Class of Worker QCEW, Non-QCEW, and Self-Employed and the Bureau of Labor Statistics on Plastics and Rubber Products Manufacturing



Picture Source: Travelers.com

Occupations employed by this industry include molding, core making, and casting machine setters, operators, and tenders, team assemblers, first-line supervisors of production and operating workers. Similar skills for these occupations include monitoring, operation and control, reading comprehension, active listening, and operation monitoring.

Regional Data on Occupations in Plastics and Rubber Products Manufacturing

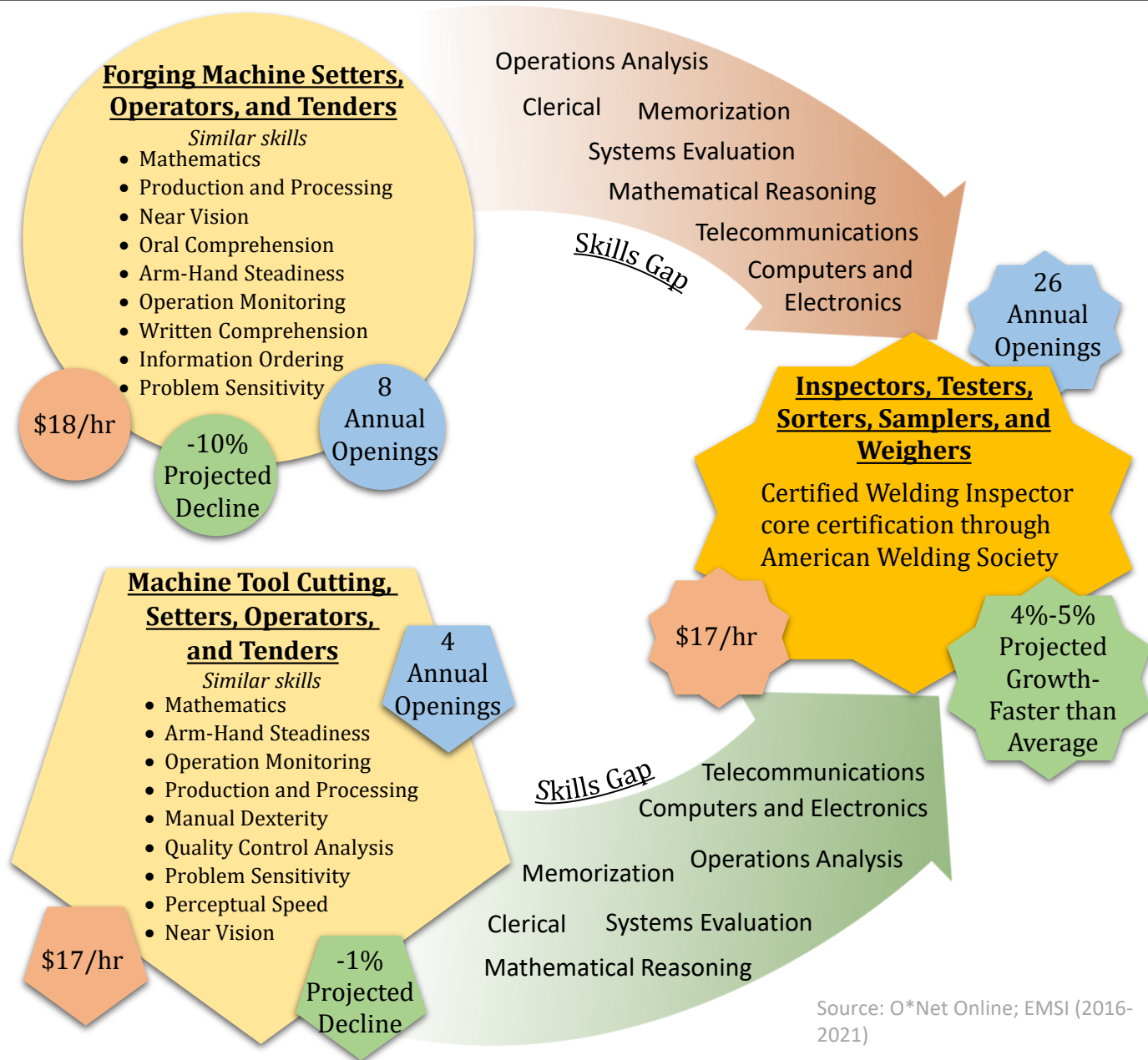
In the table below, we looked at both top 10 occupations and top 10 occupations with livable wages. We then narrowed that list by top 10 total employment in the Southwest Virginia workforce area.

Occupations (4-Digit SOC)	2017 Total Jobs in WDA II	% Growth (2012-2017)	Average Annual Openings	Median Hourly Wage
Team Assemblers	3,677	11%	204	\$16.64
Maintenance and Repair Workers, General	2,143	4%	88	\$16.69
Assemblers and Fabricators, All Other	1,355	17%	87	\$20.29
First-Line Supervisors of Production and Operating Workers	1,019	4%	43	\$26.40
Machinists	960	8%	69	\$19.86
Packers and Packagers, Hand	780	8%	40	\$9.60
Inspectors, Testers, Sorters, Samplers, and Weighers*	732	6%	39	\$16.21
Industrial Machinery Mechanics	632	12%	38	\$19.58
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	289	21%	24	\$12.25
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	188	(7%)	13	\$16.18

Red = Illustrates decline in jobs OR lower than livable wage (\$15/hr)

* Possible Occupation Crosswalk with Skillsets of Inspectors, Testers, Sorters, Samplers and Weighers on next page

Source: EMSI Analyst. 2017.2. Class of Worker QCEW, Non-QCEW, and Self-Employed



Motor Vehicle and Parts Manufacturing and Plastics Product Manufacturing are the leading industries that employ Inspectors, Testers, Sorters, Samplers, and Weighers. Federal-Mogul Inc., Kollmorgen Corp., and Somic America are examples of employers in WDA II. Forging Machine and Machine Tool Setters, etc. have similar skillsets to Inspectors, Testers, Sorters, Samplers, and Weighers, but would need some training to bridge the gap. Some ways of obtaining these skills are through certification programs, apprenticeships, and on-the-job training.

Similar to Industrial Machinists, New River Community College offers a two-year Machine Technology degree and a two-year Automotive Analysis and Repair degree. NRCC also offers various one-year certificate programs such as Machine Shop Operations, and Advanced or entry-level welding certificate. Wytheville Community College offers a two-year Machine Technology degree and a three-semester certificate. Virginia Highlands CC offers an Automotive Technology certificate.

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