

# **SHENANDOAH VALLEY WORKFORCE DEVELOPMENT BOARD**

## ***STATE OF THE MANUFACTURING WORKFORCE STUDY***

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July 9, 2020



# INTRODUCTION

An overview of how the study began and its value to the Region.

# MEET THE TEAM

## Mission

We empower organizations and communities through strategic partnerships and informed solutions that create **positive, sustainable change**.

## Vision

A world that thinks **strategically**, works **collaboratively**, and acts **sustainably**.

## Values

High Quality // Collaboration // Entrepreneurship //  
Community Impact // Team // Ethics



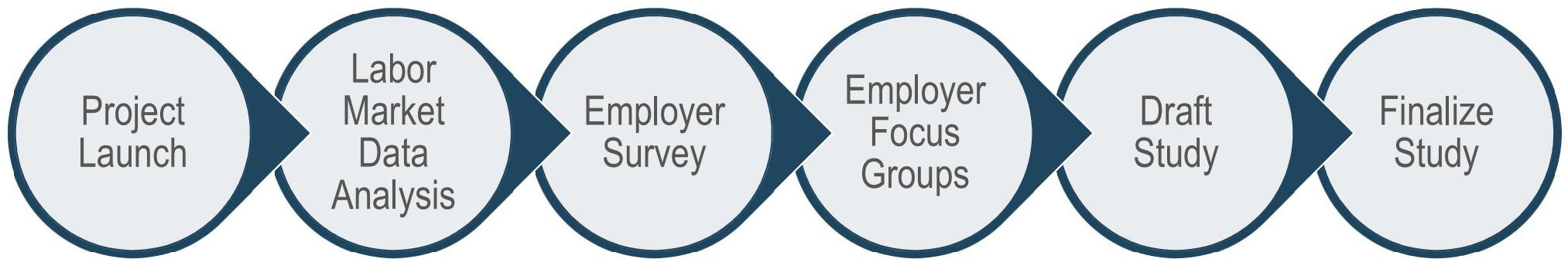
THOMAS P. MILLER & ASSOCIATES

THOUGHTFUL  
SOLUTIONS.  
EMPOWERED  
COMMUNITIES.

# BACKGROUND

- Third installment of the State of the Manufacturing Workforce Study (2013 - 2016 - 2019)
- *Purpose: to develop a comprehensive analysis of the manufacturing industry that incorporates quantitative and qualitative data collection in order to upskill talent to meet the needs of the Shenandoah Valley Region's manufacturers*

# DEVELOPMENT OF THE STUDY



# LABOR MARKET DATA ANALYSIS

A quantitative data analysis of the manufacturing industry, inclusive of in-demand jobs, wages, and demographics.

# INDUSTRY ANALYSIS

## Manufacturing Scorecard:

- 2<sup>nd</sup> largest sector in Region
- 5.7% growth, or 1,781 jobs ('13-'18)
- 3.0% projected growth, or 986 jobs ('18-'23)
- \$65,933 annual average earnings
- Highest Location Quotient of any sector (1.71)

Source: Emsi 2019.3

# INDUSTRY ANALYSIS

- Top Manufacturing Sub-Sectors (3-Digit NAICS)
  - Food Manufacturing (10,654 jobs)
  - Plastics and Rubber Products Manufacturing (4,389 jobs)
  - Printing and Related Support Activities (2,831 jobs)
  - Fabricated Metal Product Manufacturing (2,680 jobs)
  - Chemical Manufacturing (2,017 jobs)
- Highest Positive Competitive Effect
  - Plastics and Rubber Products Manufacturing (258 jobs)
  - Nonmetallic Mineral Product Manufacturing (208 jobs)
  - Apparel Manufacturing (159 jobs)

Source: Emsi 2019.3



# INDUSTRY ANALYSIS

- Top Manufacturing National Industries (6-Digit NAICS)
  - Poultry Processing (5,038 jobs)
  - All Other Plastics Product Manufacturing (2,064 jobs)
  - Books Printing (1,538 jobs)
  - Fluid Milk Manufacturing (1,277 jobs)
  - Commercial Printing (Except Screen & Books) (1,122 jobs)

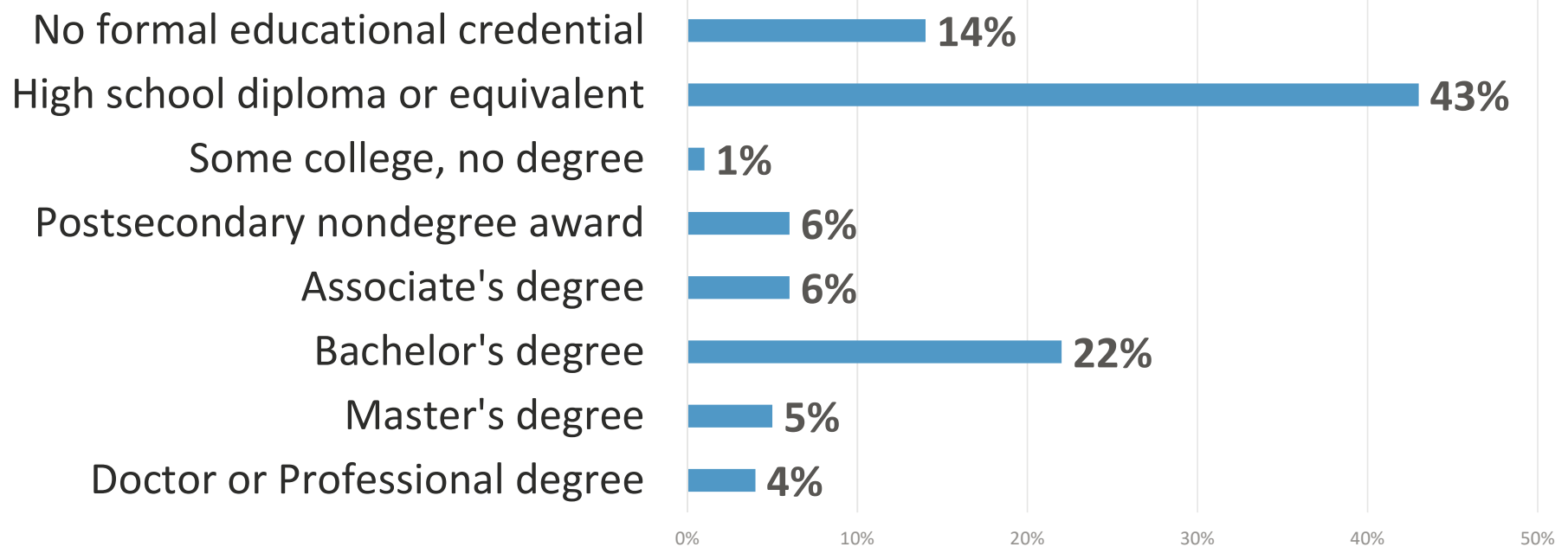
Source: Emsi 2019.3

# OCCUPATIONAL ANALYSIS

- Top Manufacturing Occupations (5-Digit SOC)
  - Assemblers and Fabricators, All Other, Including Team Assemblers (1,572 jobs)
  - Meat, Poultry, and Fish Cutters and Trimmers (1,267 jobs)
  - Packaging and Filling Machine Operators and Tenders (1,252 jobs)
  - First-Line Supervisors of Production and Operating Workers (1,213 jobs)
  - Laborers and Freight, Stock, and Material Movers, Hand (1,011 jobs)
- Median Hourly Earnings
  - Highest = General and Operations Managers (\$44.02)
  - Lowest = Packers and Packagers, Hand (\$12.34)

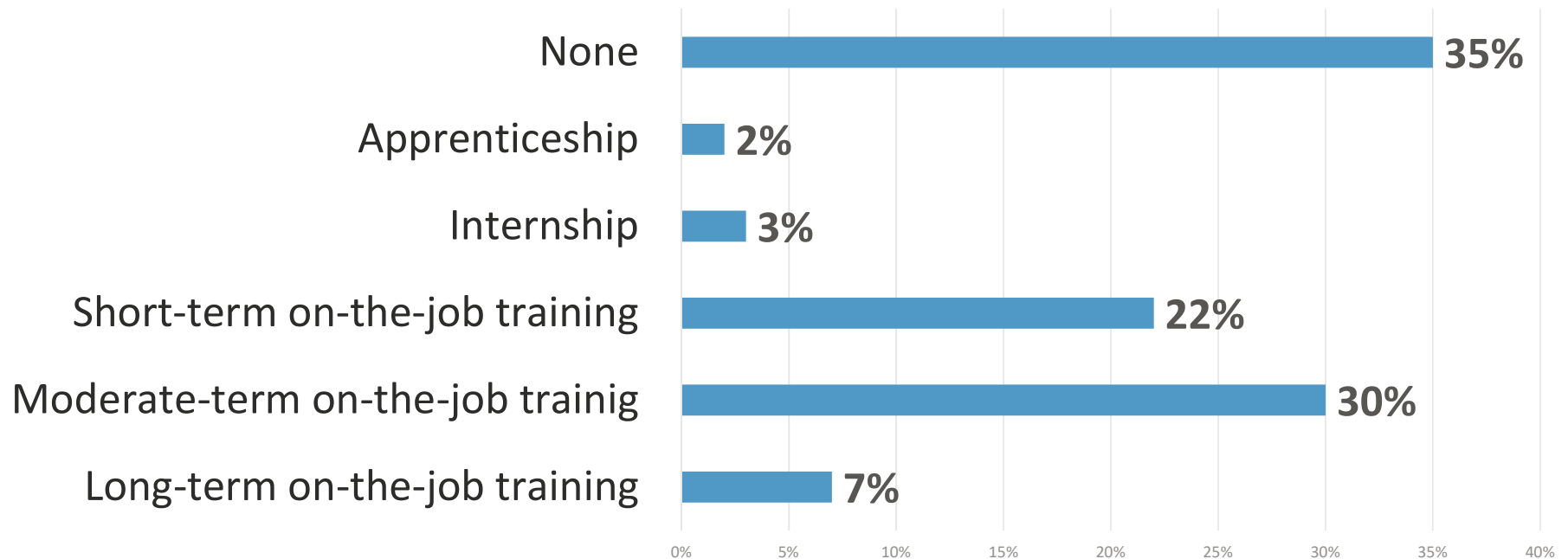
Source: Emsi 2019.3

# TYPICAL ENTRY-LEVEL EDUCATION



Source: Emsi 2019.3

# TYPICAL ON-THE-JOB TRAINING



Source: Emsi 2019.3

# MANUFACTURING EMPLOYMENT

	Manufacturing	Regional Average	Manufacturing Unemployment Rate
Shenandoah Valley Region	\$65,933	\$49,502	17%
Northern Sub-Region	\$64,771	\$51,926	17%
Central Sub-Region	\$68,033	\$48,152	17%
Southern Sub-Region	\$52,438	\$45,974	16%
Virginia	\$74,166	\$68,372	8%
United States	\$84,617	\$66,902	10%

Source: Emsi 2019.3

# MANUFACTURING EMPLOYMENT

## Top Companies Posting Manufacturing Positions

Company	Unique Postings Dec 2018-Dec 2019	Median Posting Durations Dec 2018-Dec 2019
Merck & Co., Inc.	364	36 days
American Woodmark Corporation	228	61 days
Thermo Fisher Scientific Inc.	176	54 days
LSC Communications, Inc.	157	33 days
Packaging Corporation of America	150	38 days
HP Hood LLC	133	54 days
Perdue Farms Inc.	126	31 days
Quad/Graphics, Inc.	121	37 days
Masonite International Corporation	110	37 days
Newell Brands Inc.	109	35 days

Source: Emsi 2019.3; Virginia Employment Commission, Economic Information Services

# MANUFACTURING EMPLOYMENT

## Top Manufacturing Job Occupations Posted

Occupation	# of Postings
First-Line Supervisors of Production and Operating Workers	353
Industrial Engineers	334
Heavy and Tractor-Trailer Truck Drivers	271
Maintenance and Repair Workers, General	184
Stock Clerks and Order Fillers	167
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	145
Helpers--Production Workers	115
Automotive Service Technicians and Mechanics	111
Industrial Production Managers	104
Production Workers, All Other	100

Source: Emsi 2019.3; Virginia Employment Commission, Economic Information Services

# MANUFACTURING EMPLOYMENT

## Top Manufacturing Job Titles

Manufacturing Job Titles	Number of Postings
Commercial Driver's License (CDL) Drivers	170
Maintenance Mechanics	118
Sales Representatives	105
Production Supervisors	102
Retail Sales Associates	93
Machine Operators (Production)	91
Maintenance Technicians (Installation, Maintenance, and Repair)	87
Truck Drivers	79
Press Operators	57
Material Handlers (Transportation and Material Moving)	57

Source: Emsi 2019.3; Virginia Employment Commission, Economic Information Services



# TOP MANUFACTURING SKILLS

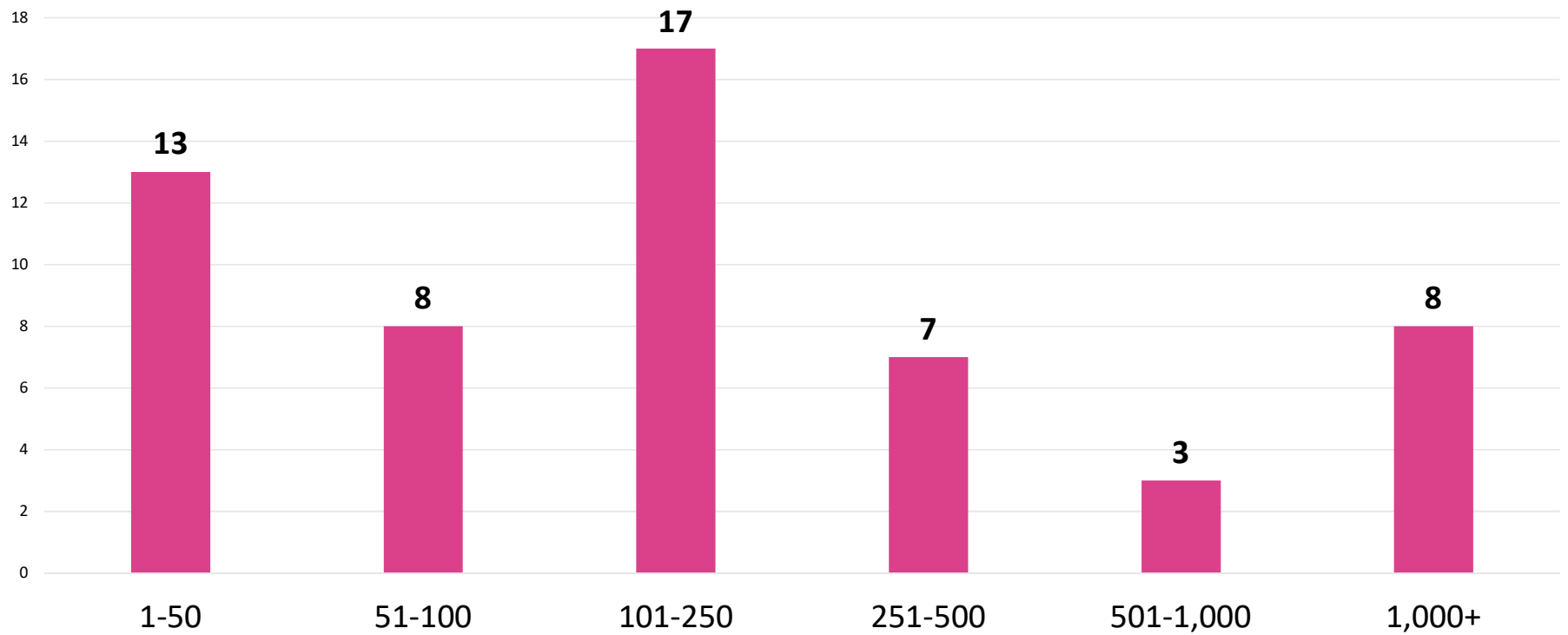
Top Hard Skills	Top Soft Skills
Packaging & Labeling (9.1%)	Management (23.7%)
Auditing (8.6%)	Operations (23.1%)
Good Manufacturing Practices (8.2%)	Communications (20.1%)
Warehousing (7.3%)	Leadership (19.1%)
Continuous Improvement Process (6.6%)	Sales (18.0%)
Forklift Truck (6.3%)	Problem Solving (16.4%)
Personal Protective Equipment (5.8%)	Customer Service (15.7%)
Palletizing (5.2%)	Troubleshooting (12.7%)
Corrective & Preventive Action (5.1%)	Microsoft Office (10.4%)
Automation (4.9%)	Computer Literacy (9.9%)

Source: Emsi 2019.3

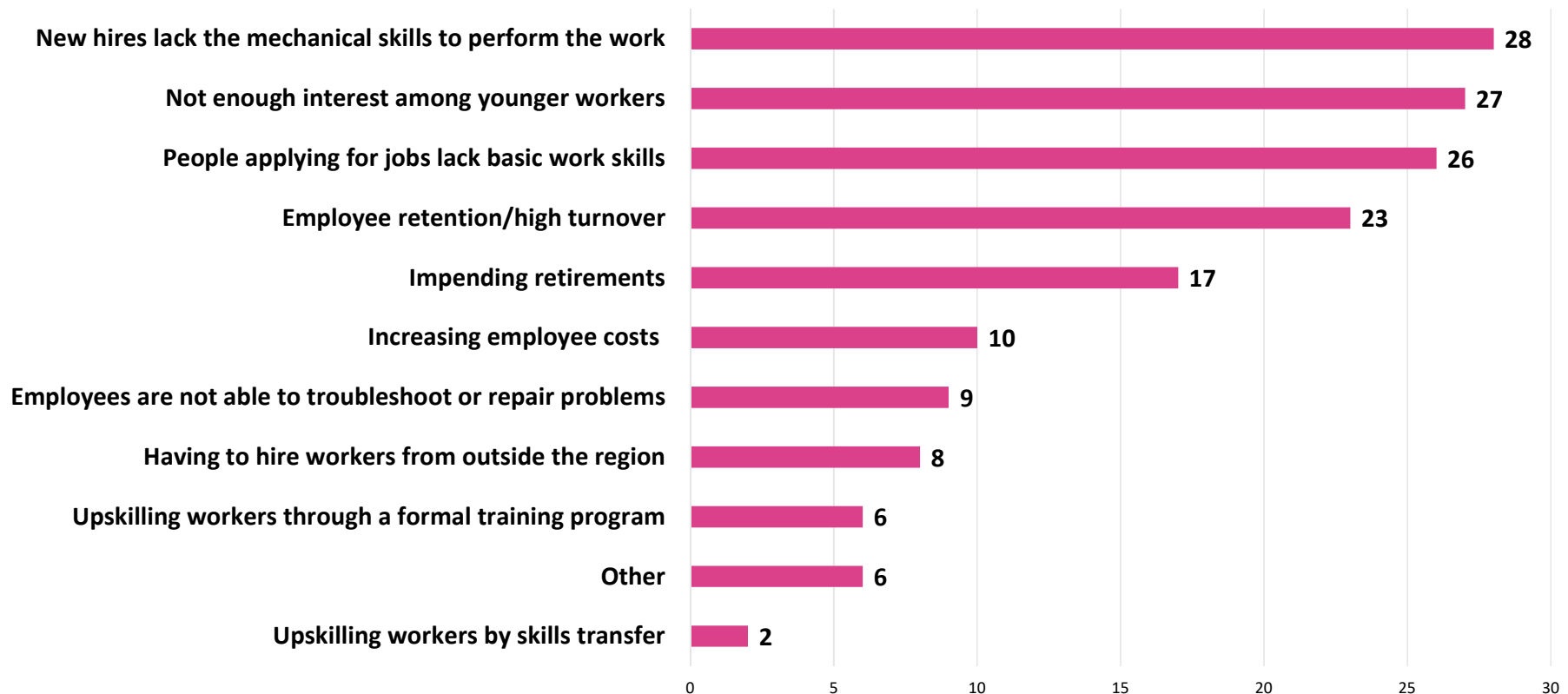
# MANUFACTURER SURVEY

An analysis of online survey findings from regional manufacturers.

# EMPLOYMENT SIZE



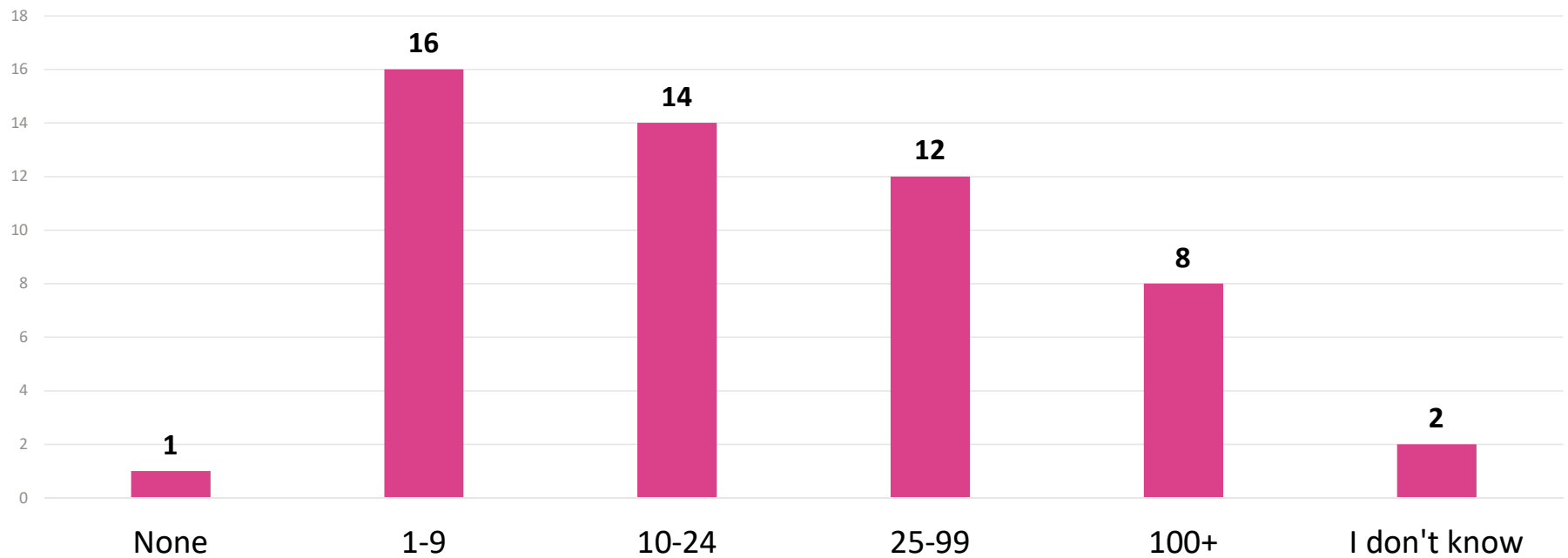
# PRESSING WORKFORCE ISSUES



# HARDEST-TO-FILL POSITIONS

Entry Level/Support	Skilled Trade	Technical	Professional
Light Equipment Operator (5)	Electrician (8)	Engineers (3)	Management (3)
Operator (3)	Maintenance (7)	Operators (3)	Electrician (1)
Production (2)	Welder (7)	Others (1)	

# NUMBER OF NEW HIRES ANNUALLY



# MANUFACTURING SKILLS

Top Identified Technical Skills	Count
Electrical	11
Experienced Trade Skills	9
Troubleshooting	8
Mechanical	6
Machining	5
Light Equipment	4
Logistics	4
Maintenance	4
Programming	4
Plumbing & HVAC	4
Welding	4

# MANUFACTURING SKILLS

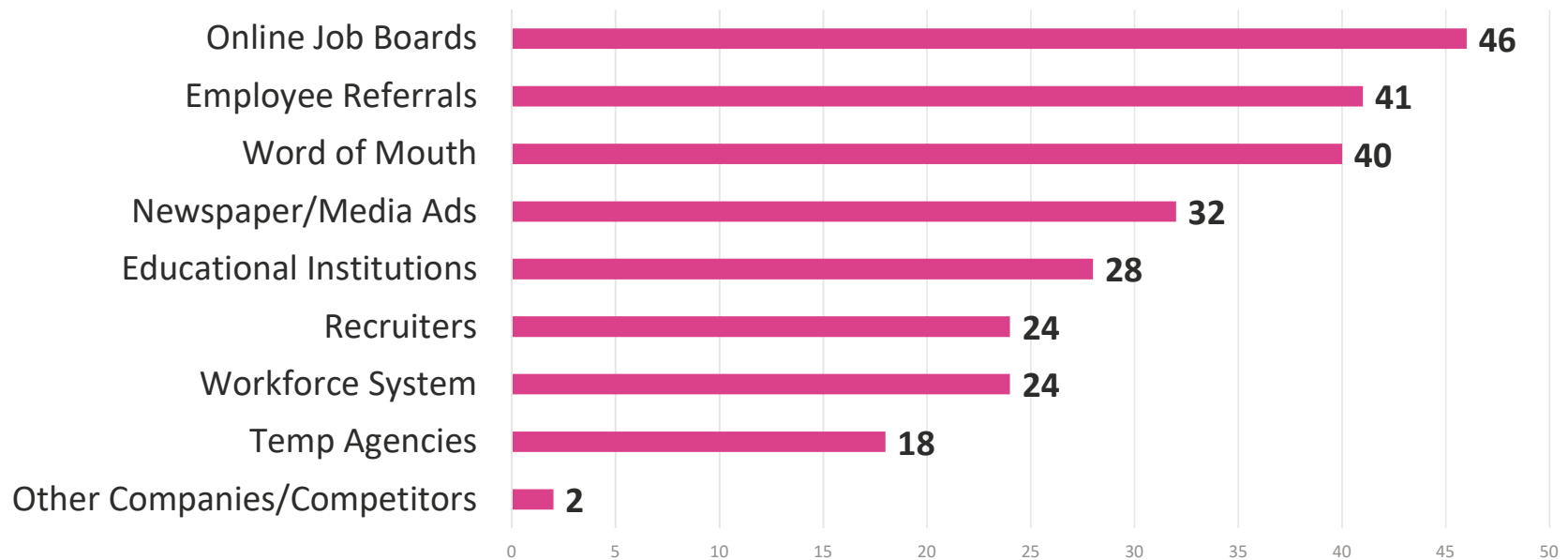
Difficult-to-find Skills	%
Critical Thinking	89%
Dependability & Reliability	85%
Problem Solving	77%
Initiative	74%
Decision-Making	72%
Planning & Organizing	49%
Professionalism	49%
Drug-Free	38%
Adaptability	38%
Respect	37%
Integrity	35%

Easy-to-find Skills	%
Drug-Free	21%
Teamwork	15%
Customer-Centric	12%
Communication	12%
Adaptability	12%
Respect	11%
Professionalism	6%
Integrity	6%
Initiative	3%
Critical Thinking	3%
Others	0%



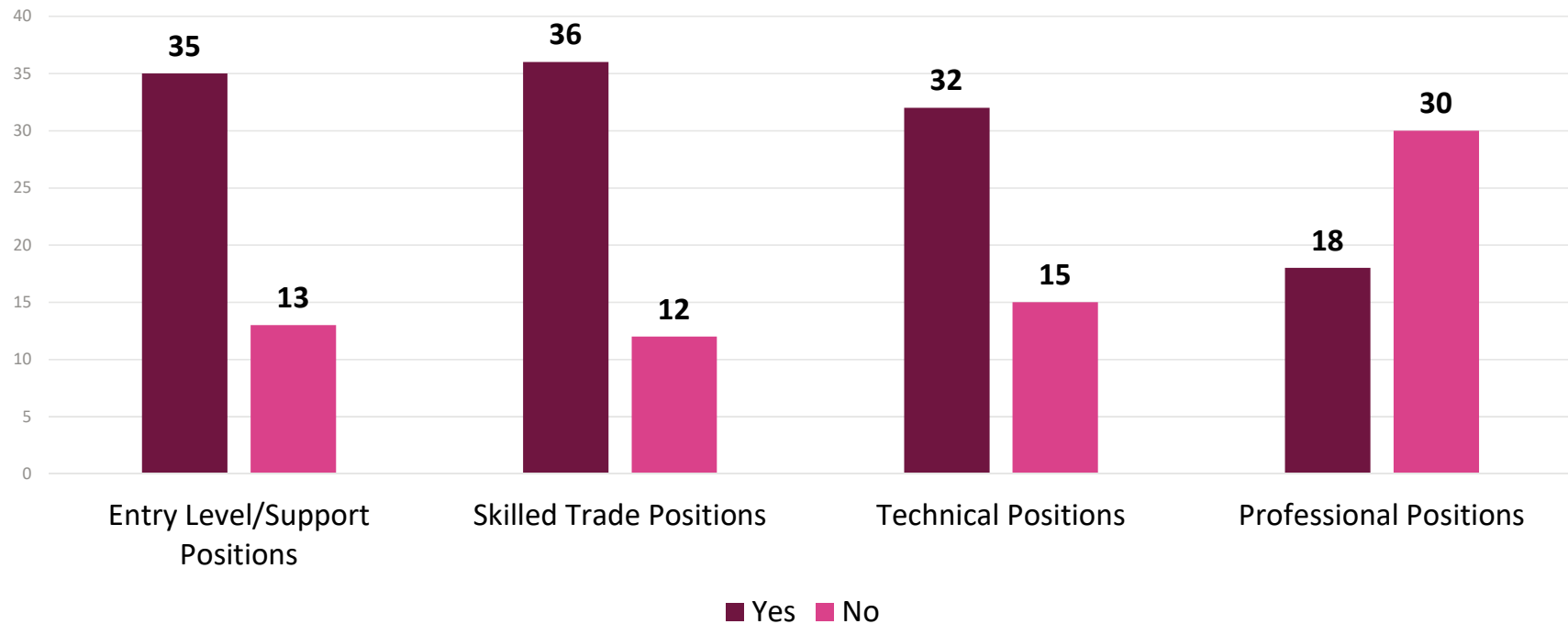
# TALENT RECRUITMENT

Which resources are manufacturers using to recruit talent?



# TALENT RETAINMENT

Retainment Difficulty by Position Type



# WORK-BASED LEARNING

Type of Work-Based Learning Program	% of Manufacturers Offering Program	Effectiveness of Work-Based Learning Program	
		# of Effective Responses	# of Not Effective Responses
On-the-Job Training	36%	24	8
Apprenticeships	28%	16	9
Paid Internships	19%	10	13
Job Shadowing	16%	3	15

# WORKFORCE SUCCESSION

Challenges Faced By Employers from Exiting Workforce	Not-at-all or Somewhat Challenging	Challenging or Very Challenging
Innovative Ideas	14	12
Mentoring Opportunities	14	13
Lack of Leadership	13	14
Qualified Workers w/Necessary Skills	5	29
Information Sharing	15	12

# FOCUS GROUPS

An analysis of manufacturer focus group findings in the Shenandoah Valley Region.

# **TALENT ATTRACTION, DEVELOPMENT, & RETENTION**

- Talent Attraction Strategies
  - Local Newspapers
  - Social Media (LinkedIn, Facebook)
  - Word-of-Mouth
  - Referrals
  - Online Job Posting Platforms
  - Temp Agencies
  - Radio Ads
  - Billboards



# TALENT ATTRACTION, DEVELOPMENT, & RETENTION

- Manufacturers expressed need for a *Talent Attraction Initiative*
  - Challenges with recruitment to their company AND to the region
- Minimal engagement by manufacturers with the local workforce development system
  - Engagement typically takes the form of participation at job fairs, recruitment, and training grants as well as the Valley 2 Virginia (V2V) grant
- Manufacturers have an awareness of exiting workforce, but have not formalized succession plans

# WORK-BASED LEARNING

- Registered Apprenticeship Programs include:
  - Industrial Maintenance
  - Industrial Manufacturing Technician
  - Machinist
  - Fabricator
  - Electrician
- Reasons for not yet becoming a registered apprenticeship sponsor (as identified by focus group participants):
  - Low unemployment economy (2019)
  - Time commitment & capacity concerns



# REGIONAL BEST PRACTICES

- Vacation-matching
  - Capture experienced workers who may not leave their current employment due to amount of vacation time they've collected
- Targeted recruitment of women into manufacturing
  - Identify childcare options and supportive services
- Modified work schedules
  - Work/life balance
  - Leverage region's outdoor recreational activities
  - Scaling back production to 4 days per week during slow season

# RECOMMENDATIONS

Leveraging findings from this study to better position the Shenandoah Valley Workforce Development Board to serve manufacturers and the manufacturing workforce.

# TALENT ATTRACTION

- Targeted recruitment during low-unemployment
  - Individuals w/disabilities
  - Re-entry population
  - Non-English-speaking workers
- Leverage regional assets
- Develop a region-wide unified marketing strategy that brands the region as THE place to live and work



## IMPROVED MESSAGING OF REGISTERED APPRENTICESHIP PROGRAMS

- Simplify messaging
  - Promote SVWDB's expertise and capacity to support registered apprenticeship programs
- Share success stories
  - Registered apprenticeship sponsors
  - Apprentices



# SUCCESSION PLANNING SUPPORT

- Partner with manufacturers to develop a “Succession Plan Toolbox”
  - Step-by-step guide for planning
  - Captures common skills/training
  - List of training services provided through the Virginia Workforce Centers



# PROMOTE CAREER AWARENESS

- Promote the regional workforce
- Leverage partnerships of K-12 school systems to promote career awareness
  - Classroom presentations
  - Job fairs
  - Employer networking
  - Set workforce expectations



# QUESTIONS?

Kristopher Subler  
[Ksubler@tpma-inc.com](mailto:Ksubler@tpma-inc.com)