

VISION 2020

Closing Virginia's Skills and Career Planning Gaps by 2020

The State of U.S. Manufacturing Today

>> OVER THE NEXT DECADE

An estimated 3.5 million manufacturing jobs will need to be filled
2 million of those jobs may go unfilled because of the skills gap in US workers¹

>> HIRING



Virginia Manufacturing projects a need for 4,846 workers in the next 12 months²

It takes 70 DAYS AVG

to fill an open production position

59%

59% of Virginia companies expect hiring qualified workers to be moderately to extremely difficult²

>> WHAT AMERICANS BELIEVE ABOUT MANUFACTURING

50% think MFG jobs are interesting and rewarding⁴

30% believe school systems encourage students to pursue careers in MFG⁴

50% believe a MFG career provides good income relative to other industries⁴

68% indicate that degree programs or certification for MFG skills training would increase interest in MFG careers⁴

90% believe it's very important for economic prosperity⁴

1 out of 3 parents would encourage their children to pursue a career in MFG⁴

3 out of 4 believe MFG jobs are the first to be moved to other countries⁴

>> U.S. MANUFACTURERS ARE...

75%

Reporting severe to moderate shortage of skilled workers

11%

Facing reduced earnings due to production cost increase & revenue loss from skills shortages

93%

Predicting future talent shortages due to retiring Baby Boomers³

90%

Recognizing that if the industry is more appealing, it could greatly impact future talent shortages³

50%

Realizing it takes a variety of sources to find the right talent³

(word of mouth, staffing agencies, online listings, external search firms, tech schools and community colleges)

Our Goals

\$750,000

Raise a minimum of \$250,000/year for 3 years

\$3,864,375
Projected Return on Investment (ROI)

Close the industrial skills and career planning gaps for Virginia Manufacturing in 2020 and beyond, plus produce a workforce that will position the industry for future success.

How will VMA/MSI spend the money?



Hire top talent to sustain program development, management, and partner/customer support for Dream It! Do It! Virginia and MSI.

Expand Dream It! Do It! Virginia (DIDIVA) Manufacturing Technology Summer Camps by 100%

16 camps

TO SERVE

240 students



Increase Advanced Manufacturing Career Coaches at Virginia Community Colleges by 100%

>> ONLINE TOOLS



Increase DIDIVA Career Information System users by 50% to

24,000 users

www.dreamitdoitvirginia.com

>> MSI Academic and Workforce Partners in Virginia

- Workforce Training Center - 3
- High Schools and/or Technical Centers - 57
- Middle Schools - 2
- Post-Secondary Institutions - 22

84

Grow Academic and Workforce Partner network by 100% for over 200 institutions by 2018.

200+

The Manufacturing Skills Institute (MSI) provides needed education and skills training for careers in advanced manufacturing by offering world-class training programs delivered by MSI master trainers and MSI academic and workforce partner institutions.

Academic and workforce partners include high schools, community colleges, career one-stops, public libraries, universities and career and technical education centers. The MSI provides access to training programs, delivered in partnership with our academic and workforce partners, to increase the manufacturing capacity of communities throughout the United States.

The Manufacturing Technician Level 1 (MT1) is the MSI's flagship credentialing program. It provides a proven return on value/investment for manufacturers by reducing employer hiring costs, increasing the pool of qualified applicants and enhancing the baseline skills of existing workers to increase productivity and efficiency.

How will manufacturing businesses benefit?

>> HIRING COST SAVINGS

\$505m

Estimated 10-year costs to hire 66,952 MFG workers, without industry certification pipeline in place.

\$252.5m

Estimated 10-year costs to hire 66,952 MFG workers, with industry certification pipeline in place.

2016 2018 2020 2022 2024 2026

Industry certifications (like the ones provided by MSI) can cut the costs of Virginia industry to hire MFG workers over the next decade by 50%⁵

>> RETRAINING COST SAVINGS



Industry certifications can reduce incumbent worker retraining cost

\$1000 per employee

>> PROCESS IMPROVEMENT SAVINGS



\$1.5

million cost-avoidance generated by 30 corporate process improvement projects

Partner States

FL, IO, KS, MS, NV, WV, OR, MI, VA

Interested States

TN, NY, OH, WI, CA, AL, LA, SC, TX, MN, PA, NJ, IL, MD, IN, OH, MA, WA, CT, NC, MD, MS, UT, NM, NE

MT1 Certification Real World Results

Micron

Memory and storage solutions company maximized manufacturing efficiency

\$450,000/year
non-risk assessed savings

- MT1 provided skills for employees to stay competent and relevant, a means for continuous training of Production Staff & minimized turnover
- MT1 certification used as a hiring requirement, provided MT1 training statistics and on-the-job training profiles



Packaging and containers supplier used a custom MT1 training program to increase technical skills of current workforce to support a \$6 million company expansion



18%

average skills improvement post MT1 training



Increased computer literacy through blended training delivery format (instructor-led and online)

PhilipMorrisUSA

Cigarette manufacturer created a recruitment and training process to address expected retirement of key workers in the current workforce and would use the MT1 certificate program as its hiring pipeline



17%

average skills improvement post MT1 training

Production Team Leadership and Human Resources are working together to create new hiring policies and career advancement opportunities based on the MT1 certificate program.

Industry credentials simplify the hiring process and they save us money in overtime and lost productivity. Employees participating are more knowledgeable and confident in manufacturing operations. Improved hiring, on-boarding and job specific training has translated into improved safety performance and productivity.

— DuPont Protection Systems, Richmond, VA



Virginia Industry Foundation

MSI



Sources

¹ DeLoitte, The Skills Gap in US Manufacturing, <http://www.themanufacturinginstitute.org/~media/827DBC76533942679A15EF7067A704CD.ashx>, 2015.

² VEC, VA Job Vacancy Survey, https://virginiainmi.com/content/pdfs/VEC%202016_FINAL_June%2020.pdf, 2016.

³ DeLoitte, The Skills Gap in US Manufacturing, <http://www.themanufacturinginstitute.org/~media/827DBC76533942679A15EF7067A704CD.ashx>, page 13, 2015.

⁴ Manufacturing Institute, <http://www.themanufacturinginstitute.org/Research/Public-Perception-of-Manufacturing/~media/F791549028A34738AEEAED9BC8107338.ashx>, 2014.

⁵ Manufacturing Skills Institute, www.costofhire.com, 2016.

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