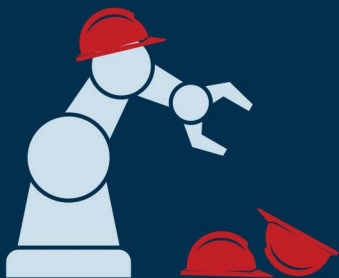


# Manufacturing Myths – Debunked!

- THE TRUTHS ABOUT THE INDUSTRY TODAY -

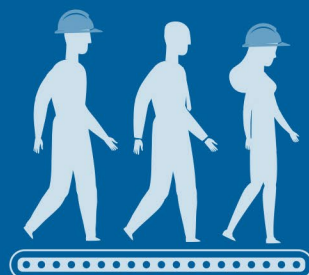
## Myth #3

Automation will eliminate jobs.



## Truth

Jobs are changing, and new skills will be needed along with traditional expertise.



### AUTOMATION AND JOBS



**“The evidence suggests structural unemployment will not increase due to automation.”** (Information Technology & Innovation Foundation)



**“These disparate findings suggest that the main impact of automation in the near future may be to cause a major reallocation of jobs.”** (VoxEU.org/CEPR)



Automation helps the U.S. compete internationally, and the more successful it is, the more jobs will result.

Jobs Displaced by Automation:

75M

Net Gain

Job Growth in New Roles:  
(driven by new technology and automation)

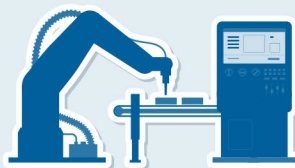
133M

One projection from 2018\* says that by 2022, **133 million new jobs (worldwide) will be created**, more than offsetting the 75 million displaced.

\*Pre-Covid projection of global non-agricultural employment based on World Economic Forum survey

Automation is changing the way manufacturing works:

Reduced Labor — Tasks being automated



- + Routine
- + Repetitive
- + Predictable

Increased Labor — Tasks that require humans



- + Problem Solving
- + Adaptability
- + Creative Thinking

Jobs are increasing in:



- + Data analytics
- + AI and machine learning specialists
- + Software and application development

### AUTOMATION AND HUMAN SKILLS



**“Many manufacturers today are turning toward automation to supplement the low-skilled jobs they cannot fill and instead focus their existing workers on jobs that are either higher skilled or require uniquely human skills.”** (Deloitte and The Manufacturing Institute)



**“Nearly 70% of manufacturers said they are creating or expanding training programs for their workforce.”** (Manufacturing Institute)

### HOW THE MEP NATIONAL NETWORK HELPS



The New Mexico Manufacturing Extension Partnership helped Navajo Spirit, a manufacturer of Native American-inspired clothing, **increase production and sales** while **creating jobs** by **integrating automation and retraining employees**.



[www.nist.gov/mep/mep-national-network](http://www.nist.gov/mep/mep-national-network)  
1-800-MEP-4MFG

Sources: US Bureau of Economic Analysis; The Manufacturing Value Chain Is Much Bigger Than You Think!, Daniel J. Meckstroth, PhD, Vice President and Chief Economist, MAPI Foundation, February 2016; Gray.com, Debunking Myths About U.S. Manufacturing; Myth-Busting American Manufacturing, MAPI Foundation.org, 5/18/17; US Census Bureau, International Trade in Goods and Services; US Bureau of Labor Statistics, Current Employment Statistics, February 2021; Blog Thomasnet.com, 4 Myths About American Manufacturing; Team Thomas, 9/18/18; California's Manufacturing Industries, Institute for Applied Economics, June 2014; Statista.com, Total employed persons in the United States in 2020, by industry, January 2021; US Bureau of Labor Statistics, Employer Costs for Employee Compensation, National Compensation Survey, 2020; US Bureau of Labor Statistics, Occupational Employment Statistics Survey; World Economic Forum.org, 4 Myths About Manufacturing in the Fourth Industrial Revolution, Ian Cronin, Adrian Widmer, and Diego Hernandez Diaz, 2/4/19; California's Manufacturing Network, The 3 Biggest Myths About Advanced Robotics in Manufacturing, 2/13/18; Autonomous Manufacturing, What Is Industry 4.0? Dispelling 4 Common Myths, 1/15/19; CNBC.com, Manufacturers to spend \$26.2 billion on 'upskilling' in 2020 to attract and keep workers, 1/17/20; KentuckianaWorks, What Manufacturing Can Teach Us about How Automation Impacts Jobs, Kathleen Boller, 6/18/19; VoxEU.org/CEPR, Automation and Jobs: When Technology Boosts Employment, James Bessens, 9/12/19; 2018 Deloitte and The Manufacturing Institute skills gap and future of work study; The Manufacturing Institute Training Survey, 1/17/20; MEPNN FY2020 Impacts Overview; Nist.gov/mep/mep-national-network/manufacturing-videos, Nist.gov/mep/manufacturing-day, Nist.gov/mep/successstories, Bringing Innovation to Rural Clothing Manufacturer, 2020; Nist.gov/mep/successstories, Port Chilkoot Distillery Maximizes Energy Efficiency, 2020