Manufacturers contributed $2.03 trillion to the economy.
For every $1.00 spent in manufacturing, another $1.32 is added to the economy.
Manufacturing supports an estimated 17.4 million jobs in the United States—about one in six private-sector jobs.
Manufacturers in the United States perform two-thirds of all private-sector R&D.
Taken alone, manufacturing in the United States would be the 8th largest economy in the world.
As companies continue to embrace robotics and other types of automation and grow more data-driven, their success will largely hinge on shaping and building a workforce that can best exploit such technological advancements.

PARTICULAR CONSIDERATIONS FOR RURAL MANUFACTURING

- Some of the mainstays of the rural economy are highly cyclical
  - Oil and gas equipment and extraction
  - Food processing
- “Company towns” are especially vulnerable
- Balance between wage rates and need for labor availability
- Pathways to careers are essential to grow and retain local talent
- Incentives for plant location must include a talent pipeline
The Problem

Every day, we try to combat the misperceptions. Today’s manufacturing is not your grandfather’s manufacturing.

We lose good, talented workers due to the misperceptions

3 out of 10 parents would encourage their kids into manufacturing as a career
Out of Inventory
Skills Shortage Threatens Growth for US Manufacturing

The skills gap is real.
And it’s costing manufacturers.

COSTING US 11% OF POTENTIAL EARNINGS

12% increase in overtime
+ 8% increase in cycletime
+ 10% increase in downtime

MANUFACTURERS NEED NEW WORKFORCE STRATEGIES

Top sources for new employees

Word of mouth 40%
Staffing agencies 40%
Online Job Boards 32%
Newspaper Ads 26%
Company recruiting function 18%
External search firms 15%
Company Websites 14%
Tech schools 8%
Community colleges 6%
The Solution

NATIONAL LEADERSHIP – LOCAL ACTION
PUBLIC – PRIVATE PARTNERSHIP

GOAL 1: CHANGE THE PERCEPTION OF CAREERS IN MANUFACTURING
2013 REACH

Reached:

- 250,000 students
- 50,000 parents
- 11,000 educators

In 31 states

DIDI AND RURAL AMERICA

- NEBRASKA MANUFACTURING
- DREAM IT LEARN IT DO IT
- NORTH GEORGIA TECHNICAL COLLEGE
- CEDA
- DREAM IT DO IT MAINE

BRIDGING THE SKILLS GAP

- GET SKILLS TO WORK
GOAL 2: RE-ESTABLISH THE U.S. AS THE GLOBAL LEADER OF MANUFACTURING EDUCATION.

We are developing quality education through

SKILLS CERTIFICATION SYSTEM
WOULDN’T IT BE NICE IF...

You knew a job applicant had baseline skills in:

- Reading & Writing
- Applied Math
- Locating Information (like in a table or blueprint)

WOULDN’T IT BE NICE IF...

You knew a production applicant had baseline skills in:

- Safety
- Quality Practices & Measurement
- Manufacturing Processes
- Production

WOULDN’T IT BE EVEN BETTER IF...

Career Readiness Certificate
WOULDN’T IT BE EVEN BETTER IF...

You knew a production applicant had baseline skills in:

- Safety
- Quality Practices & Measurement
- Manufacturing Processes
- Production

Certified Production Technician Certification

WHAT CAN YOU DO?

- Align manufacturing programs with industry-based standards and certifications
- Support faculty development, including certifying instructors
- Rally employers, manufacturing associations, workforce and economic development behind a skilled workforce agenda

http://www.themanufacturinginstitute.org/
ONLINE PROGRAMS AND BLENDED LEARNING

- Online training and certification, including MSSC
- Mobile training labs
- Certified welding inspectors

MODELS OF ACTION FOR RURAL WORKFORCE DEVELOPMENT

- CPT in use in workforce development since 2006
- Embedded the CPT certification within the advanced manufacturing degree at 10 regional campuses in 2007
- CPT now in place across non-credit AND credit pathways, forming a universal core for all manufacturing programs
- Increasingly adopted other certifications (NIMS, AWS, CLT, ASQ)
- Created a climate of demand for the certification (pull system)

IVY TECH
Mankato, MN
Need for machine operators and an earn-and-learn pathway to associate’s degree and higher-level employment

SOUTH CENTRAL COMMUNITY COLLEGE

FAST-TRACK TO JOBS

- Providing workers and students with fast-track skills for employment
- Providing manufacturers just-in-time talent from the lab/classroom to the shop floor
- Accelerating and expanding lifelong learning opportunities for a flexible, technical workforce

GAINING SKILLS FOR TODAY’S AND TOMORROW’S MANUFACTURING

- Personal effectiveness: show up on time, ready for work
- Essential academic skills in reading, writing, math, and using and locating information: communicate effectively and interpret key instructions
- Workplace skills: work in teams and problem solve

Hands-on experience + practical application of:

- Safety
- Precision Measurement Tools and gages
- Quality Assurance
- Material Composition
- Engineering Drawings, Symbols & Notation
- CNC

Nationally recognized, industry-recognized credentials

Right Skills Now for Manufacturing
High School Students Earn College Credit – SB155

- Number of High School Participants (Headcount)

- College Credit Hours Earned by High School Students

- Industry Credentials Earned

Legislative Support for AO-K

- 2014 legislative session included:
  - AO-K Proviso - $500,000 for tuition support
  - GED Accelerator - $1.9M for incentives for colleges
    - $500/student for GED attainment
    - $170/student for cost of taking GED exam
    - $1000/student for career technical education credential
Employer Engagement Supports Industry Credential Attainment

- Three levels of engagement: Supporter, Partner, Champion
- All levels begin with Kansas Department of Commerce Skills Pledge
- Higher level of recognition follows more “engaged” use of industry credentials

Workforce AID

IMPACT ON THE KANSAS ECONOMY IN 2014 (FEB-OCT)

- 12 training projects across the state
- Nearly 100 participants completed training with industry credentials/college credit
- 92% with full industry credentials = employed
- Average starting wage = $14.44+/-
- Over $2,500,000 impact on the Kansas economy in just nine months
GOAL 3: ADVOCATE FOR EDUCATION AND JOB TRAINING POLICIES THAT STRENGTHEN THE U.S. MANUFACTURING WORKFORCE

**Policy**

**INdiana**
- HB1003: March 2014 legislation
  - Business tax credit
  - Cooperative arrangement between the business and an educational institution for the training of students in high-wage, high-demand jobs
  - Require industry certifications
- Pending Legislation/Governor Initiatives:
  - Commission for Higher Education aims to achieve a 60% postsecondary education attainment rate, or an additional 3,784 degrees and credentials annually, by 2025

**Kansas**
- SB155 (2012)
  - Individual career plan for each student grades 8-12
  - CTE incentive program awards $1,000 to a school district for each high school graduate with an industry-recognized credential in a high-need occupation
  - Free tuition for high school students to take college-level CTE courses, including night and online
**NORTH CAROLINA**

- SB402 (2013) – Students enrolled in public school CTE courses exempt from paying fees for one administration of an exam that leads to an industry certification or a credential
- Increase Access to CTE bill (2013) includes college-ready, career-ready or college-and-career ready endorsements to diplomas in 2014/15 – Students seeking a career endorsement must complete a CTE concentration, earn an industry-recognized credential
- NC Back-to-Work prepares residents facing long-term unemployment with job training, employability skills and industry-recognized third-party credentials
- Increased funds for instructor training for delivering industry credentials

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Workforce AID

- KANSAS COMPANIES
- KANSAS BOARD OF REGENTS
- STATE LEVEL
  - SINGLE POINT OF CONTACT
  - ED = Director of Workforce Training and Education
- Federal State Training Resources
- Community and Technical Colleges
- Private Resources
- SKILLED EMPLOYEES WITH INDUSTRY AND COLLEGE CREDENTIALS

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