

# Problem Resolution Through Partnership

How one community tackled the skill  
gap issue

# The Key Drivers of a Successful Manufacturing Operation



# The Manpower Crisis

**600,000 manufacturing jobs have gone unfilled during a prolonged period of high unemployment**

(Deloitte LLP)

- Why?
  - businesses cannot find workers with the basic math, science and technical competencies.
  - 67 percent of employers reported a serious or severe shortage of workers in key areas.
    - 2013 Global Manufacturing Competitiveness Index

# Employer Reported Issues with Manpower

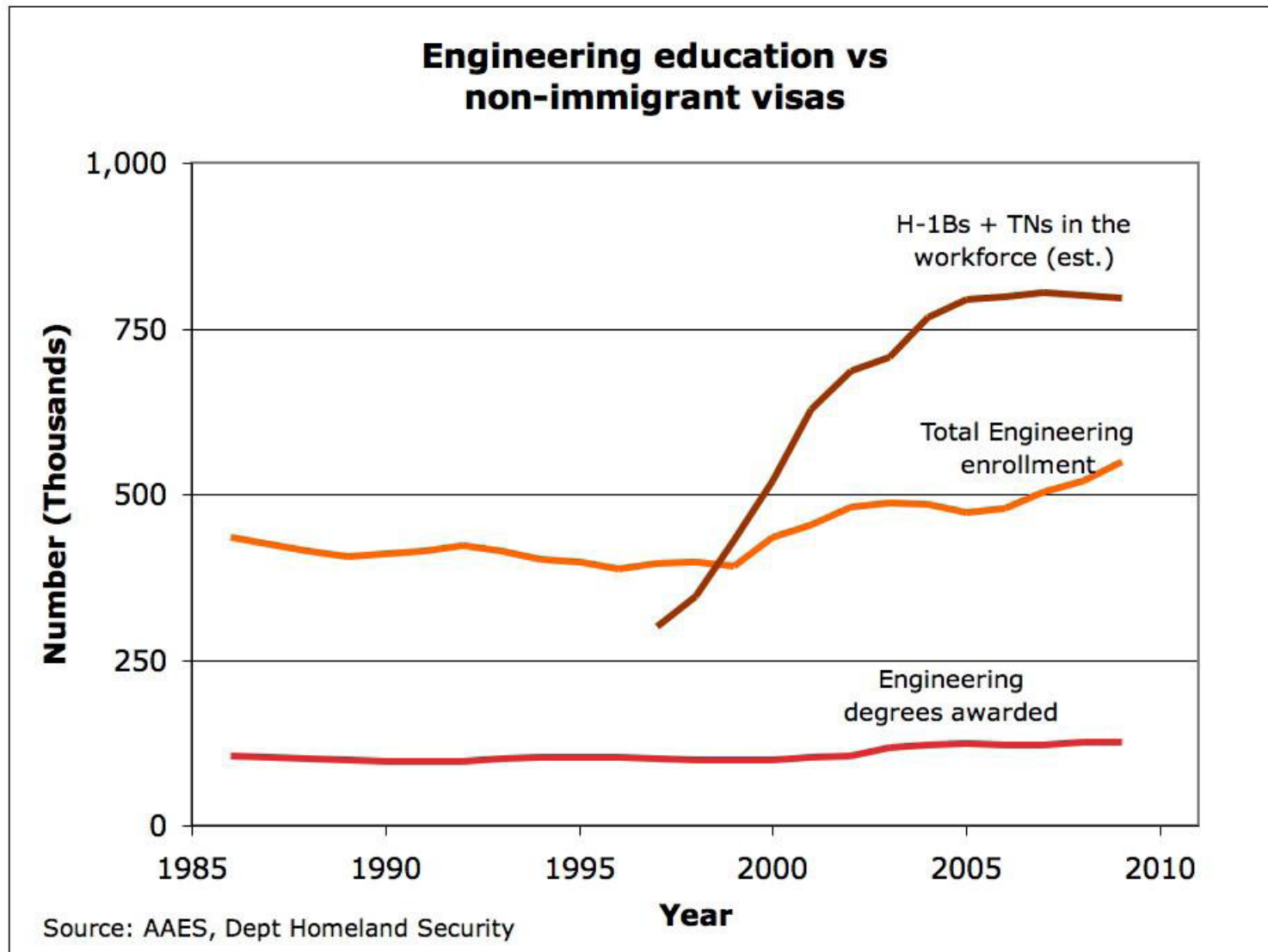
- 52 percent -- Inadequate problem-solving skills
- 43 percent -- lack of basic technical training
- 40 percent -- Inadequate basic employability skills (things like showing up to work on time)
- 36 percent -- Inadequate technology/computer skills
- 30 percent -- Inadequate math skills
- 29 percent -- Inadequate reading/writing/communications skills
- 12 percent -- Inability to work in a team environment

# Skill Gap Consequences

## **Employer response to hiring difficulties:**

- Employees work overtime (65% of firms)
- Increase recruiting efforts (51%)
- Leave position vacant (49%)
- Hire less qualified applicant (44%)

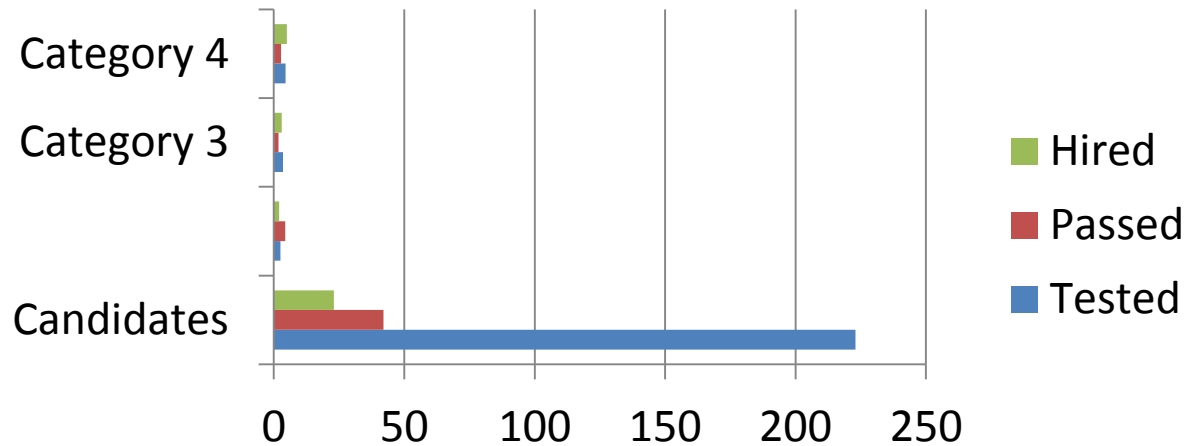
# Engineering Deficit



# Our Hiring Experience

Currently, only two out of 10 pass our 7<sup>th</sup> Grade Math Test (100% increase over 2011)

- 2012
  - 223 tested; 41 passed; 23 hired



# The Test

4. Draw a line between the decimal in the left column and the corresponding fraction in the right column.

.375

$1 \frac{1}{4}$

.250

$\frac{3}{4}$

1.25

$\frac{4}{10}$

1.5

$\frac{5}{8}$

.75

$\frac{1}{4}$

.625

$1 \frac{1}{2}$

1.0625

$\frac{3}{8}$

.4

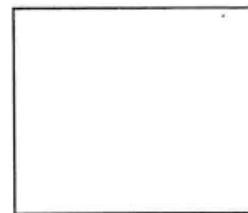
$1 \frac{1}{16}$



7.  $12'' \times 12'' \times 12''$  equals how many cubic inches?

- a. 1508
- b. 1728
- c. 1632
- d. 1748

5. Draw two lines in the box at right, one perpendicular to the other.

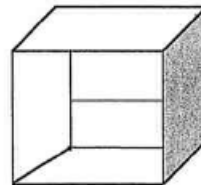


6. Draw two parallel lines in the box at right running from left to right and up about  $45^\circ$ .



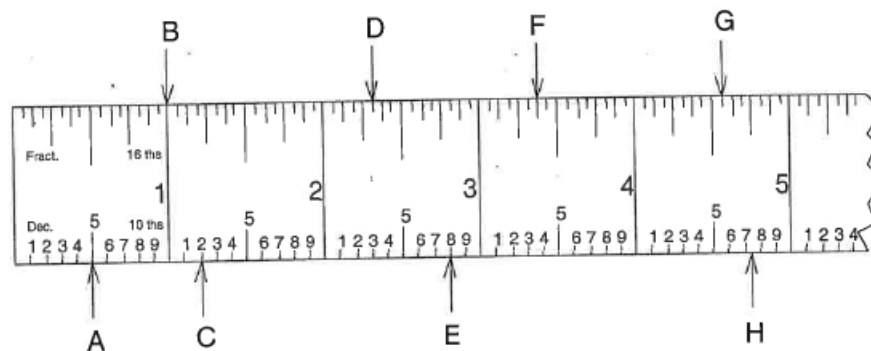
9. What best describes the figure at right?

- a. Empty carton
- b. House
- c. Dice
- d. Square



10. What is the difference between a square and a rectangle?

3. Record the tape measurement readings below.



A. \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

D. \_\_\_\_\_

E. \_\_\_\_\_

F. \_\_\_\_\_

G. \_\_\_\_\_

H. \_\_\_\_\_

# The Answer

**Public / Private Partnership**





# Skills Gap Solution



+



+



+



=



**Manufacturing Academy**

# Key Components

- Employer Engagement & Relationships
- Selection Process
- Student Support Services
- Industry Certifications
- **WA Apprenticeship & Training Council**
- **Department of Veteran Affairs**





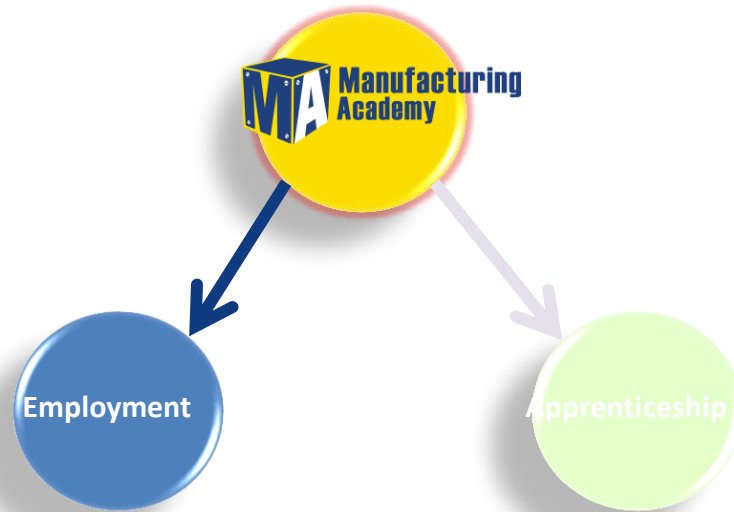
# Program Results

- 25% increase in employer engagement
- 95% completion rate
- 82% employment rate
- 5% continued on with education at community/technical college

# Secret Sauce

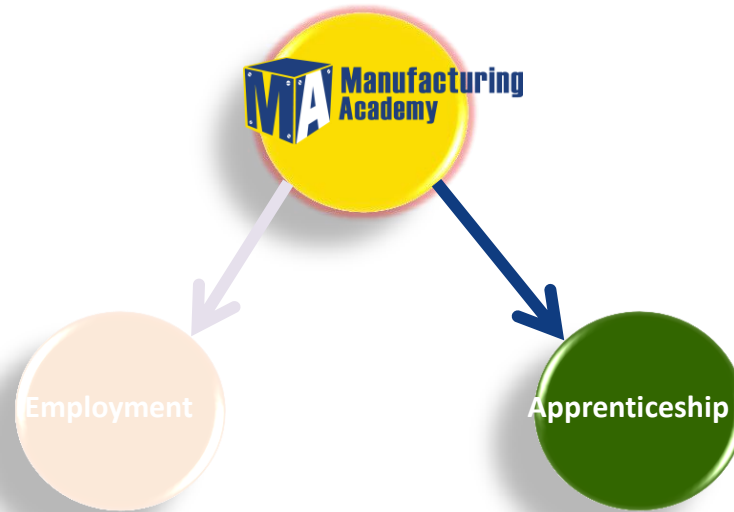
- Competitive process  
= buy in from students
- Employer driven curriculum  
= relevant essential skills
- Screening & employer involvement  
= improved placement rates
- Student support/coaching  
= key to student success
- Multiple pathways  
= many different futures

# Academy to Employment



- Competencies Match Job Requirements
- Reliable and Dedicated Graduates
- Connection to Apprenticeship Program

# Academy to Apprenticeship



- Basic Skills to begin Apprenticeship
- Increase Knowledge and Skill Base
- On-the-Job Training

# Conclusion

- Key points

- 1) The impact of the skills gap is real, and it is substantial. The manufacturing industry is expected to have a shortage of 2 million workers in the U.S. over the next decade.
- 2) The contributing factors – a shortage of workers with adequate STEM skills, the impending onslaught of baby boomer retirements and the expected industry expansion-cannot be ignored.
- 3) There isn't one specific solution to overcome the skills gap issue. Instead, a combination of strategies must be employed in concert to address current and future issues. Multiple stakeholders must collaborate to address the gaps.

# Conclusion

- Actions required by manufacturing companies:
  - 1) Rethink their talent sourcing and recruiting strategies to attract new employees, improve candidate screening practices, define clear competency models and role-based skills requirement, invest in internal and external training and development.
  - 2) Engage with local Workforce Development Councils and education stakeholders.
  - 3) Work within local communities to inform about the industry and its career options – mitigate negative perception of manufacturing.

# Want to continue the conversation?

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