

Manufacturing the Future Lesson Plan #4
Skills Shortage in the Manufacturing Industry
CD time is 10 minutes + 10-15 minutes for discussion

Lesson Objectives:

1. To understand the skills required to work in a manufacturing career.
2. To understand the earning potential for individuals working in manufacturing.
3. To understand there is a shortage of manufacturing employees and the impact this shortage will have on the future of manufacturing.

Key Points:

1. Thirty percent (30%) of the manufacturing companies in NEW will have difficulty finding skilled employees to replace employees who will be retiring in the next 10 years.
2. There remains a very high earning potential for highly skilled employees in the manufacturing industry.
3. Twenty-four (24%) percent of the jobs in NEW are in manufacturing.
4. Manufacturing is the 8th largest industry in the world.

Vocabulary: (List of words with definitions to share with students prior to viewing this segment.)

1. Highly skilled talent
Individuals that are either formally trained (4 year college or technical college degree) and/or have many years of experience.
2. Earning potential
The amount of money someone should earn in their job.
3. Skill shortage
Employers cannot find job seekers with the expertise and ability level needed to be able to perform the job duties needed for their business. There is a mismatch with the workforce that there is high unemployment, however there are also many job openings. The problem is the people looking for work are unable to be hired because their skills do not match the requirements of the employer.

Activity and/or Discussion Questions: (Select one activity or 2 discussion questions)

Activity ideas (Pick the activity of interest to your students)

1. Skype w/ instructor at a local technical college about skills needed in manufacturing and training/education provided at the college.
2. Skype or have an in-person presentation with a Human Resources Director at manufacturing company to discuss human resource needs in the future (within 10 years).

Discussion Questions (Pick the discussion questions of interest to your students)

1. Why is a solid understanding of technology an important skill for employees in manufacturing?
Answer: Understanding of technology is important to manufacturing employees because technology can magnify the effort of individuals and help them to create a greater output individually as well as a team. The use of technology assists companies in staying competitive and helps ensure local companies will be long standing in the community, thus contributing to standard of living and a stable local economy. Technology is everywhere in a company, from how you record your hours worked, to how you receive your work, how product is created and manufactured, how it leaves the facility and travels to customers.
2. What impact does the economy have on employment and potential skill shortages in manufacturing?
Answer: The economy can affect employment and skill shortages in a variety of ways. Depending on the product of a company, if it is a luxury item, when the economy struggles, the demand for the product may fall, affecting that organization the availability of work for those employed there. When work is not available individuals may lose their jobs permanently or temporary until demand for the product rises. When the economy is uncertain, organizations strive to do more with less, encouraging employees to train and master multiple areas, work smarter not harder. When hiring is slow in certain skilled trades, individuals may not feel encouraged to continue to train in those areas, many workers may choose to retrain in other areas given the opportunity and when the economy rebounds, companies end up with a skill shortage when they need them the most.
3. What are the opportunities for unskilled laborers in manufacturing?
Answer: Opportunities for unskilled labor may be available by starting at an entry level point of a company, learning from the ground up, the basics of how the company runs, what technology there is to master etc. Unskilled employees should take advantage of training opportunities and educational opportunities to make themselves valuable assets to the company. Many unskilled positions start as assistants or helpers and move forward from there.

Follow-up for students (and parents):

1. NEW Manufacturing Alliance All Star magazine (direct students to Alliance's website www.newmfgalliance.org for future reference) and/or bookmark
2. Career Cruising

3. WISCareers
4. School counselor
5. PIE/Chamber Industry Tours
6. Boys & Girls Club
7. After School Programs
8. Job Shadow
9. Youth Apprenticeship
10. Technical college in your area

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