

I ndustry Snapshots

- The manufacturing sector continues to account for 14 percent of U.S. GDP and 11 percent of total U.S. employment. Moreover, manufacturing firms fund 60 percent of the \$193 billion that the U.S. private sector invests annually in R&D. (U.S. Department of Commerce)
- Manufacturing salaries and benefits average \$65,000, higher than the average for the total private sector. Two factors in particular attract workers to manufacturing: higher pay and benefits and opportunities for advanced education and training. (National Association of Manufacturers)
- A 2005 survey of U.S. manufacturing employers found that 80 percent of respondents said that they had a serious problem finding qualified candidates for the highly technical world of modern manufacturing. (National Association of Manufacturers)

High Growth INDUSTRY PROFILE

W orkforce Issues

Training for Innovation

The capacity for innovation is the primary competitive advantage for U.S. manufacturers in the global marketplace. Therefore, manufacturers need workers who are continually focused on innovating products and services, as well as production and business processes. Workers need the basic academic, workplace and technical skills that will enable them to support the innovation requirements of an advanced manufacturing environment.

Pipeline

Too few young people consider the possibility of manufacturing careers and do not know what skills they need to succeed. Similarly, students do not always graduate from high school equipped with the necessary skills or knowledgeable about manufacturing career opportunities.

Capacity Building

Education providers need the curriculum, equipment, qualified instructors and other tools necessary to train the highly skilled workforce that advanced manufacturers need. Educators need to define the specific competencies and implement the career ladder and lattice models that will enable workers to continually enhance their skills.

S kill Sets

(Source: National Association of Manufacturers "2005 Skills Gap Report—A Survey of the American Manufacturing Workforce")

- Technical skills are essential to the future of Advanced Manufacturing. According to a 2005 NAM survey on the advanced manufacturing workforce, 53 percent of respondents listed technical skills as the greatest need over the next three years. Additional skill sets include the ability to work in teams (47 percent), strong computer skills (40 percent), the ability to read and translate diagrams and flow charts (39 percent) and strong supervisory and managerial skills (37 percent).
- Jobs in the Advanced Manufacturing industry require a complete understanding and mastery of a variety of skill sets. Workers need the *production* skills to set up, operate, monitor and control the manufacturing process. They need the *process design and development* skills to continuously improve production processes. They need skills in *health and safety* to maintain a safe work environment. They need skills in *maintenance, installation* and *repair* to maintain and optimize complex equipment and systems. They need knowledge of *supply chain logistics* in order to plan and monitor the movement and storage of materials and products. Finally, manufacturing workers need skills in *quality assurance* and *continuous improvement* to ensure that products and processes meet quality requirements.

E TA in Action

In June 2003, ETA announced the President's High Growth Job Training Initiative to engage businesses with local education providers and the local/regional workforce investment system to find solutions that address changing talent development needs in various industries.

In October 2005, the Community-Based Job Training Grants were announced to improve the role of community colleges in providing affordable, flexible and accessible education for the nation's workforce.

ETA is investing more than \$260 million in 26 different regions across the United States in support of the

WIRED (Workforce Innovation in Regional Economic Development) Initiative. Through WIRED, local leaders design and implement strategic approaches to regional economic development and job growth. WIRED focuses on catalyzing the creation of high skill, high wage opportunities for American workers through an integrated approach to economic and talent development.

These initiatives reinforce ETA's commitment to transform the workforce system through engaging business, education, state and local governments and other federal agencies with the goal of creating a skilled workforce to meet the dynamic needs of today's economy.

I nvestments

ETA has invested \$117,540,137 in the advanced manufacturing industry. This includes 31 High Growth Job Training Initiative grants totaling \$74,944,990 and 23 Community-Based Job Training Grants totaling \$42,595,147. Leveraged resources from all of the grantees total \$178,268,678.

R esources

For additional background information about the industry and details on the grants, information about employment and training opportunities and workforce development tools for employers, educators and workforce professionals, please visit: www.doleta.gov/BRG, www.careervoyages.gov, www.careeronestop.org, and www.workforce3one.org.