

<http://www.areadevelopment.com/skilled-workforce-STEM/December-2014/next-generation-of-skilled-manufacturing-workers-22998661.shtml>

## In Focus: New Blood Needed For Manufacturing

If there is to be a sustained U.S. manufacturing resurgence, firms must act in consortia to grow regional industrial ecosystem resources, just like aircraft engine manufacturers and suppliers are doing in the Connecticut River Valley. But, to preserve manufacturing's most precious resource - skilled workers - our thinking, and educational policies, must be revised on a national level.

### **Douglas B. Rose, President, AeroGear (Directory 2015)**

Manufacturing is steadily going “grey,” and there seems to be a worrisome dearth of new workers with which to replace aging, retiring workers — particularly in aerospace, my segment of the industry. I believe it would be a great shame, and an economic catastrophe, if manufacturing sectors in the U.S. were to disappear because of a loss of interest in those jobs.

While it is true that unskilled jobs at many firms have been outsourced overseas, skilled workers remain in high demand and will be for the foreseeable future. In aerospace, just as in manufacturing in general, employees are needed across the board, from technical positions to factory floor workers to management. These are well-paying jobs that lead to solid, long-term careers in a proud workforce.



I believe (the greying of the workforce) is a problem not just in aerospace manufacturing, but also in any industry where highly skilled factory workers are needed. It is an issue that should be addressed nationally through a federal education policy revision — rather than attacked individually by any particular industry or geographic region. - Douglas B. Rose, President, AeroGear

#### **Editors Picks**

Critical Site Selection Factor #1: Availability of Skilled Labor an Acute Need

First Person: Aerospace Industry Focuses on Technological Growth and Job Retention

Closing the Gap Between Manufacturing Employers' Needs and Workers' Skills

Part of the problem in attracting young minds to these jobs is perception: middle school and high school students don't realize that manufacturing no longer necessarily means repetitive, assembly-type work in a dirty factory, but instead work in a high-tech, computer-controlled facility.

Most aerospace manufacturing companies today are clean, high-tech, and provide high-paying jobs. They use some of the latest equipment and technology, such as multi-axis mill/turn machines and 3D computer solid modeling. The high-quality, complex product that is produced requires a highly skilled, competent workforce.

Often production is performed in a team-based environment where the product is flowed through the various manufacturing processes in a line or cell. The transformation of raw material into a final product, with constant cross-training and updating of the skills involved, can be very satisfying. An entry-level position on a factory floor can lead to a key role in manufacturing engineering or quality assurance.

In Connecticut, the aerospace industry employs some 29,000 people. As a cluster, these firms often join together to support quality training in vocational schools and state colleges for this workforce. These companies regularly join to educate area legislators, and advocate for increased state resources to expand these kinds of educational opportunities and enhance the quality of the existing educational programs in manufacturing.

Several dozen manufacturers of aerospace components have joined to promote their neighborhood, the Connecticut River Valley, as a unique cluster of companies that can serve the needs of the primary aircraft engine manufacturers from around the world...Connecticut's answer to Silicon Valley.

Even competitors are sharing the cost of specialized training programs and are often joining to bid on projects that would be too much for any single company to handle individually. This has given the neighborhood a distinctly competitive edge in the global marketplace.

**Preparing the Next Generation of Skilled Manufacturing Workers** The greying of the workforce in this cluster, however, could result in the region losing its edge. I believe this is a problem not just in aerospace manufacturing, but also in any industry where highly skilled factory workers are needed. It is an issue that should be addressed nationally through a federal education policy revision — rather than attacked individually by any particular industry or geographic region.

How do we address this? School guidance counseling, which is college-oriented, should be a clarion call trumpeting these careers. And, we can promote and emulate initiatives such as those of the Society of Manufacturing Engineers (SME) with its scholarships, awards, and innovative school collaborations that inspire and train the next generation in manufacturing. State-of-the-art tools in school curriculums, career education, interactive websites, robotics challenges...all of these enhance interest in manufacturing. And corporations, too, have a role to play, either with monetary contributions, donation of equipment and materials, volunteering, internships, shadowing, or other sponsorships. Hopefully, we will have a fresh crop of skilled workers ready to celebrate next October's National Manufacturing Day.