

The 'Knowledge Gap' Is Fact, Not Fiction

by Austin Weber

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Several times during the past decade, I have predicted that a “knowledge gap” could threaten American manufacturing in the future. As engineers continue to accept early retirement packages, there is less and less experience roaming around on plant floors today.

While researching and writing ASSEMBLY’s 2010 *State of the Profession* study for the July issue, I came across some disturbing news from the Sloan Center on Aging & Work at Boston College. It recently released a report that claims that the recent wave of retirement in the manufacturing sector could plague American companies with skill shortages and high costs of replacing veteran employees.

The manufacturing sector “has got a generation of workers that know how to produce or create certain types of products, and as they move out en masse, that can leave skill and knowledge deficits that employers . . . should pay attention to,” warns Steve Sweet, an associate professor of sociology at Ithaca College and co-author of *Talent Pressures and the Aging Workforce: Responsive Action Steps for the Manufacturing Sector*. “In many ways, the aging of the workforce will be like a tide, drawing the talents of older workers out of the labor force.”

The top three concerns of respondents were recruiting competent job applicants (45 percent), the low skill levels of new employees (30 percent) and knowledge transfer from experienced to less experienced employees (29 percent).

The knowledge gap has already had a major affect on the U.S. auto industry, but other manufacturing sectors will soon be feeling the heat. For instance, a recent study conducted by the Performance Review Institute (PRI), a nonprofit organization that focuses on improving production processes and product quality in the aerospace industry, revealed that 40 percent of respondents are planning to retire within the next 5 years.

“The impending potential loss of nearly half the workforce is a concern,” says Arshad Hafeez, PRI’s director of global business operations and corporate strategies. “Aerospace is a highly skilled industry, and the necessary experience and qualifications cannot be replaced overnight.”

During the last decade, the United States has lost millions of

manufacturing jobs to downsizing, outsourcing and offshoring. Meanwhile, the pool of retirees in the sector has swelled. For instance, 17 percent of this year's *State of the Profession* survey respondents are more than 60 years old. And, 39 percent are in their 50s.

"These findings are an especially dire sign for a sector trying to resuscitate itself following recent economic hardship because, as workers leave, their talents leave with them," notes Sweet. "And, the cost of replacing skilled older workers can be significant. The median cost of replacing employees in the manufacturing sector is \$5,000 per employee, compared to \$3,000 per employee in other sectors.

"One strategic means of addressing future talent shortfalls is to identify and introduce flexible work arrangements, such as flexible work schedules, career breaks or job sharing," says Sweet. "[This] will enable employers to hold on to the workers they have while attracting workers they need."

Manufacturers should proactively take steps to safeguard the future of our industry.

"Special process skills are being lost around the world due to an aging workforce," says Kevin Ward, enterprise quality director for special processes at Goodrich Corp. "The focus now must be to capture today's knowledge and pass it on to the next generation. Or, we will find ourselves looking at a product in the future and not knowing what to do with it."

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