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SME Speaks

SME: A Look Ahead

For many of us in the manufacturing community, 2008 was a year filled with economic struggles, a historic election, and a growing sense that change is necessary. Every morning, the news headlines tell us that manufacturers are fighting a battle to keep their products in the marketplace, while others are waging a war to keep their doors open and their employees working. There are those, however, who have decided that their old methods and current product lines will have to change to keep up with the evolving world that we live in. As I begin my term as the 2009 SME President, I would like to take this opportunity to look ahead at the year to come, and discuss what we at SME and all of us in the manufacturing community can do to prosper in this tough economic climate.

For many years now, the auto industry has been a major manufacturing base in the US. Unfortunately, the Big Three have been struggling from years of bad management decisions, heavy labor and health care costs, and a failure to keep pace with consumer trends, such as the growing demand for hybrid vehicles like Toyota's top-selling Prius (San Francisco Chronicle, November 2008). The Big Three's struggles have trickled down to their suppliers, which, having been so closely aligned with one particular industry for many years, have experienced "a direct and volatile effect on their businesses" (Business Review, September 2005).

Many auto suppliers have not upgraded their manufacturing processes to be leaner and more cost-efficient. In 2006, diversification was rare among auto suppliers (New York Times, 2006). Today, this diversification is increasing out of necessity and for survival. Other industries and opportunities are picking up the

slack. For instance, there are more than 20,000 medical device companies comprising an estimated \$220 billion market. Contract medical-device manufacturing alone was an \$18 billion market in 2007. It is anticipated to grow to \$32 billion by 2011 (Michigan Economic Development Corp., May 2008). This transition and diversification is necessary in today's economy. It's also one of the reasons that SME's Plan 2010, and the newly approved Plan 2012, have targeted particular industry focus areas, such as aerospace and defense, oil and gas, transportation (motorsports), and medical device manufacturing. In the coming years, we anticipate these areas will see a great deal of growth. In particular, according to the U.S. Department of Labor - Bureau of Labor Statistics (December 2007), in the next decade aerospace engineers are expected to have a 10% growth in employment. An increase in the number and scope of military aerospace projects will generate new jobs. In addition, new technologies expected to be used on commercial aircraft (produced during the next decade) should spur demand for aerospace engineers. Also, with the growth of medical device manufacturing, the need for more biomedical engineers is expected to grow as well. The US Department of Labor predicts a 21% employment growth for these engineers over the next decade, which is considered to be much faster than the average for all occupations. The BLS contributes this to "the aging of the population and the focus on health issues," which "will drive demand for better medical devices and equipment designed by biomedical engineers."

When looking at these particular manufacturing areas and engineering careers, it is important to remind ourselves that manufacturing is not dying—it is only transitioning into different fields and different areas. The US is still a competitive and highly productive manufacturing presence, and there are many manufacturing jobs available—just not in the same fields as before. SME's online Jobs Connection currently has more than 1000 jobs available in a variety of occupations from manufacturing engineers to supply chain managers. SME members have free access to Jobs Connection, and their resumes are considered first by potential employers. This is a valuable resource for SME

members who may have recently lost their jobs, need to relocate, or want to switch careers.

While SME's online resources are great tools, the Society's most valuable asset is the connectivity to its members and their substantial manufacturing knowledge. However, it is up to you, the reader of this article, to participate in the Society and share your wealth of technical knowledge with other members. Networking opens up new avenues for everyone. I can't emphasize enough the value of being an active, involved member, or how important it is to the Society and to you as an individual. By participating in your local chapter, Technical Community Network, or industry focus area, you may be able to help a struggling manufacturing practitioner or access knowledge vital to your own growth and development. This coming year is predicted to be a year of difficult business and economic challenges. Obviously, these pressures will affect our manufacturing environment. In times like these, your Society becomes more important than ever. Through your participation, you are equipped with vast resources to be a more effective contributor, thereby increasing your own net worth and, in turn, your value to your company or field of endeavor.