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Manufacturing Matters: Conference Explores Challenges Faced by Buffalo's Manufacturing Sector

"Change is the only way to improve the situation for Western New York… Actions produce consequences. When there is no change, there is no improvement. When there is no improvement, you lose the competitive edge."

Michael D. Straney, American Axle & Manufacturing

Companies that have already survived dramatic changes in Western New York's manufacturing sector must continue adapting to new national and global markets. They must also follow up on the advances they have recently made through investment in technology, product development, workforce training, and innovations in planning, strategy, and leadership. That was the advice of speakers featured in a June 6 conference sponsored by the Federal Reserve Bank of New York, Buffalo Branch, in conjunction with the Western New York Technology Development Center and the Buffalo Niagara Partnership's Manufacturers Council.

The conference, "Manufacturing Matters," drew more than 150 attendees from across New York State as well as from Washington, D.C., Pennsylvania, and Ohio. The attendees represented privately held and public companies, agencies involved in education, economic development, and regional planning, business advocacy groups, and state and local government.

Federal Reserve branch manager Barbara Walter delivered the conference's opening remarks. She was followed by regional economist Richard Deitz, who stressed the continuing importance of manufacturing to the Western New York economy. "Despite the fact that some companies have folded, there are a lot of manufacturing companies in the Buffalo area that are doing well—that are vital."

Manufacturing on the Move

The opening session focused on changes in manufacturing activity nationally as they affect the Buffalo-Niagara region in particular. Robert W. Crandall, a senior fellow in the Economic Studies program of the Brookings Institution, said that while manufacturing is still important to the national economy, unfortunately for Western New York it is no longer the largest sector of the U.S. economy. "It has, in fact, declined in relative importance in terms of nominal shares of GDP or employment to roughly one-sixth," he said, "somewhat above what the health care sector accounts for."

Crandall's research has included not only the steel and automotive industries but also national manufacturing trends, the subject of his 1993 book *Manufacturing on the Move*.[1] For the conference, he focused on the migration of American manufacturing and the effects felt in Western New York. Crandall noted that after a long period of manufacturing growth in the United States, employment began to erode in 1980 and has since fallen steadily. The decline in manufacturing has hit the Northeast harder than any other area of the country, and a turnaround in the region's manufacturing base is unlikely.

Losses in the region's manufacturing strength, in Crandall's view, resulted from a variety of factors: a relative decline in domestic manufacturing, shifts in both population and industry to the South and West, the loss of Buffalo's transportation advantages, and the legacy of collective bargaining in metals-related industries. Despite those developments, however, Buffalo area manufacturing has performed no worse than manufacturing in the Northeast generally. "If you look at the Buffalo metropolitan area versus the Middle Atlantic States, the decline between 1972 and 1997 has been about the same," Crandall noted.

Data provided by the 1997 Census of Manufacturers confirm Crandall's conclusion that metals-related industries remain a force in the nation's manufacturing sector and in the U.S. economy as a whole. When measured in production workers, such industries accounted for 42 percent of all U.S. manufacturing activity in 1972. Twenty-five years later, the share of production workers had actually risen to 45 percent. In the Buffalo area, 60 percent of all production workers in 1972 were in metals-related industries. In 1997, the number of workers still held steady at 54 percent, Crandall noted.

Crandall explained that despite the loss of most of its once-substantial steel industry and all of its automobile assembly industry, Buffalo continues to excel in a related market. "You still have a substantial motor vehicle parts operation, and it accounts for about 25 percent of all your manufacturing jobs." He attributed this surprising fact to two forces: the long history of automobile company operations in the area, and the Canada-United States Automotive Products Agreement of 1965. That pact, which the North American Free Trade Agreement (NAFTA) grandfathered and therefore did not affect, requires U.S. automobile producers selling vehicles in Canada to assemble a significant percentage of them in Canada. Because auto parts manufacturers in Buffalo are near the border, they have an advantage in supplying Canadian assembly plants.

Adapting to the New Economy

Michael D. Straney of American Axle & Manufacturing urged business leaders to be mindful of the past but focused on the future in the session "Competitiveness from a Global Perspective: Adapting to the Modern Manufacturing Environment." Straney, director of capital and capacity planning for the worldwide automotive supplier, attributed its impressive growth over the past eight years to a commitment to workforce training, new technology, and the development of advanced products, processes, and systems. "I firmly believe that our ability to deliver fresh, innovative products is vital to securing profitable business," Straney said. "The investments made in technology, not just products, all pay off. Last year, 69 percent of our sales were higher-technology-based products introduced to the marketplace in the last three and a half years. And we'll hit 80 percent this year. We will continue to increase future R&D investments. You have to."

Since its start-up in 1994, American Axle & Manufacturing has grown to twenty-three global facilities, including several in

Local Success Stories

The conference program included presentations by four local companies that have successfully implemented advanced manufacturing practices or processes.

***Hydro-Air Components,** Hamburg – "Lean manufacturing requires continuous improvements in the production process to eliminate waste—but the results are clear," said Barry Patis, plant manager for the maker of heat transfer equipment. The company went from $6 million in annual sales in 1980, with a workforce of ninety-four, to $11.5 million last year with eighty-five employees. On-time delivery has improved while inventory levels have remained the same. Patis identified several key considerations in evaluating a firm's operation for lean manufacturing principles: customer satisfaction; safety, cleanliness, and order; visual management; precise scheduling systems; effective space utilization; efficient movement of materials through the shop; management of complexity and variability; closely targeted inventory levels; supply chain integration; and commitment to quality.

***Moog,** East Aurora - From the beginning, the international manufacturer of precision controls for aerospace and industrial applications has cultivated a supportive work environment based on a philosophy of mutual respect and confidence. Moog's progressive labor practices have created a culture in which no time clocks are punched and corporate policies merely serve as employee guides. The company invests heavily in its human capital, and in return requires significant employee accountability. Today, Moog has evolved into a team-based organization that relies on a flexible workforce strategy. Jack Keebler, corporate human resources director, says the end result for Moog is an extraordinarily low turnover rate and the ability to adapt to market and industry change. "Once they arrive, people don't leave," Keebler said. The voluntary turnover rate at Moog is 1 percent, compared with the national average of 14 percent, he added.

***AirSep Corporation,** Amherst - The recent recipient of an Excellence in Export award from the U.S. Commerce Department, AirSep distributes products to more than one hundred countries. "International trade presents new growth opportunities and has improved AirSep's competitive advantage in the marketplace," said Tom Long, senior region manager, Asia/Pacific Rim, International Medical Division. He described the fifteen-year-old company as the world's largest manufacturer of pressure swing adsorption products for medical and commercial applications. "Remember: If your product is successful here, chances are good it will be successful outside of the United States," Long said. He provided a checklist for implementing a plan to extend a company's reach into different markets: generating leads, profiling dealers, building relationships, educating dealer personnel, training sales teams, and launching sales.

***Polymer Conversions**, Orchard Park - Technical innovation has been the key to maintaining quality and competitiveness for the custom plastic injection molder serving the medical industry. "Large-scale customers like Tyco, Xerox, and Delphi demand quality and innovation," said Scott Fleming, vice president of sales and marketing. Consequently, the company's focus has been to use technology to control as many variables as possible in the injection-molding process. Computer-integrated manufacturing (CIM) systems and robotics have given Polymer Conversions a competitive edge through the quality of its products and the sophistication of its production methods. "We are one of the few plastics manufacturers in the world that has been able to take advantage of integrating our manufacturing system with a proprietary software system that monitors what the machines do, how they are doing it, and its impact on the molded plastic," Fleming said.

the Buffalo area. State-of-the-art manufacturing processes and systems have enhanced productivity by 40 percent in recent years, Straney said. "We advanced from serving two customers on one continent to more than seventy-five customers on five continents. It has all been done by modernizing each of the facilities." Straney noted that successful companies that are growing, adding jobs, and turning a profit seem to share certain characteristics. They develop deep-rooted relationships with customers; direct suppliers, in particular, know their customers' product lines and can anticipate industry trends and growth rates. Moreover, successful firms design their products to meet global requirements. Engineering and manufacturing departments work in harmony, especially during product development. In addition, successful firms plan ahead—"at least five years and, if you really have guts, you will try ten years," said Straney. Such a farsighted approach "recognizes the constant change that has to happen to meet future requirements." These firms also understand the currency risks of the global marketplace. "There will be big surprises if you don't understand what's coming at you," Straney warned. Finally, technology investments are a must.

Straney said that for local manufacturing leaders, it is time to "turn the tide." Change is the only way to improve the situation for Western New York. "Benchmark your company against what I have said today. See if there are any gaps," he said. "Actions produce consequences. When there is no change, there is no improvement. When there is no improvement, you lose the competitive edge."

Tactics, Strategy, and Leadership

Robert J. Martin, president of the Western New York Technology Development Center (TDC), discussed the challenges faced by Buffalo manufacturers—and strategies to improve competitiveness—in his presentation "Tactics are Important, Strategy is Critical, but Leadership is Key." He offered a regional perspective acquired by way of research and consultative work in the manufacturing sector. The not-for-profit TDC also assists high-tech start-ups. "I would suggest to you that Western New York is somewhat polarized between two groups of manufacturing companies," Martin said. "The multinationals typically are publicly owned and unionized. They have high wage rates, are technology-intensive, and they have high productivity. But the local manufacturers facing the greatest challenges are the small to medium-sized enterprises (SMEs). SMEs typically are privately owned and nonunion with lower wage rates, lower technology, and lower productivity."

Martin described SMEs as commodity producers driven by price, quality, and service. Though successful, many of these firms feel price pressures that keep their margins low. They compete with a number of companies that can do the same things, so it is easy to lose business to their rivals. In addition, there may be particular drawbacks to being a commodity producer in Western New York. According to Martin, "regional managers often complain about energy costs, taxes, and regulation as being a competitive disadvantage to this area." Commodity production can be a community problem, he added; it tends to put downward pressure on wage rates and to leave companies with less money for employee benefits, training investments, and community contributions.

Nevertheless, Western New York's small to medium-sized manufacturers tend to excel in tactics, which Martin defined as shorter-term solutions that improve a company's operations. Tactics include promoting lean manufacturing by eliminating waste in time, space, people, and materials; managing the supply chain effectively; using appropriate technology; and enabling employees. But the most successful companies, Martin noted, move beyond tactics and use strategy to establish a competitive advantage.

While tactics are linked to day-to-day operations, strategy determines a company's long-term direction. To escape the difficulties associated with commodity production, Martin said, companies must have a strategy that will differentiate themselves from competitors. Companies can differentiate themselves in a number of ways, such as developing new products, providing exceptional service or quality, or through first-rate sales and marketing. In order to implement strategic plans, Martin advised companies to recognize employees at all levels as a resource rather than as a business cost, to use information technology strategically, and to start thinking about trading internationally.

Ultimately, according to Martin, a company's success rests with its leadership. It is management that guides day-to-day tactics and chooses and implements strategy, he said, and it is management that hires the employees and gives them the tools to do their job. Consequently, Martin said, companies must invest in developing its management team as well as its production workers, and continuously improve personal competencies throughout the organization.

Policies for Improvement

The conference ended with comments from several community leaders, who joined session presenters in a panel discussion focusing on what the Buffalo area can do to support its manufacturing sector. Lou Jean Fleron, director of Cornell University's School of Industrial and Labor Relations, cited a fall 2000 study conducted by Cornell that found Western New York to be a world-class region in terms of workplace practices, labor relations, and workforce quality. The study showed, for example, that about two-thirds of local companies organize their workers in teams, compared with only 38 percent of firms nationwide. Fleron also noted that only 22 percent of survey respondents reported that labor-management relations at their firms were adversarial, indicating that the region's employers and unions had learned to cooperate.[2] Fleron believes the study dispels misperceptions surrounding Buffalo's union legacy. "I think we have a challenge of working together to cast off the myth of our disadvantages," Fleron said, "to really let people know about the advantages of this region."

Mark Celmer, president of Multisorb Technologies International, also cited the advantages of operating a manufacturing facility in Western New York. The privately held company, based in West Seneca, is a worldwide supplier of packaged and fabricated sorbents used in various industries. "I will tell you again that what we use to recruit talent and to keep business here is clearly the quality of life," Celmer said. But Celmer cautioned that the Buffalo area may be lagging competitors in some aspects of business development, such as the ease with which a manufacturer can open a new plant. He noted how easy it was for his company to establish operations in the city of Warrington in the United Kingdom. “We moved from France to England and it took only one face-to-face visit in Warrington to set up the entire program, including pension schemes for the employees, all the legal work. It was one-stop shopping. Unfortunately, I don’t think we are there yet in Western New York.”

Another panelist, Alan DeLisle of the Buffalo Economic Renaissance Corporation, said that economic development agencies strive to stay in touch with the changing needs of businesses and recognize their desire for one-stop shopping when seeking assistance. He noted, however, an inherent gap between what businesses require and what government programs make available. While he believes such programs are becoming more flexible, DeLisle noted that the bureaucratic nature of government makes things difficult and sees the need to further streamline delivery systems. DeLisle also highlighted one problem with economic development programs generally: they are usually designed to bring in new companies or to create new jobs. Such policies can often work against an existing firm, which may need to reduce its workforce to remain viable. Ineligible for assistance itself, the existing firm may then find it must compete against a newcomer that is receiving incentives such as lower electric rates.

American Axle & Manufacturing’s Straney indicated that government must pay more attention to manufacturers’ basic needs, such as road maintenance and improvement. “The roads in fact are owned by the government,” Straney said, “and to me there is a natural progression that says they are just taken care of because the businesses are there.” Straney believes that businesses should not have to lobby for infrastructure improvements, but rather, local governments should plan the upkeep of infrastructure as a matter of course. As the conference closed, Straney offered these final words to attendees regarding his company's Buffalo operations: “My view is that Western New York is well worth our time and effort to figure out how to make it all work.”

Notes:

[1] Robert Crandall, *Manufacturing on the Move* (Washington, D.C.: Brookings Institution, 1993).

[2] L. J. Fleron, H. Stanger, and E. Patton, *Champions at Work: Employment, Workplace Practices, and Labor-Management Relations in Western New York* (Cornell University School of Industrial and Labor Relations, Western Region, 2000).

Jane Schmitt, Richard Deitz and Ramon Garcia

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