

Position Paper

Global Workforce Management: Trends and Strategies for U.S. Manufacturers

U.S. Version

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Executive Summary

Global trade and foreign investments are expanding rapidly — not only in the largest nations such as the United States and China but across a wide range of developed, developing, and Third World countries. At the same time, global trade and investment now encompass not only exchanges of currency but more sophisticated collaboration as well. As manufacturers expand and invest abroad, foreign governments are increasingly demanding assistance with economic development.

With the increasing collaboration between manufacturers and foreign governments, many U.S. manufacturers will eventually find themselves managing a global workforce. Manufacturers stand to gain considerable competitive advantage and efficiency improvements by developing the local workforce. However, they also face substantial risks if they do not manage local workforces in compliance with labor regulations.

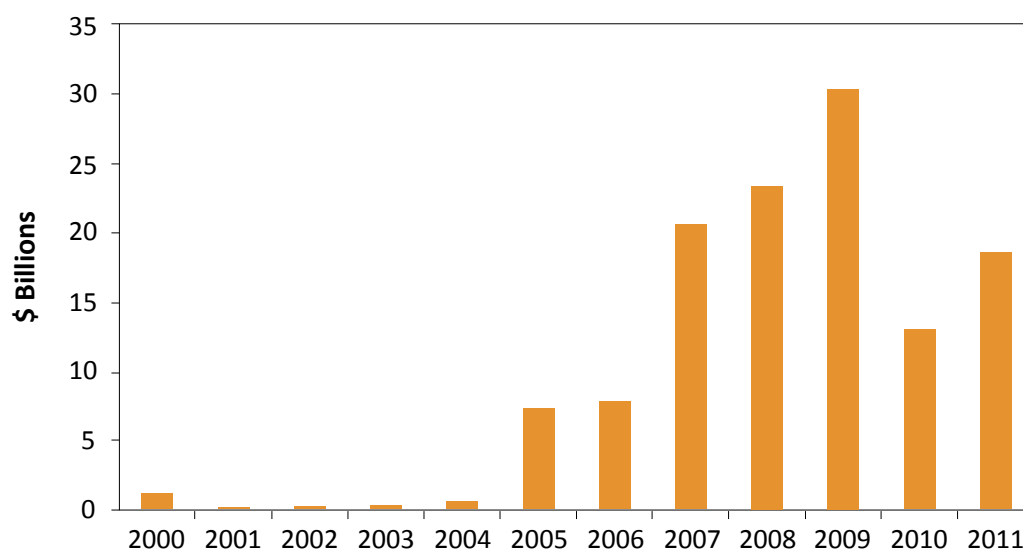
This white paper presents findings from joint research conducted by Kronos Incorporated in conjunction with IDC Manufacturing Insights, a research-based advisory service. It is designed to provide insight into global trade, investment, and workforce trends and best practices as well as to provide recommendations on workforce strategies that U.S. manufacturers can employ to improve their global competitiveness.

The Growing Importance of Global Trade

In 2011, global imports and exports grew at twice the rate of global gross domestic product, according to the World Trade Organization's World Trade Report 2012¹. Global trade is growing for two reasons. First, as emerging economies such as China increase their manufacturing sector, their appetite for natural resources is growing. To maintain its economic growth, China must scour the world for inputs (e.g, metal and energy) to its manufacturing processes. Second, in developed countries such as the United States and Germany, the global economic slowdown has forced manufacturers to expand into new international markets.

Manufacturers are also increasingly investing directly in real estate, joint ventures, and acquisitions within foreign countries. The chart below, based on data from a survey by the United Nations Conference on Trade and Development (UNCTAD), shows the growth in the flow of foreign direct investment (FDI) over the past 11 years by sovereign wealth funds (SFW). While foreign direct investment dipped in 2010, it resumed its upward climb in 2011.²

TABLE 1 Foreign direct investment (\$ billions)

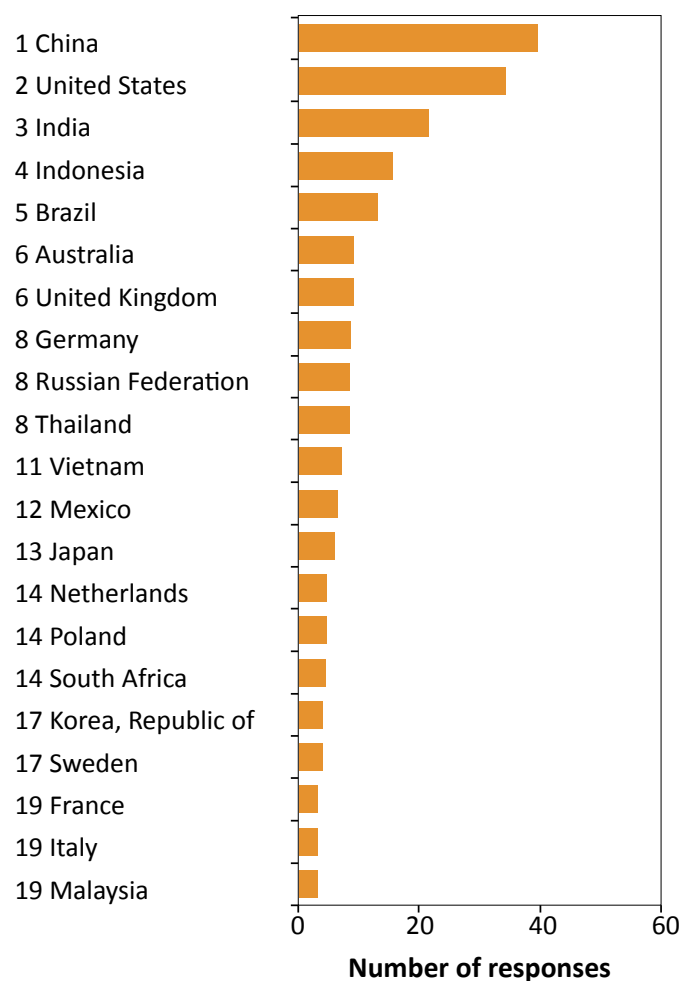


¹ World Trade Organization, World Trade Report 2012 (World Trade Organization, 2012), 20. http://www.wto.org/english/res_e/booksp_e/anrep_e/world_trade_report12_e.pdf. (Note: All charts depicted in this position paper are based on the data and charts set forth in this report.).

² United Nations Conference on Trade and Development, World Investment Report 2012: Towards a New Generation of Investment Policies (UNCTAD, 2012), 14. <http://www.unctad-docs.org/files/UNCTAD-WIR2012-Chapter-I-en.pdf>.

Foreign direct investment, moreover, is spreading across the globe. The UNCTAD survey shows that investors favor a wide variety of developed and emerging countries. The chart below, based on the World Trade Report 2012 published by UNCTAD, highlights the 21 countries selected as the top destinations for investment by multi-national corporations.³

TABLE 2 Top prospective host economies as selected by multi-national companies



The Need for Strategic Workforce Management

Manufacturers that participate in global trade and foreign direct investment are becoming increasingly intertwined with the foreign countries with which they do business. And they must increasingly take advantage of strategic workforce management to operate effectively and gain a competitive advantage.

Governments of countries receiving foreign direct investment now realize that their countries' resources and purchasing power are increasingly valuable. These countries no longer simply accept currency from a foreign company in exchange for access to oil fields or the right to sell products. They understand that these companies have something more valuable to trade than currency – namely, the experience and capacity to support local economic development.

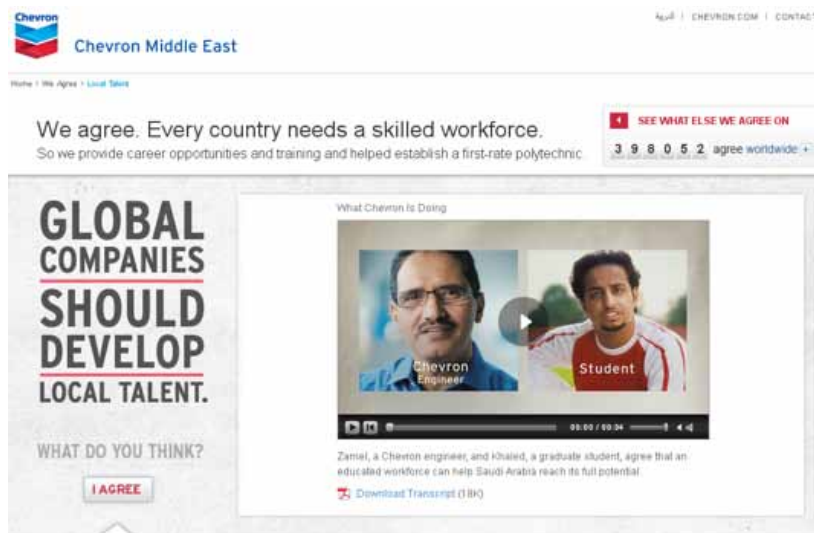
All countries are seeking ways to create new, high-paying jobs for their citizens. While governments can't always create the jobs, they can legislate trade regulations and negotiate through tax incentives. Foreign governments can induce companies to build manufacturing plants, share intellectual property, and train new employees as a condition of doing business in their countries.

³ "World Investment Report 2012: Towards a New Generation of Investment Policies" United Nations Conference on Trade and Development, 22 <http://www.unctad-docs.org/files/UNCTAD-WIR2012-Chapter-I-en.pdf>.

The smartest companies realize they can turn governments' desire for economic development into an operational and competitive advantage through strategic workforce management. Consider Bombardier. With a large public transit market in the United States, Bombardier has invested in a U.S.-based center of excellence in upstate New York. Since 1995, it has produced more than 3,000 passenger railcars that are in service across the United States. Politicians looking to create more domestic jobs, these politicians have realized that their purchasing power can be used to buy foreign goods but have the product built domestically. Most recently Bombardier was awarded a \$600 million order from the New York Transit Authority and the cars are to be built in their New York facility.

Some companies are turning foreign countries' demands for economic development into a competitive advantage that allows them to improve their ability to recruit skilled employees and execute projects more efficiently. New energy fields are often located in developing countries, and it will take numerous skilled employees to execute on large, long-term drilling projects. In response to this challenge, Chevron has developed a program to train local citizens to fill the jobs created when it invests in a country.⁴ This program gives Chevron an advantage in negotiating with the country holding the resource, because it can offer not only cash but also proven social economic investment in the host country.

EXAMPLE Chevron has established programs to train local workers⁵



The Perils of Poor Workforce Management

While a strategic workforce management plan benefits companies in global markets, companies that do not properly manage their workforce to comply with labor laws can be subject to unwanted investigations and sanctions.

For example, in 2011, Foxconn, a dominant provider of contract manufacturing services to electronics manufacturers and one of China's largest employers, with 1.2 million employees, made headlines when several of its employees committed suicide. Global media outlets trumpeted Foxconn's strategy of hiring unskilled labor from agricultural areas in China and working these employees six to seven days a week, up to 14 hours per day. After being pressured by the Chinese government, international markets, and Western consumers, Foxconn ultimately agreed to increase wages by 25 percent.⁶

⁴ "Local Talent," Chevron Corp. (Middle East), accessed September 5, 2012, <http://www.chevron.com/weagree/middleeast/english/?statement=localtalent>.

⁵ Ibid

⁶ David Barboza and Charles Duhigg, "Pressure, Chinese and Foreign, Drives Changes at Foxconn," *The New York Times*, February 19, 2012, http://www.nytimes.com/2012/02/20/technology/pressures-drive-change-at-chinas-electronics-giant-foxconn.html?_r=1.

Foxconn wasn't the only organization to feel the impact of its failure to comply with labor laws. Apple, which uses Foxconn to assemble its products, was a victim of the controversy as well. Apple has long kept its suppliers a closely guarded secret due to the time and effort required to find high-quality suppliers. The investigations into Foxconn practices and labor audits forced Apple to release its supplier list. As a result of Foxconn's noncompliance with labor regulations, Apple lost control of what, in its view, amounted to one of its trade secrets.⁷ The Foxconn incident highlights the fact that outsourcing manufacturing processes to a third party doesn't absolve a company of responsibility for working conditions within the manufacturing process.

Moreover, the impact of poor workforce management by both manufacturers and their partners extends well beyond the loss of intellectual property. Companies that fail to comply with local labor laws or to police their suppliers face the alienation of customers and legal action from employees. Today's consumers have a sophisticated understanding of supply chains and are increasingly taking notice of working conditions around the world.

At the same time, growing numbers of employees in countries like China are standing up for their rights. For example, in November 2011, thousands of workers in Dongguan, a manufacturing hub in the province of Guangdong, clashed with police to demand increases in pay. "This is probably the most intense spike in worker activism since the wave of strikes that hit Chinese manufacturers in summer 2010," said Geoffrey Crothall of China Labor Bulletin, a Hong Kong-based group that monitors labor issues in China.⁸

The increase in complaints about labor law violations in China reflects a second generation of better-educated manufacturing employees. Compared with the previous generation that was happy simply to get off the farm, this new generation expects to be paid according to the law and values time off to enjoy life. Other countries have even stricter, more labor-friendly laws. Brazil, for example, saw 2.1 million labor-related lawsuits filed in 2009, and an article in the Economist observed that "The courts rarely side with the employer."⁹

As manufacturers expand globally, they must expand and improve their workforce management capabilities to address government demands for economic development as a condition of doing business in their locale. At the same time, manufacturers must understand and carefully adhere to the unique labor laws and cultures in each country while ensuring that their supply chain partners do the same. And because many local laws provide general guidance with wide latitude for interpretation, clear labor policies, consistent application, and accurate audit trails are all critical. Workforce management software applications can simplify the process of consistently adhering to and documenting compliance with workforce management policies while improving labor productivity and reducing labor costs.

Survey: How the Global Manufacturing Workforce Is Evolving

As global trade and foreign investment have grown, global manufacturing has experienced a renaissance. The reasons for this revival are many. Wages are rising in countries that once relied on low-cost labor for competitive advantage, which means that other countries are once again competitive. Countries that had tried to evolve from manufacturing - to a service-based economy are now rethinking the importance of manufacturing as an economic driver. Fuel costs are rising, pushing manufacturers to produce goods closer to where they will be used. New consumer and industrial markets are growing in emerging economies. All of these factors are reshaping the manufacturing industry, providing new opportunities for companies that understand how to take advantage of them.

Global manufacturers are also encountering more foreign competition. Because labor management plays a critical role in global competitiveness, improving labor management can help companies take greater advantage of evolving opportunities.

⁷ Nick Wingfield and Charles Duhigg, "Apple Lists Its Suppliers for 1st Time," *The New York Times*, January 13, 2012, <http://www.nytimes.com/2012/01/14/technology/apple-releases-list-of-its-suppliers-for-the-first-time.html>

⁸ Jamie FlorCruz, "Labor Woes Send Shudder Through Beijing," *CNN US* November 24, 2011. http://articles.cnn.com/2011-11-24/asia/world_asia_china-labor-woes_1_geoffrey-crothall-labor-unrest-workers-vent?_s=PM:ASIA.

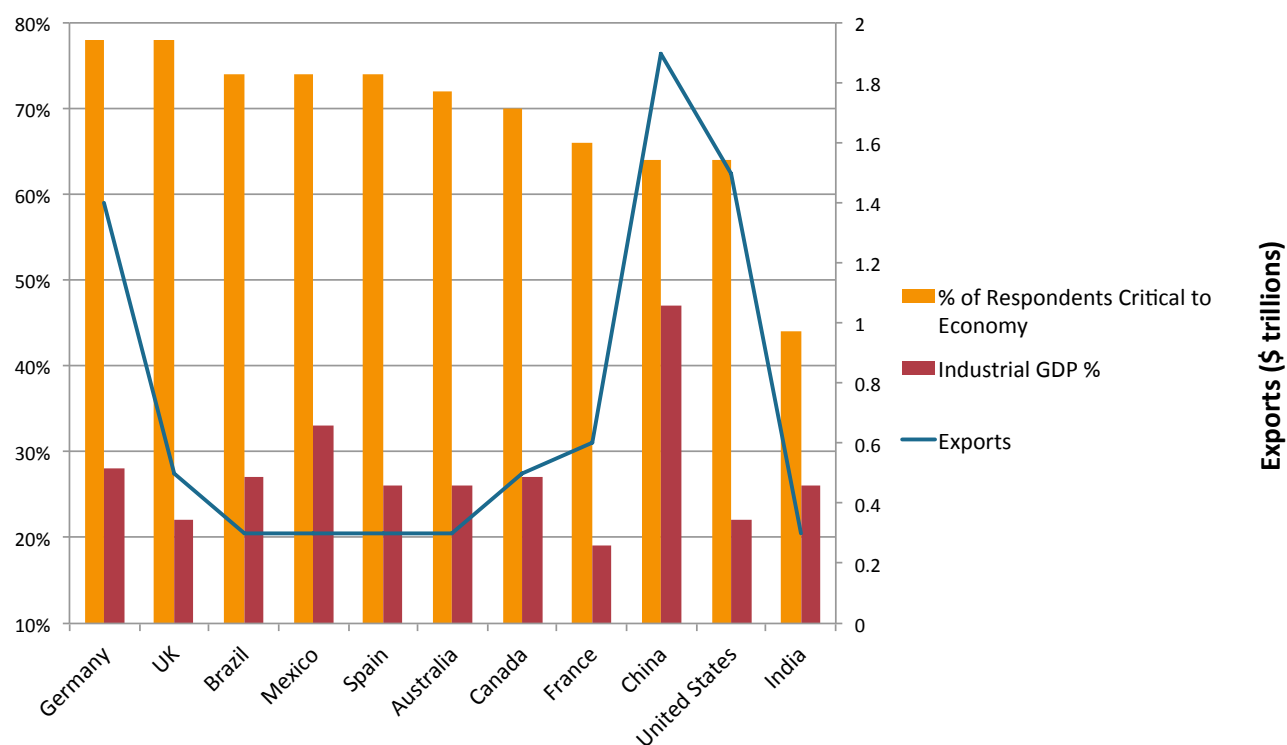
⁹ Jamie FlorCruz, "Labor Woes Send Shudder Through Beijing."

To help manufacturers better respond to the global manufacturing environment, Kronos sponsored a survey through IDC Manufacturing Insights, a research-based advisory service, to develop a global manufacturing labor survey. The “Engaging the Modern Manufacturing Workforce” survey engaged 550 executives and managers in the manufacturing industry from 11 different countries, using both written and verbal surveys to identify global manufacturing and workforce trends. This survey is designed to help U.S. manufacturers understand the way manufacturing works in the countries they plan to enter and to identify global best practices that manufacturers can apply to become more productive and competitive.

In the following pages, we present and interpret the survey results.

The Importance of Manufacturing to the Economy

TABLE 3 Question: Rate the importance of manufacturing to the economy.



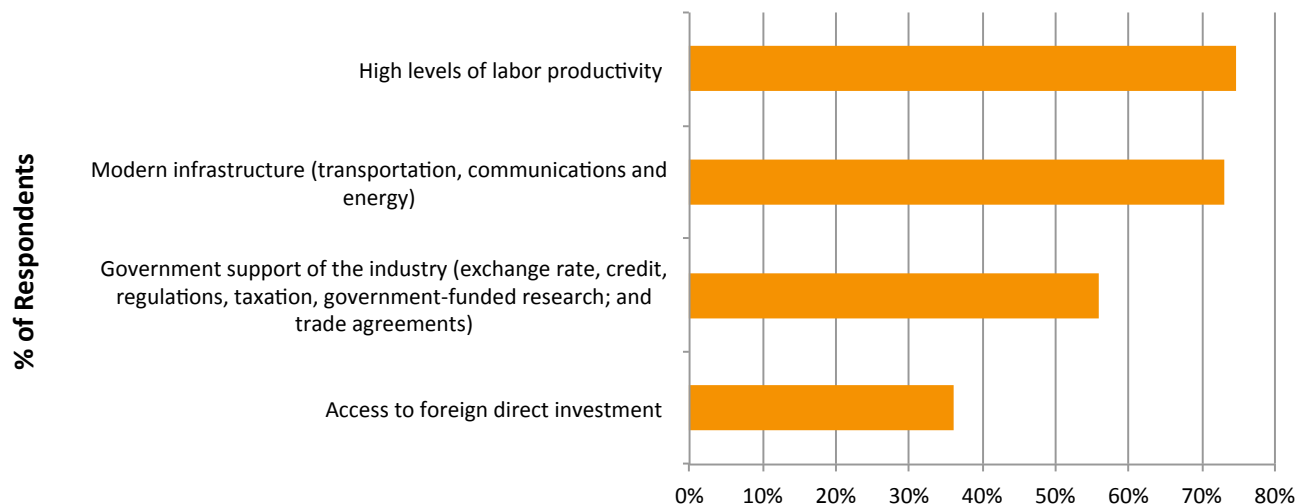
First we asked about the importance of manufacturing to the economies of 11 countries. With the exception of India, the majority of respondents rated manufacturing as critical. Interestingly, China and the United States, whose exports dwarf those of other countries, were not as bullish about manufacturing as smaller emerging and developed countries.

The United States results are due to a decline in manufacturing jobs and the fact that it has one of the smallest percentages of GDP dedicated to industrial output. China, however, is completely dependent on manufacturing for its economic success, which makes it surprising to see China ranked in the bottom quartile. But rising wages and lean margins might mean that it will be more difficult for manufacturers to be successful in China moving forward, and those on the inside know it.

Overall, comparing the high level of interest in manufacturing with the low percentage of industrial GDP currently devoted to manufacturing indicates that developed countries, several of which are key export countries for China, have significantly renewed interest in manufacturing. Given the fact that logistics costs are lower with local manufacturing and wages are decreasing in those countries, pressure will increase for Chinese manufacturers to improve their labor productivity to remain competitive.

What Contributes to Manufacturing Success

TABLE 4 Question: What's the most important factor to your success in manufacturing?



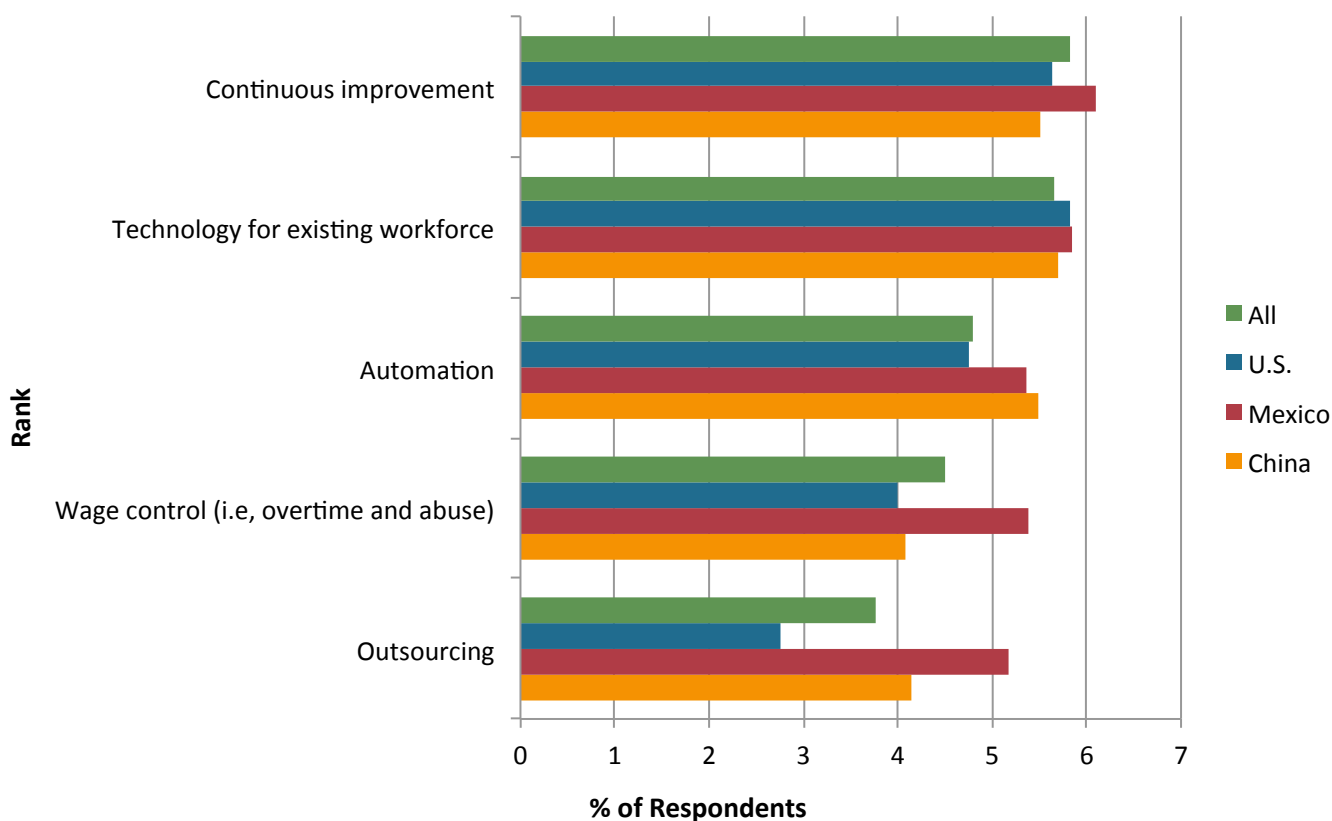
What are the most important factors that contribute to success in manufacturing? Respondents from almost all countries rated labor productivity as the most important factor, rather than government support, improved infrastructure, or foreign direct investment. This finding makes sense for individual companies because labor is the one factor that companies can control. Modern infrastructure is important in global trade because logistics costs are increasingly important to total landed cost.

It is interesting to note that China was the only country to rank productivity second to another factor, namely government support for the industry. This indicates that Chinese manufacturers are getting a helping hand that those in other countries do not have and that they believe they need government help to be successful. In contrast, other countries believe that they can be successful without government help, by improving labor productivity.

Increasing Labor Productivity

Next, we asked survey takers to rank the best method to improve labor productivity within their organization.

TABLE 5 What is the best method to increase labor productivity?



This graph compares the overall response to the individual responses from the U.S., Mexico, and China.

Viewing the responses in terms of the countries' levels of manufacturing maturity reveals that U.S. companies feel they have already automated, managed, and outsourced excess costs from their environments. Mexico stands in sharp contrast, viewing every option as a viable candidate for improving labor productivity. China falls in the middle. While China relies on low-cost labor to gain a competitive advantage, respondents from China also believe they have significant opportunities to further improve productivity through automation, cost controls, outsourcing, and continuous improvement.

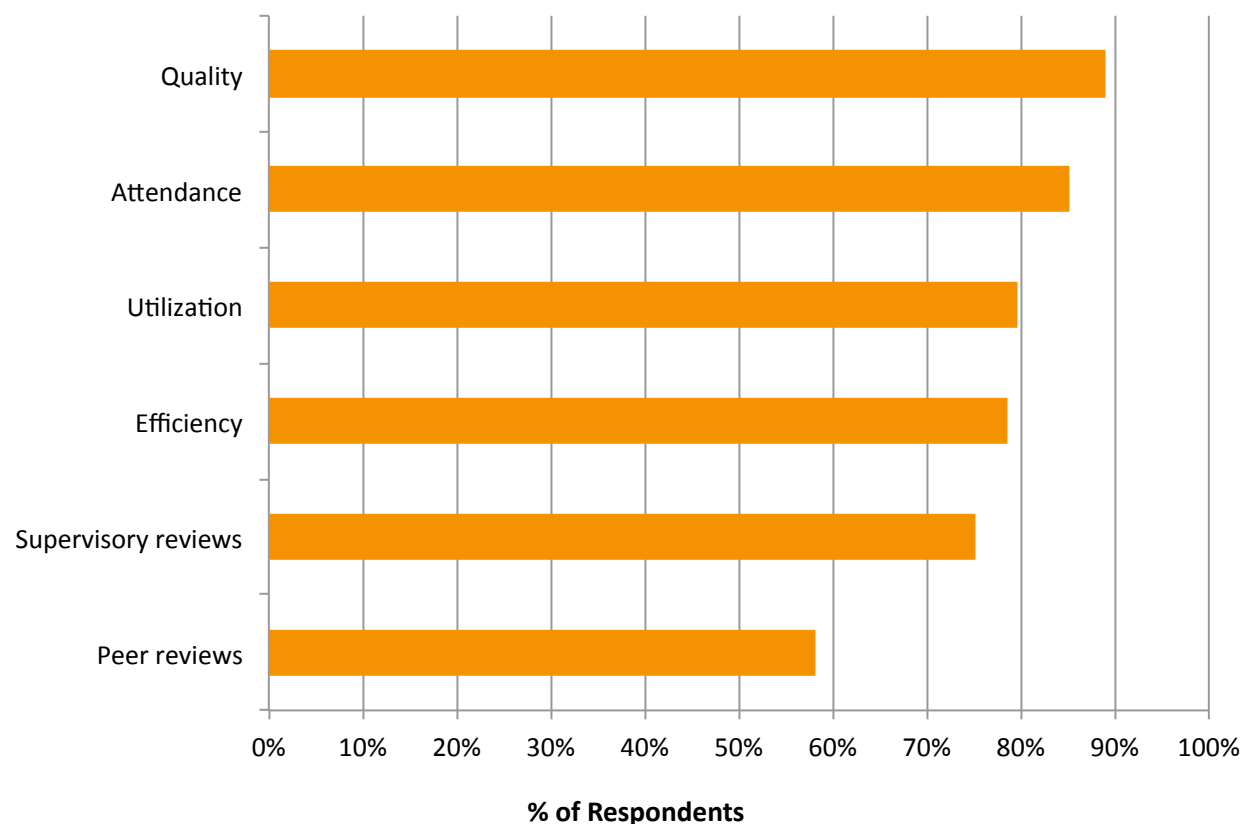
“We are doing our best to leverage assets with human capital from India or quality manufacturing from the Midwest or doing whatever we can to leverage the global supply chain. Overall, we have a very competitive workforce.”

– Building Materials Manufacturer

Measuring Labor Productivity

As the old adage goes, “You can’t improve what you don’t measure.” The respondents were asked to rank the importance of several labor metrics, including quality, attendance, utilization, efficiency, supervisory reviews, and peer reviews. The results below show the metrics respondents ranked as very or extremely important.

TABLE 6 Labor metrics that are very or extremely important



“I think the thing that our company finds value in is that if you have good data about your employees, you can react a lot quicker and make business decisions that hit your bottom line a lot faster.”

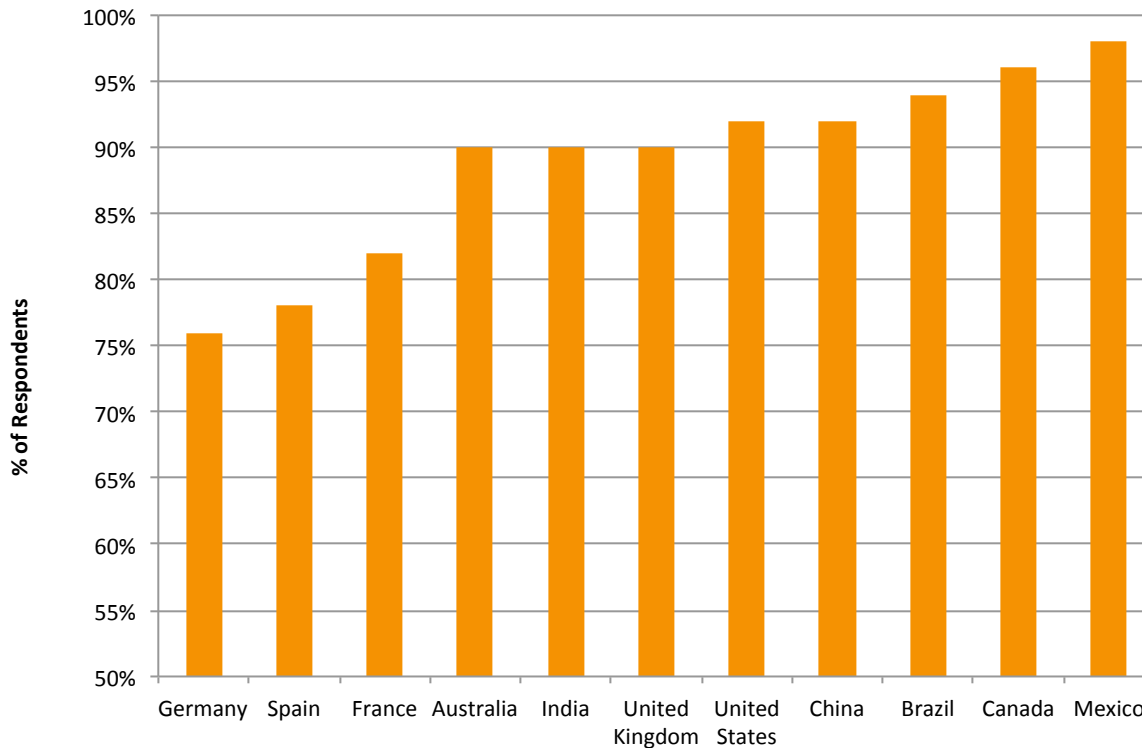
– Disk Drive Manufacturer

What was most surprising is the fact that respondents ranked the attendance metric so highly. This demonstrates that manufacturers recognize that labor is just as critical as machines and materials. An employee showing up late or not at all is just as damaging to operations as a machine breaking down or an out-of-stock raw material.

Rating Quality as a Metric

It was no surprise to see quality at the top of the list of metrics. What was unexpected was that its importance as a metric was not consistent among countries. In the chart below, Germany, a country known for its high levels of quality, did not rank the Quality metric nearly as highly as did other countries.

TABLE 7 Quality is a very or extremely important metric



What makes this result so interesting is that it may provide a clue as to how Germany is able to deliver high-quality goods while paying good wages and maintaining superior productivity. It's possible that German manufacturers are building quality into their processes.

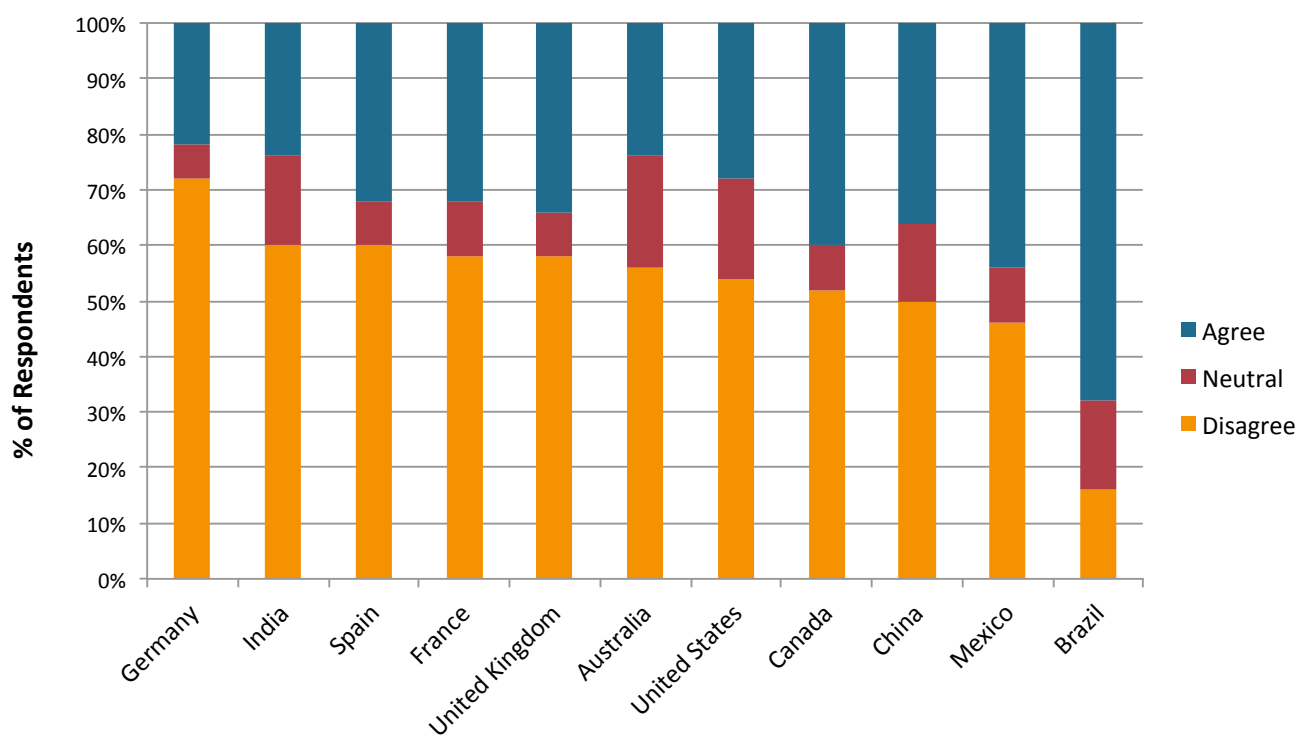
While many countries measure quality at the end of the process, this is not a best practice. Although the end of the process is the easiest time to identify poor quality, by then the materials have been used, the labor cost incurred, and the machine capacity spent. This makes the end of the process the most expensive time to identify quality issues.

If Germans are building quality into the process, they can maintain high levels while simultaneously increasing productivity. Countries such as the United States, China, Brazil, Canada, and Mexico, where more than 90 percent of manufacturers rate quality as a very or extremely important metric, may have an opportunity to increase productivity by controlling processes more carefully, which will allow them to reduce investments in measuring quality.

The Impact of the Labor Shortage

The dearth of skilled employees within manufacturing has been covered extensively in the news. While many factors contribute to this issue, the real question is whether this shortage is acute enough to impact production. We asked that question directly of manufacturers. The results are displayed in the table below. By disagreeing, respondents are saying that the labor deficit is not enough to impact production; by agreeing, they are stating that production has been reduced.

TABLE 8 Is the shortage of skilled production employees impacting production?



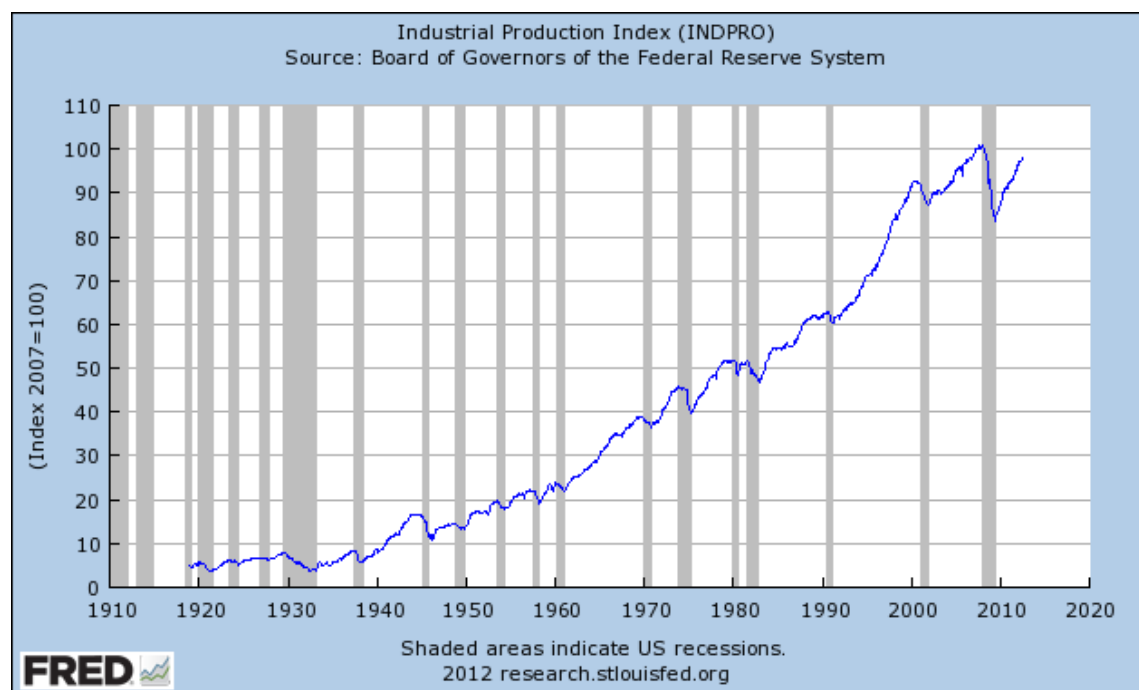
According to the survey, Germany, a country that has traditionally focused on high-value manufacturing, seems to have been affected the least by a skilled labor shortfall. This is most likely because the German economy experienced little disruption through the recent global downturn. A number of developed countries constitute the middle of the pack. These countries have shed millions of jobs and face a graying workforce that is beginning to retire. With the uncertainty of manufacturing's role in their economy, their citizens are not preparing for careers in manufacturing and the impact is beginning to show. The developing economies face the largest shortage of employees. With their existing manufacturing base built around low-skilled, low-cost labor, countries such as China, Mexico, and Brazil are drawing from a small pool of employees because they have never developed an infrastructure to train skilled employees. These countries face greater challenges in ramping up their skilled labor supply for the same reason.

The Future of U.S. Manufacturing

What do these trends mean for manufacturing in the United States?

The typical American believes that the U.S. manufacturing industry is dying a slow death. But the facts show otherwise. The volume of production has actually risen steadily over the past several decades, as shown in a chart of the Industrial Production Index produced by the Board of Governors of the Federal Reserve System.¹⁰ The Industrial Production Index tracks real output as a percentage of a base year, in this case 2007, for manufacturing, mining, and electric and gas utilities.

TABLE 9 The volume of U.S. manufacturing production has risen steadily over the past several decades



This success is overshadowed by the steep drop in employment within the manufacturing sector and the growth of China's manufacturing economy. As the employment chart below shows, the number of manufacturing employees in the United States fell precipitously over the past decade, although it has shown small gains in the past few years.¹¹ The reduction in the U.S. manufacturing workforce aside from economic circumstances outside of a manufacturer's control can be attributed to:

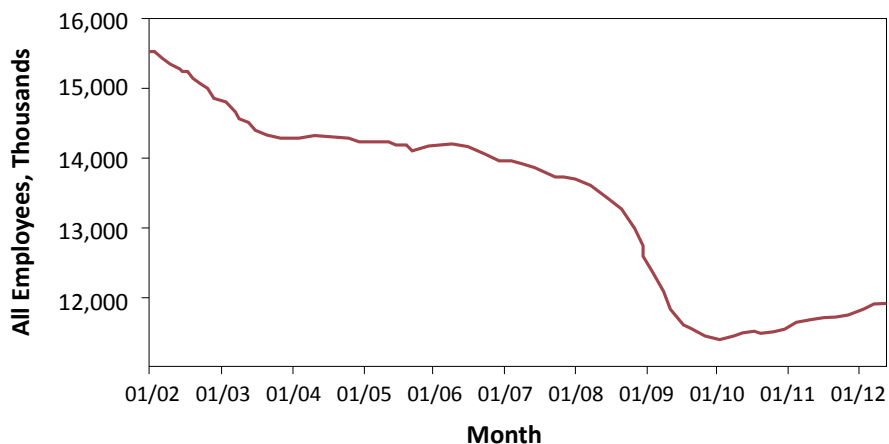
- Increases in automation that replace labor
- Offshoring of low-skill jobs to low-wage countries such as China
- Improvements in the way manufacturers use labor, which have allowed them to create more value with fewer jobs

For individual workers, the slight rise in manufacturing employment in the U.S. in the last two years is encouraging because manufacturing provides higher compensation than do other sectors in the economy. At \$33.02 per hour (including insurance and retirement benefits), manufacturing edges out healthcare with its compensation at \$30.67 per hour¹³ and is significantly more attractive than retail at \$17.56 per hour.¹⁴

¹⁰ "Industrial Production Index," Federal Reserve Bank of St. Louis, accessed September 6, 2012, <http://research.stlouisfed.org/fred2/series/INDPRO?cid=3>.

¹¹ "Employment, Hours, and Earnings from the Current Employment Statistics Survey (National)," Bureau of Labor Statistics, accessed September 6, 2012, http://data.bls.gov/timeseries/CES3000000001?data_tool=XGtable.

TABLE 10 Employment in the U.S. manufacturing sector has dropped dramatically over the past decade, although it has shown signs of a slight upturn in the past two years



Generally speaking, manufacturing wages remain attractive due to the high volume each employee produces, as reflected in the Industrial Production Index. However, higher wages won't guarantee ongoing prosperity. Indeed, high manufacturing wages mean that many developing and developed countries seeking to increase the wealth of their citizens are turning to manufacturing. With the increased competition, all nations will need to increase labor productivity and innovate new solutions to maintain and improve profitability.

Conclusion: Steps U.S. Manufacturers Can Take to Improve Global Competitiveness

U.S. manufacturers have several strategic choices to make to continue their success in today's global environment. Specifically, they can:

- Increase labor productivity
- Continue innovation and quality improvements to increase the unit value of products they create
- Extend ownership of the supply chain through the creation of global brands to increase revenues and profits

Each strategy comes with its own workforce challenges.

Existing industries that are disadvantaged by high logistics costs or lower-wage competition can employ automation to increase labor productivity and outsource production to lower-cost countries. But these alternatives carry their own problems. Outsourcing without a plan to employ displaced workers reduces domestic consumption and shrinks the tax base. Automation requires large investments of capital and reduces flexibility while displacing employees. A third solution is to adopt a continuous improvement strategy, such as lean labor, that is designed to eliminate waste within manufacturing processes. A continuous improvement strategy has the advantage of maintaining employment while increasing profits for the company.

Manufacturers can also increase the value of what they produce, by providing value-added services at a competitive rate or by increasing the complexity (and associated value) of what they produce, to minimize the number of competitors. Germany has successfully executed this strategy and prospered despite the recession. This strategy requires a higher level of employee skills and engagement, but companies achieve a competitive advantage and employees gain high job security and increased wages.

¹³ "Industries at a Glance: Education and Health Services," Bureau of Labor Statistics, accessed September 6, 2012, <http://www.bls.gov/iag/tgs/iag65.htm>.

¹⁴ "Industries at a Glance: Retail Trade," Bureau of Labor Statistics, accessed September 6, 2012, <http://www.bls.gov/iag/tgs/iag44-45.htm>.

Finally, manufacturers can build their global brand and enter markets on their own without partnering with local distributors. By controlling more of the supply chain, they retain more of the revenues and profits that were previously earned by supply chain partners. As described earlier, the challenge is that countries are demanding local employment. This means foreign manufacturers must manage a global workforce working in different cultures, time zones, and under different regulations, which increases labor complexity.

Most manufacturers will combine aspects of all of these strategies. But a good way to begin is by implementing lean labor to eliminate wasteful labor practices, thereby improving workforce productivity and reducing labor costs. As a first step to learning how your company can be successful, the book “Lean Labor” provides practical guidance on increasing the productivity and flexibility of a manufacturing workforce.

To access the first chapter for free or to obtain a complimentary copy of the book, [please click here](#).



TIME & ATTENDANCE

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