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# 2015 Greater Philadelphia Manufacturing Survey

Laying the Foundation for a Stronger Tomorrow



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# Introduction

The manufacturing industry has seen positive growth and momentum during this period of economic recovery. While there has been some good news with the “manufacturing renaissance” and the reshoring of jobs to the U.S., this has been tempered by the shortage of skilled labor and difficulties accessing capital and public resources.

Certainly, opportunities exist and challenges lurk for our region’s manufacturers, who are working diligently to meet challenges head-on and plan for the future.

In Philadelphia, Mayor Michael Nutter’s Manufacturing Task Force issued its *Manufacturing Growth Strategy for Philadelphia*, outlining several keys to strengthening and growing manufacturing in the region. Not surprisingly, these keys included such areas as talent acquisition and development, innovation, access to capital, and advocacy. The full recovery and sustainability of the manufacturing industry is so important to our region that in April 2014 Mayor Nutter created a new Office of Manufacturing and Industry within the city’s Department of Commerce to carry out the growth strategy outlined in the report.

Outside the city, the region’s manufacturing leaders – business owners and executives, service providers, educators, and governmental agencies – are working together to identify needs and access resources in support of the industry. Organizations such as the Manufacturing Alliance of Chester & Delaware Counties and the Manufacturing Alliance of Bucks & Montgomery Counties have sprung to life over the past year and are working toward that common goal.

Because a thriving manufacturing industry is so important for our region’s economic health, and to complement the efforts of the many organizations leading the way, Kreischer Miller’s Manufacturing Industry Group recently conducted its third annual **Greater Philadelphia Manufacturing Survey**. The survey was intended to gauge the economic results and outlook of regional middle market manufacturers and to provide manufacturing executives and leaders a snapshot of business best practices being utilized or planned by their peers or constituents, as well as trends observed, in areas such as human capital, business processes, resource deployment, growth, and profitability initiatives.

# Methodology

Survey questionnaires were distributed electronically to middle market manufacturers in the Greater Philadelphia region, including most of southeastern Pennsylvania, southern New Jersey, and northern Delaware.

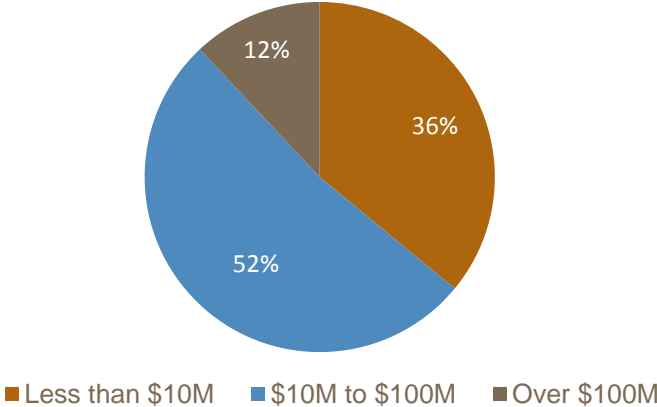
The survey was conducted online from mid-November 2014 through mid-January 2015.



Source: WelcometoPhila.com

Survey respondents included privately-held companies (94 percent) and public companies (6 percent). Respondents reported annual revenues ranging from under \$1 million to approximately \$650 million, and averaging \$49 million. Thirty-six percent of respondents reported annual revenues of less than \$10 million, 52 percent were between \$10 million and \$100 million, and 12 percent were over \$100 million.

Annual Revenues of Respondents

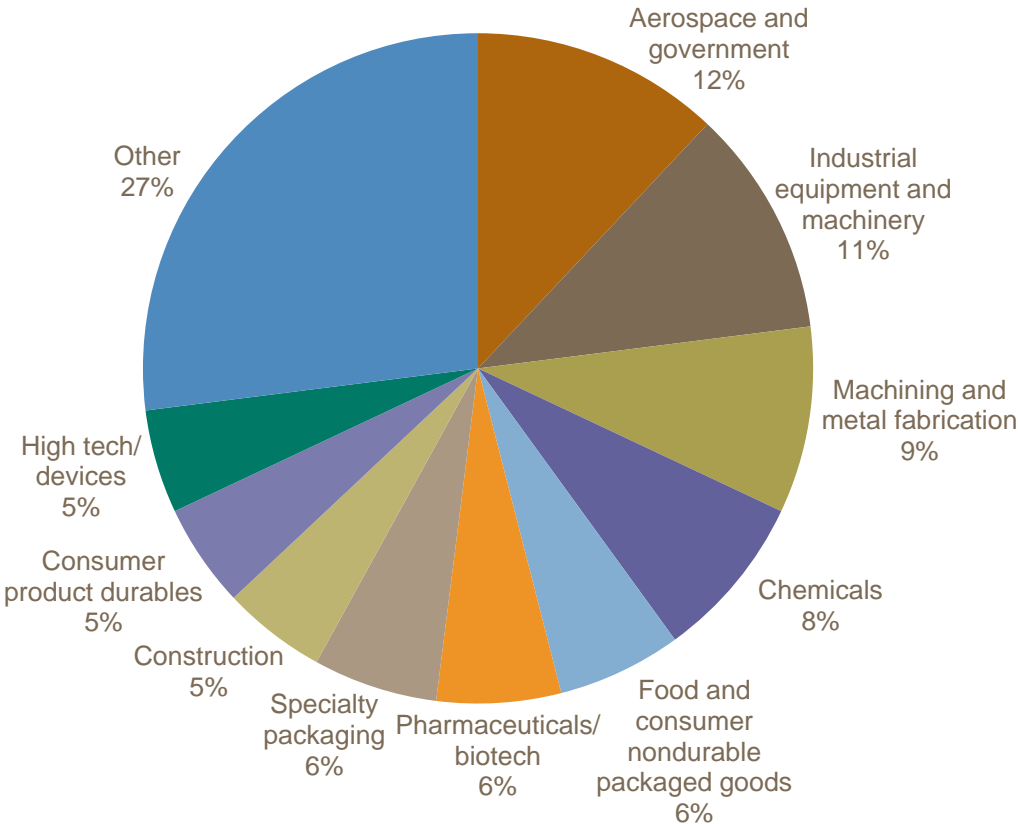


# Methodology *Continued*

Respondents represented a diverse cross section of the manufacturing sector in the Greater Philadelphia region. The largest industry subcategories were aerospace and government (12 percent), industrial equipment and machinery (11 percent), machining and metal fabrication (9 percent), and chemicals (8 percent), which totaled 40 percent of all respondents.

Another 33 percent of respondents were evenly distributed among food and consumer nondurable packaged goods (6 percent), consumer durable goods (5 percent), pharmaceuticals and biotech (6 percent), high tech/devices (5 percent), specialty packaging (6 percent), and construction (5 percent).

The remaining subcategories included automotive, energy, fiberglass and plastics, medical devices and equipment, printing and publishing, and textiles.



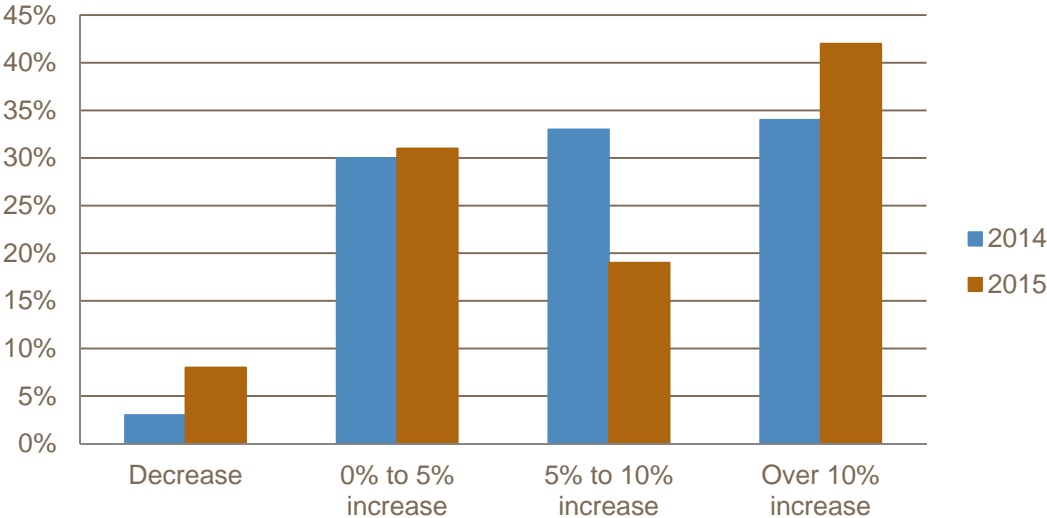
# Growth Expectations

We asked survey participants about their expectations for revenues in 2015 as compared to 2014, and the results were rather encouraging. An overwhelming majority (92 percent) expect revenues to increase in 2015, while only 8 percent predict a decline.

Of the 92 percent expecting revenues to increase, 31 percent anticipate up to a 5 percent increase, 19 percent foresee an increase from 5 percent to 10 percent, and the remaining 42 percent predict an increase greater than 10 percent.

The responses to the same question in last year's survey were more consistent across the board, and slightly more favorable, as only 3 percent of last year's respondents anticipated a decrease.

**Anticipated Change in Revenues**

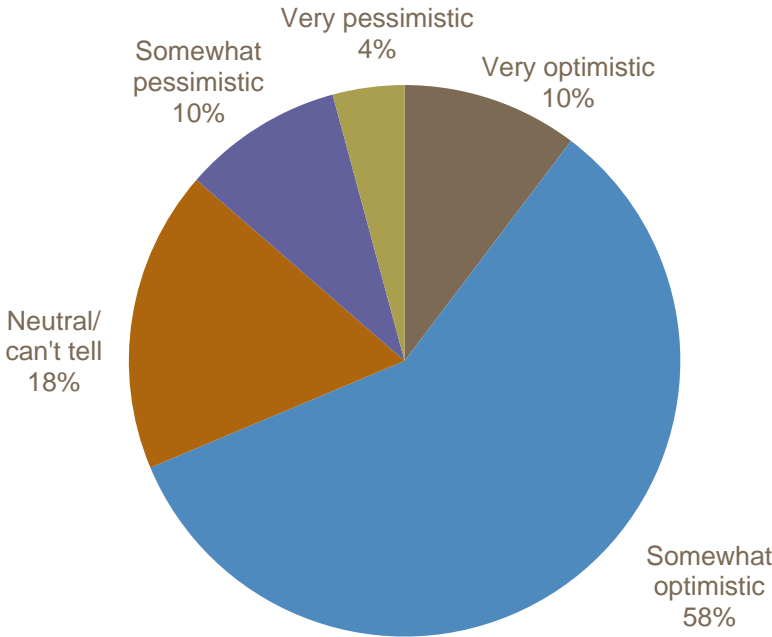


It is interesting to note that the number of respondents predicting 2015 revenue increases of greater than 10 percent is significantly higher (42 percent) than in 2014 (33 percent). However, the combined projected revenues for all respondents are expected to increase approximately 4 percent, compared to 5 percent last year. This is a result of smaller manufacturers anticipating stronger revenue growth (percentage-wise) than larger manufacturers.

# Economic Outlook

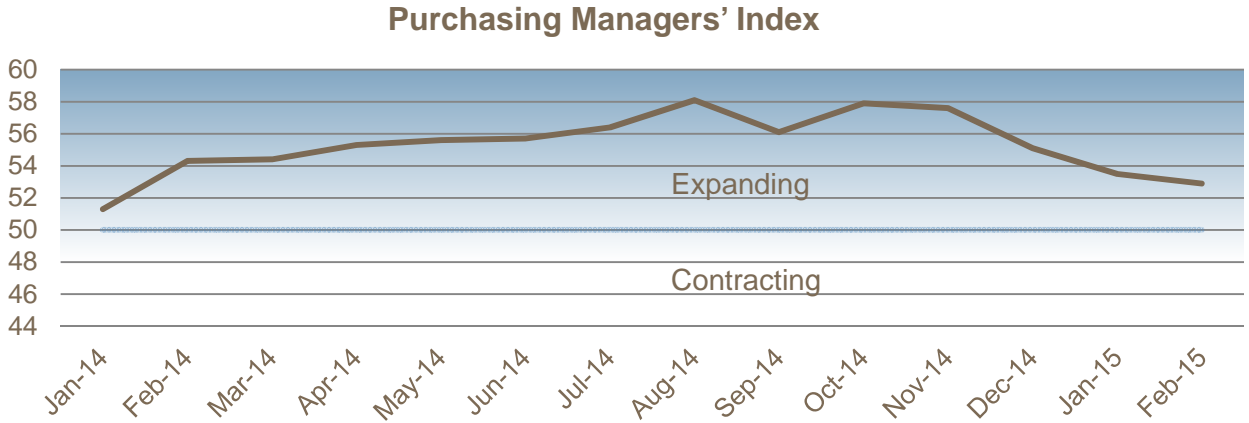
The majority of respondents indicated a positive outlook toward the economy. Over 68 percent felt some level of optimism, versus only 14 percent who felt pessimistic. Both categories represent slight improvements over last year, when 67 percent of respondents were optimistic and 17 percent were pessimistic.

2015 Outlook

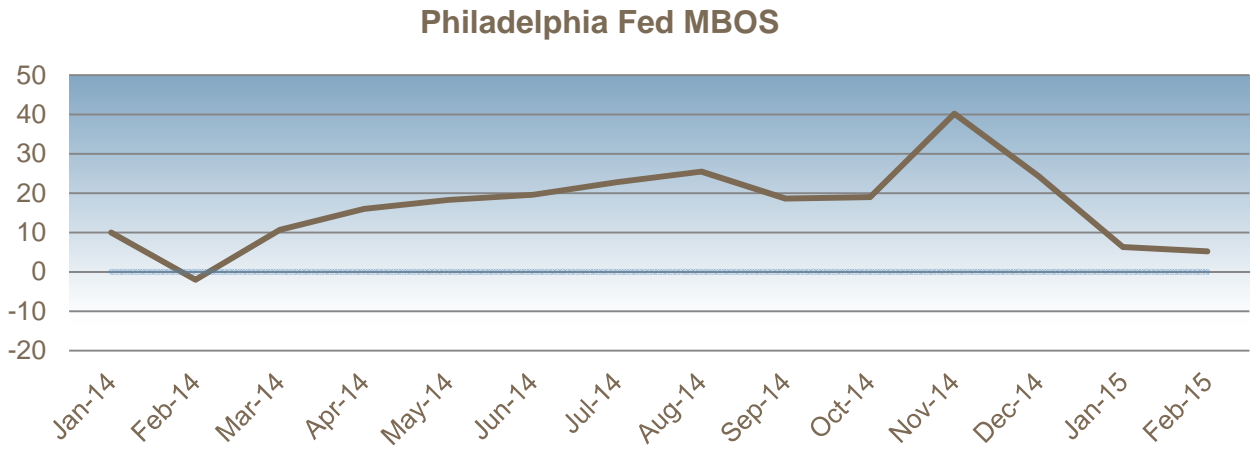


# Economic Outlook *Continued*

This growing economic optimism is very much in line with national and regional trends. The Institute for Supply Management (ISM), which releases its Purchasing Managers' Index (PMI) on the first of every month, has been reporting an expansion of national manufacturing activity for 20 consecutive months.



Locally, the Federal Reserve Board of Philadelphia has been reporting similar results. Its Manufacturing Business Outlook Survey (MBOS) and index have reported expansion of regional manufacturing activity for twelve consecutive months. The streak would be 21 months if you excluded a February 2014 contraction, which was likely attributable to severe winter weather.





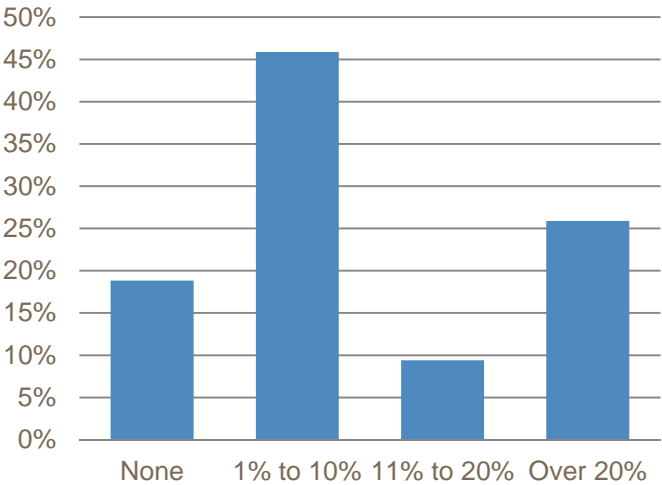
# International Activities

Many have posited that the world is getting “flat.” International trade barriers have loosened to a great extent, many logistical concerns have been allayed, and communication is nearly instantaneous and constant. So we asked the question: to what extent are middle market manufacturers in the Greater Philadelphia region playing in this wide open field?

It is interesting to note that with regard to export sales, an overwhelming majority of respondents (over 81 percent) indicated some level of international sales activities, although on average, the magnitude of such activities for those engaged is only 16 percent.

Further, the average international sales percentage for all respondents is only 13 percent. In other words, 87 percent of the sales revenues of survey respondents are generated domestically.

Percentage of Export Sales

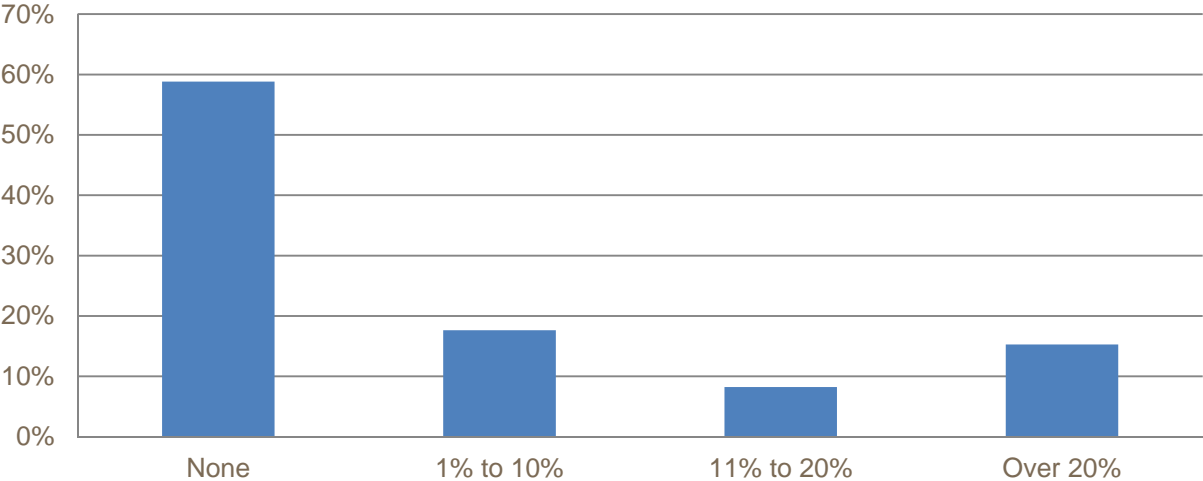


International sales represent an enormous opportunity for middle market manufacturers to increase revenues and market share. However, many companies’ efforts to expand globally are hampered by a lack of adequate resources, limited access to market data, and often, fear of the unknown. Fortunately, there are a number of public agencies and some funding sources at the national and local levels to assist manufacturers with their global pursuits. In our region, **World Trade Center of Greater Philadelphia** has been helping manufacturers gain access to resources for many years.

# International Activities *Continued*

With regard to overseas production, less than half of respondents (41 percent) indicated that they engage in international manufacturing activities, although they do so at a higher level (24 percent) than those who sell abroad.

**Percentage of Products Manufactured Internationally**



## **TAX STRATEGY**

One of the most frequently overlooked tax incentives for small and mid-sized manufacturers that export goods overseas is the **IC-DISC** (Interest-Charge Domestic International Sales Corporation). The government continues to support this tax incentive because it helps U.S. manufacturers and encourages exports. It is worth investing some time to determine whether your company is eligible, as your overall tax savings may be as high as 15.8 percent on half of the profits of your export sales. If you manufacture products in the U.S. that are exported overseas, including Canada and Mexico, or you manufacture components in the U.S. for other companies' products that are ultimately exported, you may benefit from an IC-DISC.

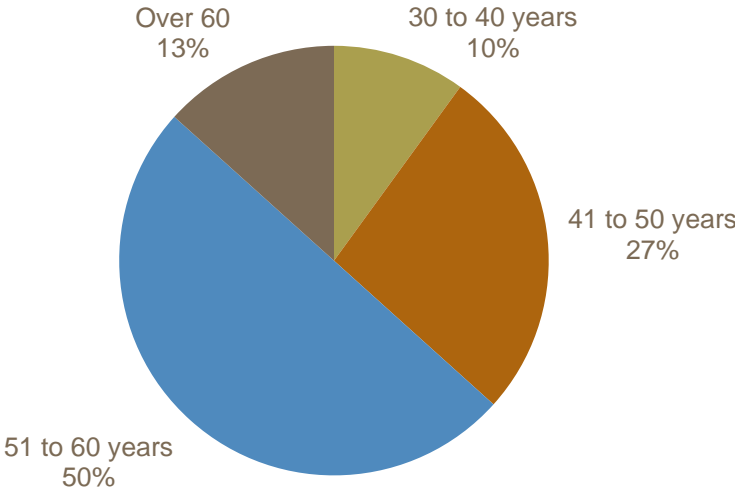
# Human Capital Plans

When asked about their human capital plans, 54 percent of respondents indicated they increased full time headcount in 2014, a positive sign of improving employment. Additionally, 58 percent said they anticipate increasing full time headcount in 2015, while only 7 percent indicated they would decrease employment in 2015.

An interesting note is that as business performance has improved over the last several years, we have seen more companies using part of their built-up cash reserves to upgrade their executive talent.

Succession planning is an important issue for quite a number of respondents, as 63 percent indicated that the average age of their senior executives is over 50 years old. Thirty-four percent indicated that they anticipate a leadership transition in the next five years, while another 23 percent suggested this was a possibility.

**Average Age of Senior Executives**



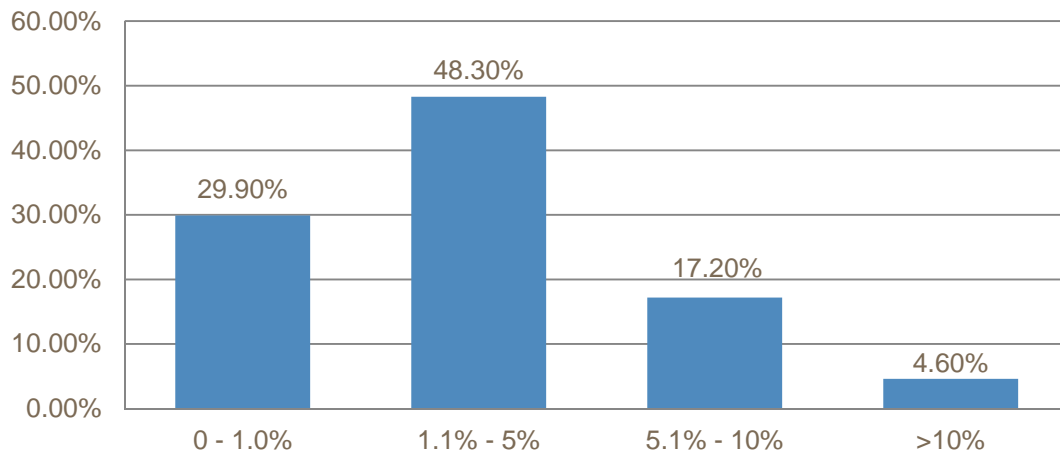
Many closely-held businesses do a poor job of properly planning for succession. Best practices suggest that succession planning should begin at least five years before the transition. Based on our survey results, many respondents should have already begun the process of identifying, evaluating, and training candidates to assume leadership roles. Information on the succession planning process can be found at Kreischer Miller's **Center for Private Company Excellence** website ([www.privatecompanyexcellence.com](http://www.privatecompanyexcellence.com)).

# Workforce Turnover

Labor turnover in 2014 was relatively low, with 78 percent of respondents indicating less than 5 percent turnover, including 30 percent reporting 1 percent or less. These findings are consistent with survey results from the past few years.

Seventy-six percent suggested that the majority of their workforce has been with the company more than five years. With the skilled labor force still somewhat tight, it is important to retain employees and our respondents seem to be doing an excellent job.

**2014 Labor Turnover Rate**



A positive trend we noted from this year's respondents was a significant increase in manufacturers partnering with vocational schools, high schools, and community colleges to develop skilled laborers. Almost 30 percent indicated at least a moderate involvement in these activities, compared to only 18 percent last year.

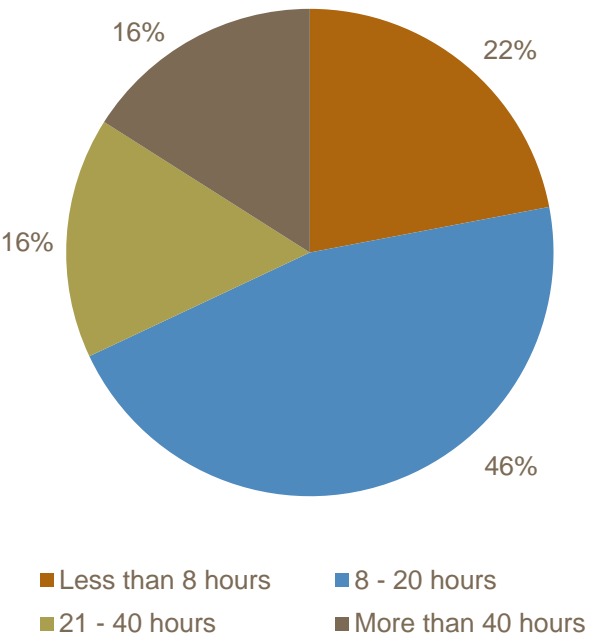
Local educational institutions need the input and involvement of manufacturing professionals to assist with developing appropriate curriculums that will help increase the availability of skilled labor. Those companies willing to participate in the process benefit by getting an inside track on internships and apprenticeships, and ultimately hiring top candidates after graduation. We continue to see this as an upside potential for manufacturers willing to actively engage in partnering with these schools.

# Employee Training

Another opportunity we see for respondents is in the area of training. The majority (68 percent) indicated that they train their labor force only 20 hours or less each year. Opportunities may exist to enhance employee training efforts to achieve greater efficiencies and effectiveness on the shop floor. Government-supported training programs such as Pennsylvania’s WEDnetPA can be a valuable source of funding for a wide range of basic skills and information technology training.

The rest of the respondents offer more training for plant employees. Sixteen percent offer between 21 and 40 hours, while the remaining 16 percent train more than 40 hours per year.

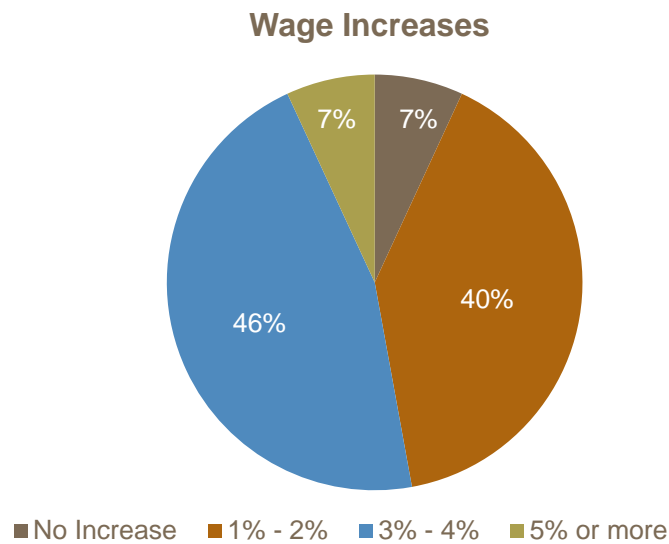
Average Annual Hours of Formal Training Received by Each Plant Employee



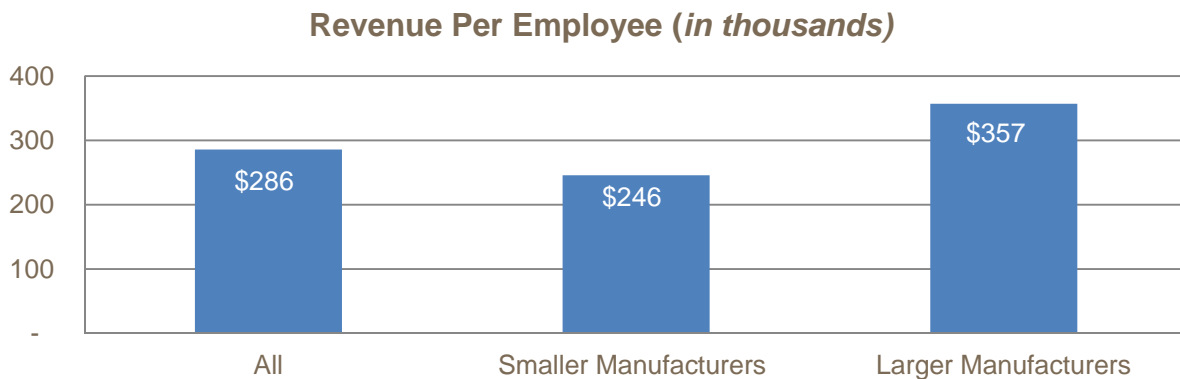
Companies can also access advanced training programs through the industrial resource centers that participate in the national Manufacturing Extension Partnership. For middle market manufacturers in the Greater Philadelphia region, these centers include **DVIRC** (covering southeastern Pennsylvania), **New Jersey Manufacturing Extension Program**, and **Delaware Manufacturing Extension Partnership**.

# Wages and Productivity

Eighty-six percent of respondents gave their production employees wage increases of between 1 and 4 percent. Seven percent gave no wage increases, while the remaining 7 percent gave increases of 5 percent or more.



In terms of employee productivity, the average revenue generated per employee for all respondents was \$285,000, with smaller manufacturers (less than \$20 million in annual revenues) averaging \$245,000 and larger manufacturers averaging \$357,000.



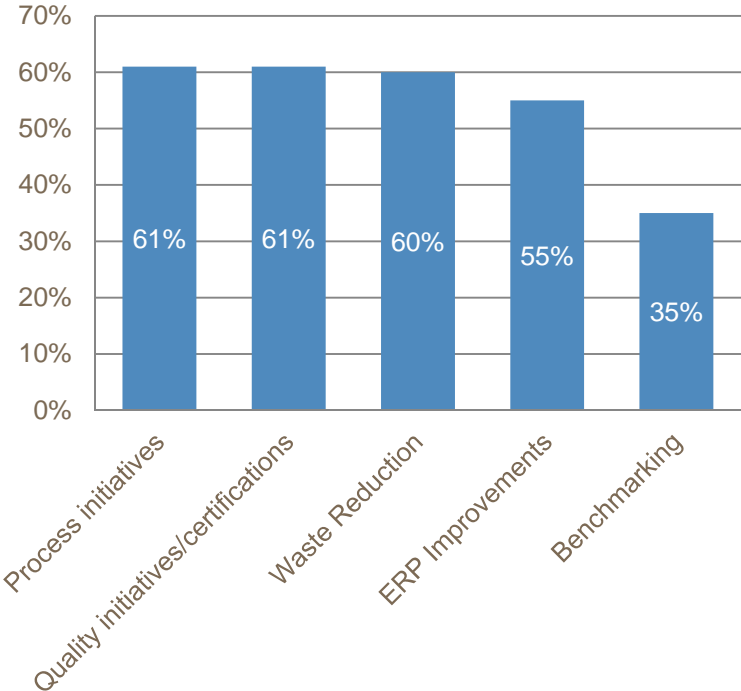
# Business Improvement Initiatives

Business improvement initiatives have been a mainstay of manufacturing companies for the last 30 years. We asked survey participants which commonly utilized business improvement programs are planned for 2015.

Process Improvement Initiatives (61%) and Quality Improvement Initiatives/Certifications (61%) tied for the most cited planned improvement initiatives, followed closely by Waste Reduction (60%) and ERP Improvements (55%). Benchmarking (35%) ranked lowest.

The application of process and quality improvement methodologies such as lean manufacturing and Six Sigma have proven very effective for manufacturers and their high utilization among our survey respondents is no surprise.

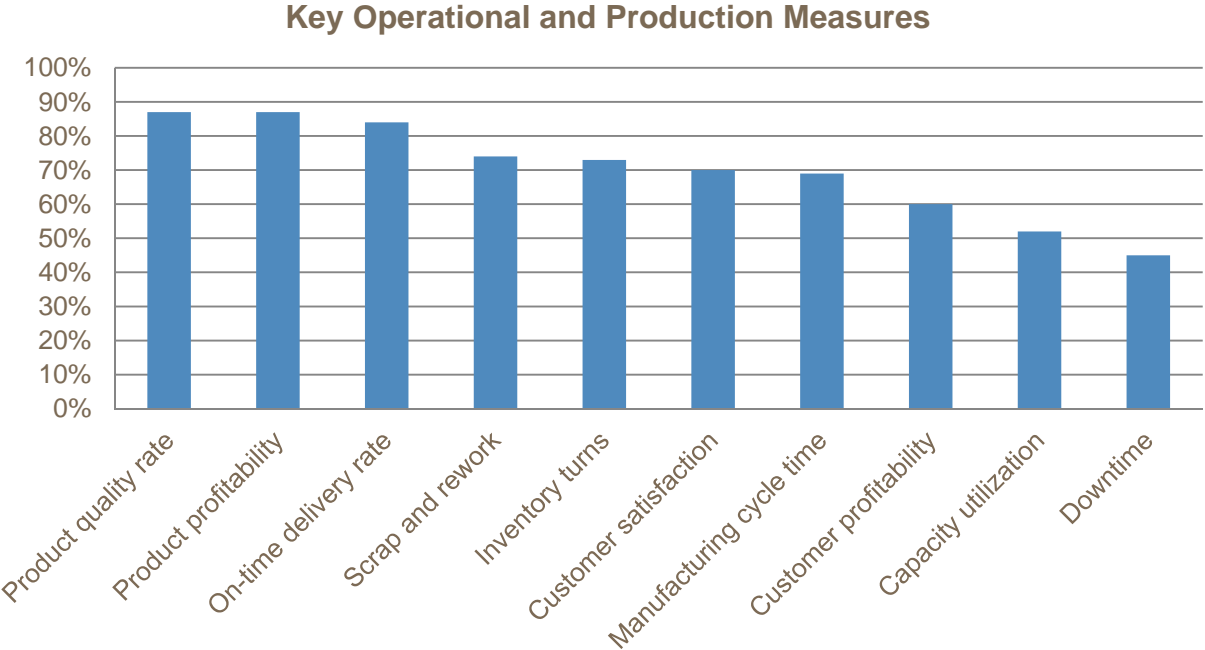
2015 Planned Improvement Initiatives



Benchmarking is an effective tool companies can use to compare themselves to their industry peers. However, benchmarking utilization continues to lag as many companies find the process to be daunting. Management dashboards are becoming an increasingly popular tool for manufacturing executives to stay informed and cultivate a proactive, performance-oriented organizational culture. Dashboards represent a paradigm shift in management reporting and, as such, can play a transformational role in helping organizations harness the power of their data in support of their performance management improvement efforts.

# Key Operational and Production Measures

When asked about the key operational and production measures being tracked within their organizations, respondents indicated a heavy emphasis on product quality rate (87 percent) and product profitability (87 percent). Other key measurements cited were on-time delivery rate (84 percent), scrap and rework (74 percent), inventory turns (73 percent), and customer satisfaction (70 percent).



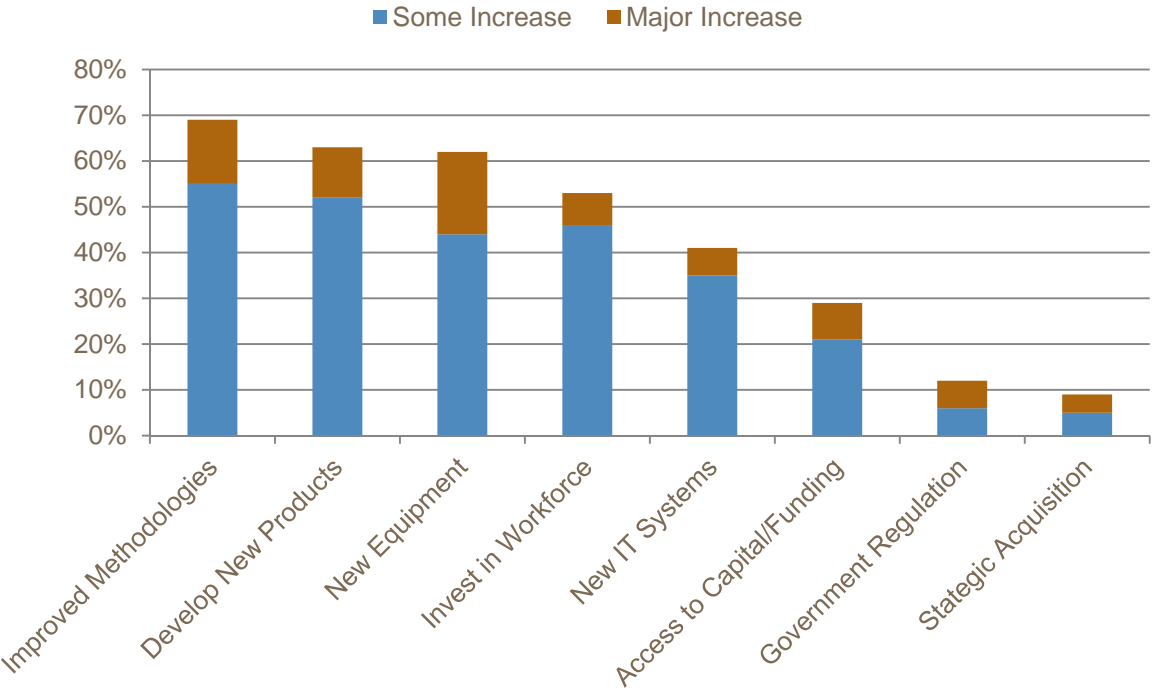
With many manufacturers experiencing margin pressure, it is not surprising that companies are reviewing product profitability to determine whether there are product lines that should be discontinued in order to focus efforts on more profitable ones.

A Product Portfolio Analysis (PPA) is an effective way to assess the contribution an individual product or product line is making to the company's results. The PPA uses a decision matrix to map products and assign weights to various factors or benefits for each product (sales volume, profit, brand identity, uniqueness, innovation, etc.) to determine the product's worth (or lack thereof) to the organization's goals.



# Profitability Improvements

Below are the key methods used by respondents to increase profitability in the past year.



**Improvements in Methodologies** – Improvements in processes and methodologies resulted in the largest increase in profitability among respondents (69 percent). This emphasizes the importance of developing more efficient processes to increase capacity and stay ahead of competition.

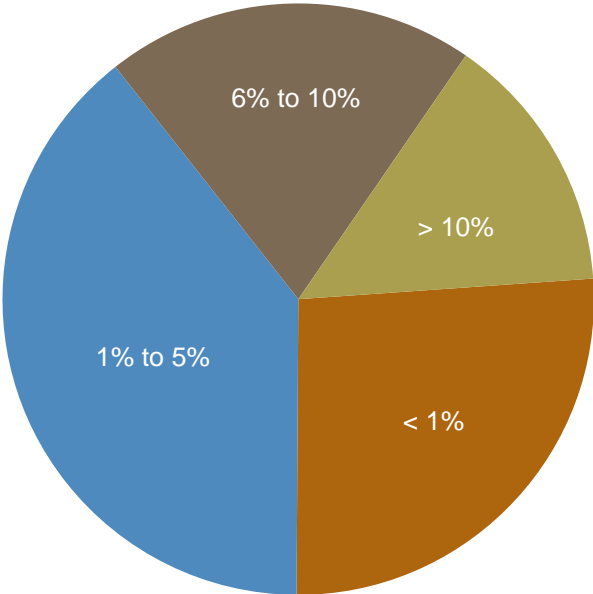
**Government Regulation** – We asked respondents about the impact of government regulation on 2014 profitability. While 12 percent noticed an increase, 34 percent indicated that government regulation *decreased* profitability.

**Investments in Equipment or Workforce** – When companies approach 80 percent production capacity, they begin to contemplate the need to bring on a new shift or invest in capital expenditures. Respondents opted for capital investments in new machinery (62 percent) rather than investments in their workforce (53 percent). By limiting workforce increases and utilizing more technologically advanced machinery, manufacturers can increase output and efficiencies. Recognizing this opportunity, 27 percent of respondents plan to *increase* their investments in capital equipment in 2015.

# Research and Development Activities

When asked what percentage of sales is reinvested in new product development (R&D), 14.3 percent of respondents indicated that more than 10 percent of sales were invested in R&D in 2014. As noted in the Profitability Improvements chart in the previous section, 63 percent of respondents noticed an improvement in profitability due to new product development efforts. In addition, 25 percent stated they plan to increase spending on development activities in 2015.

Percentage of Sales Invested in New Product Development



**TAX STRATEGY**

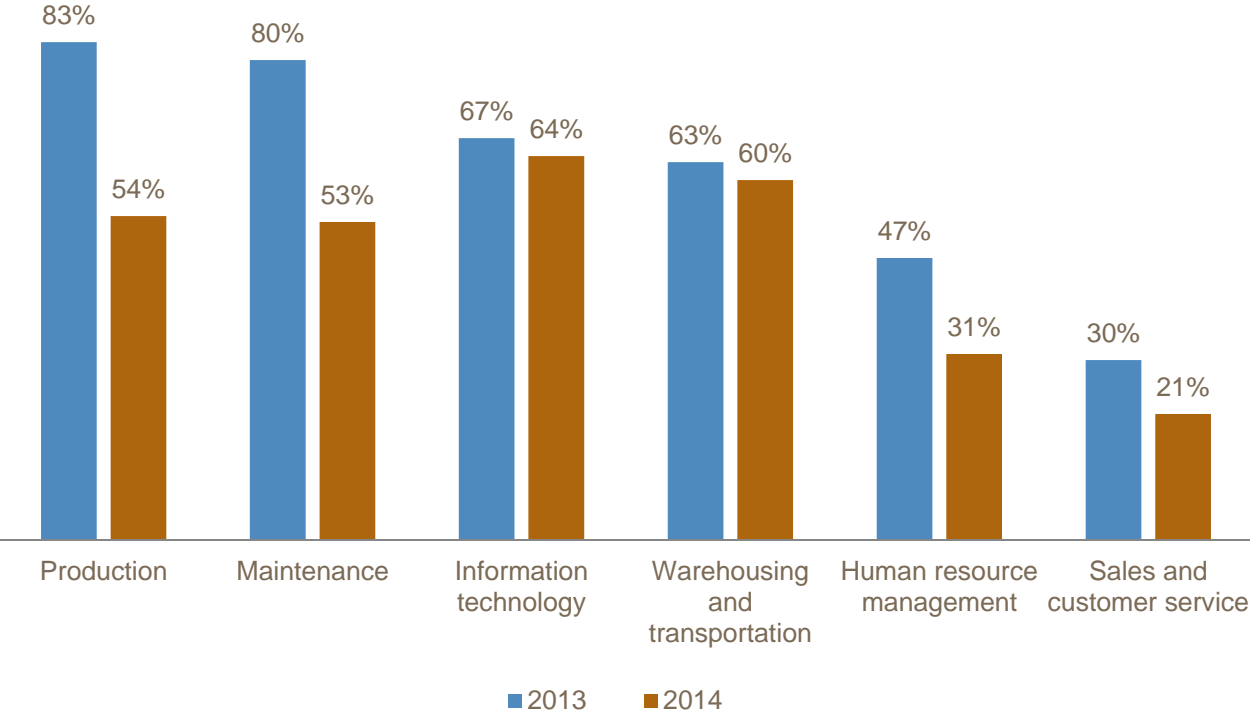
Manufacturers that spend significant time and resources to improve product designs and processes, as well as to develop new products, can benefit from the Research and Development tax credit. This credit can significantly reduce your overall effective tax rate, helping you compete more effectively in the global economy and providing more opportunities for funds to reinvest in the business.

# Outsourcing

Although outsourcing continues to be an important business capability consideration, our survey shows a significant shift in our region, as respondents indicated they are giving much less consideration to outsourcing some or all of their Production (54 percent), Maintenance (53 percent), and Human Resource management (31 percent) services.

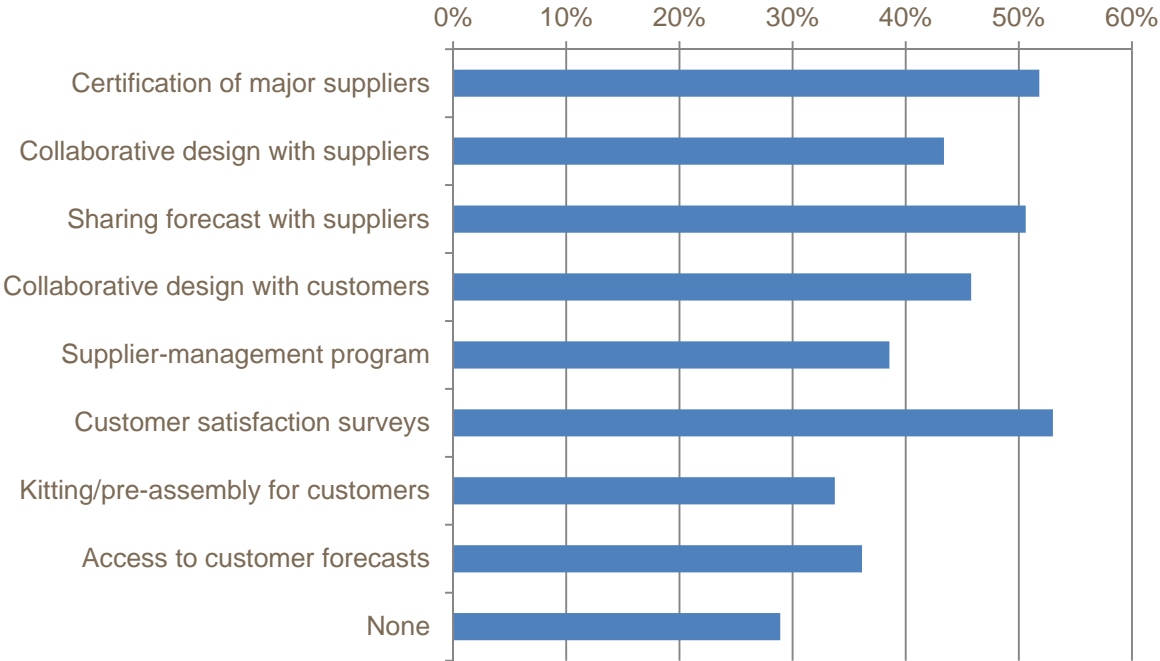
The majority of respondents continue to outsource some or all of Information Technologies (64 percent) and Warehousing and Transportation (60 percent) services.

**Percentage of Respondents Outsourcing Some or All Activities**



# Supply Chain Improvements

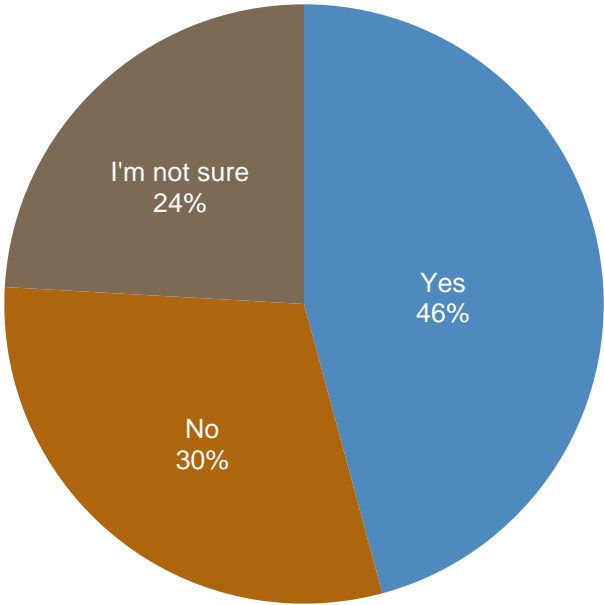
An optimized supply chain is a critical success factor for manufacturing enterprises, so much so that supply chain efficiencies are becoming a competitive advantage for many. Respondents indicated an increasing emphasis on supplier certification programs (52 percent) and customer satisfaction surveys (53 percent). Less emphasis is being placed on collaborative design activities with suppliers (43 percent) and customers (46 percent).



# Information Security

Given the importance of reliable and secure information technologies (IT) to any manufacturing enterprise and the recent high-profile IT security breaches, we asked respondents about their efforts to conduct periodic (at least once per year) IT risk assessment and intrusion detection exercises. While a good number of respondents (46 percent) indicated they conduct these activities on an annual basis, the majority do not. In fact, 30 percent indicated they do not engage in these practices at all, while 24 percent were not even aware of them.

Conducting IT security audits at least annually has proven to be an effective strategy in reducing IT security-related risks. These audits identify potential IT-related vulnerabilities that management can address by establishing remediation priorities.



# Summary

**Middle market manufacturers in the Greater Philadelphia region are very optimistic about their growth outlook for 2015, and with good reason.** They are coming off a year in which they realized appreciable growth and they are enjoying the current tailwind of the economic recovery. Over the past few years, many had set themselves up to take advantage of the recovery by embarking on process improvement and waste reduction initiatives.

Sustaining economic and regional manufacturing momentum will require significant and continuing investments in talent, capital equipment, and innovation. Amidst a recent shortage of skilled labor, it is great to see local manufacturers getting involved to help solve the problem. We noted our respondents have significantly increased initiatives to partner with regional educators and develop curriculums and programs needed to replenish our skilled labor pool.

Our survey respondents rely predominantly on domestic (U.S.) sales. While most indicated some level of international sales, regional manufacturers have an opportunity for further growth by expanding their sales territories to include more foreign markets. Manufacturers can lower the cost of doing business internationally by taking advantage of governmental resources and tax incentives such as the IC-DISC that are currently available to qualified U.S. exporters.

Respondents also indicated that they are investing in capital equipment and new product development to improve profitability, and they plan to continue in the coming year – some at even higher rates. Innovation could also yield significant tax savings in the form of tax credits that may be available to companies whose improvement efforts qualify as research and development activities.

Information technology continues to be a significant investment for manufacturers, whether systems are maintained in-house or outsourced. While manufacturers are undoubtedly aware of the importance of their IT networks and related business data, many underestimate their vulnerability to cybersecurity threats. Cybersecurity is a critical business concern that needs to be addressed as part of any company's risk management strategy.

Manufacturers in our region have joined forces to help each other identify needs and access available industry resources. They have also invested in talent development, capital improvements, and innovation. All of these factors are helping to build a solid foundation for the continued growth and future success of the manufacturing industry in the Greater Philadelphia region.

# Acknowledgements

We would like to thank the following organizations for their support.

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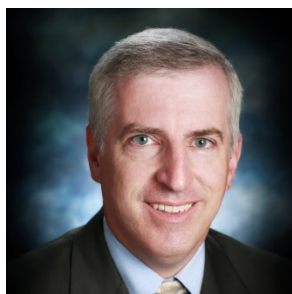
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**Our people are leaders in accounting and passionate about helping companies achieve their goals.**

## **Kreischer Miller's Manufacturing Industry Group**

With a significant portion of our revenue derived from our clients in the manufacturing industry, Kreischer Miller is one of the leading accounting firms serving manufacturers in the Greater Philadelphia area. Our experience with a diverse range of organizations—from smaller, local manufacturers to larger companies with national and international operations—gives us the background and depth to understand the challenges and opportunities that face the industry.

Kreischer Miller is also a member of the Manufacturing Services Association, a nationwide network of independent accounting firms specializing in serving the manufacturing industry.

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