

ThomasNet.com's



INDUSTRY MARKET BAROMETER®



SURVEY FINDINGS | SEPTEMBER 2013

TECHNOLOGY TRANSFORMS MANUFACTURING INTO A HOTBED OF INNOVATION

Manufacturers Must Address a Ticking “Biological Clock”
to Realize Growth

TABLE OF CONTENTS

EXECUTIVE SUMMARY | 3 |

DETAILED FINDINGS | 5 |

Growth Trend Continues | 5 |

How Companies are Directing Their Resources | 5 |

Innovation & Technology Pervade | 6 |

Investing for Growth | 7 |

Excited About Their Careers | 7 |

In Need of a Succession Plan | 8 |

Multi-Pronged Strategic Focus | 10 |

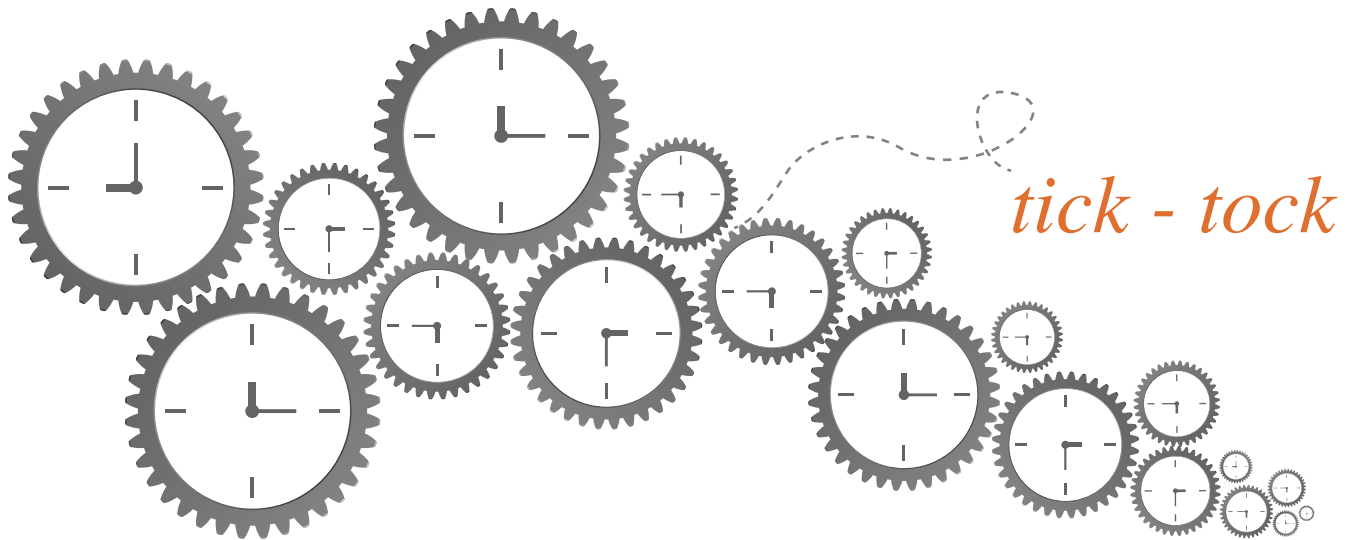
Exports – Small but Growing | 11 |

Time to Engage the Next Generation | 11 |

DEMOGRAPHICS | 13 |

METHODOLOGY | 14 |

ABOUT US | 15 |



EXECUTIVE SUMMARY

ThomasNet.com's Industry Market Barometer® (IMB) is an annual survey of buyers and sellers of products and services in the industrial market. Respondents are engineers and purchasing agents, business owners and managers, and sales and marketing executives from manufacturers, distributors and service companies.

The 1,209 professionals who responded are from North America. The majority represent small companies (fewer than 100 employees and less than \$10 million in revenue), mirroring the makeup of the industrial/manufacturing segment. Their responses provide a unique opportunity to peer into the strategies of these small, primarily private companies – a substantial portion of which are family owned and operated.

No other survey probes so deeply into the performance, outlook, and strategies of thousands of smaller industrial businesses.

Thirty years ago, the average person wouldn't have considered the U.S. manufacturing sector a hotbed of technological innovation. But today, technology is permeating every aspect of manufacturing, from design engineering to the factory floor, and from sales and marketing to business operations. It is also powering up America's manufacturing sector as an engine for wealth creation. Manufacturing accounted for about \$1.9 trillion, or almost 12 percent of the U.S. gross domestic product, in 2012.

This technological transformation is creating new opportunities for individuals and companies alike. ThomasNet.com's® 2013 Industry Market Barometer® (IMB) survey of more than 1,200 manufacturers paints a picture of a sector that is reinventing itself every day. These companies are growing, expecting future growth, hiring, and increasing their production capacity to meet additional demand. More than half (55 percent) of these manufacturers grew in 2012, and nearly two-thirds (63 percent) expect to grow this year. They credit their people, brands, technology, and innovation as the assets that help them continue to compete. Indeed, nearly seven out of ten (67 percent) will introduce new or innovative products/services this year as a growth strategy.

The IMB respondents aren't just inventing technologies; they're harnessing them to improve their businesses in multiple ways. For example, they are:

- Boosting productivity with more advanced CAD (computer-aided design) software, CNC (computer numerical control) equipment, and cloud computing
- Relying on “visual boards” for quick top line views of what’s happening all over their plants
- Using smartphones and tablets to monitor inventory for stocking and pricing
- Making custom products using technologies for additive manufacturing

But at a time when these innovations open new opportunities for manufacturers, a crack is slowly coming to the surface. The research reveals that a lack of talent from “rising generations” threatens this sector’s future vitality. The companies that ThomasNet surveyed are representative of today’s manufacturing workforce, which is heavily populated by employees who are 45 and older. With Generation Y (18-32 years old) expected to make up 75 percent of the workforce by 2025, and older employees exiting in droves, manufacturing’s “biological clock” is ticking away.

A closer look at the IMB findings reveals a jarring disconnect between the growth of manufacturers, and their lack of urgency when it comes to filling their pipeline of talent. For example, eight out of ten manufacturers report that younger employees represent a very small fraction of their workforce—and most don’t see this changing soon.

The findings point to a need for a collective “succession plan” for the manufacturing sector. As a starting point, manufacturers need to address the pervasive myths about what a career in American manufacturing really means. Three out of four IMB respondents (73 percent) say that negative perceptions about the profession are deterring new generations from joining forces with them. Yet, the same manufacturers are vocal about the many rewards that their industry offers. For example, they love inventing products that are improving people’s lives, and seeing them adopted all over the world. They’re proud of the quality that Made in America represents, and thrilled to contribute to their companies’ future.

Many of these manufacturers have developed creative partnerships with schools to engage their “best and brightest,” and they consider educators the ray of hope for their future. They continue to call on high schools to offer more skills training, and to increase their emphasis on science, technology, engineering, and mathematics. The jury is out on whether these efforts alone will be enough.

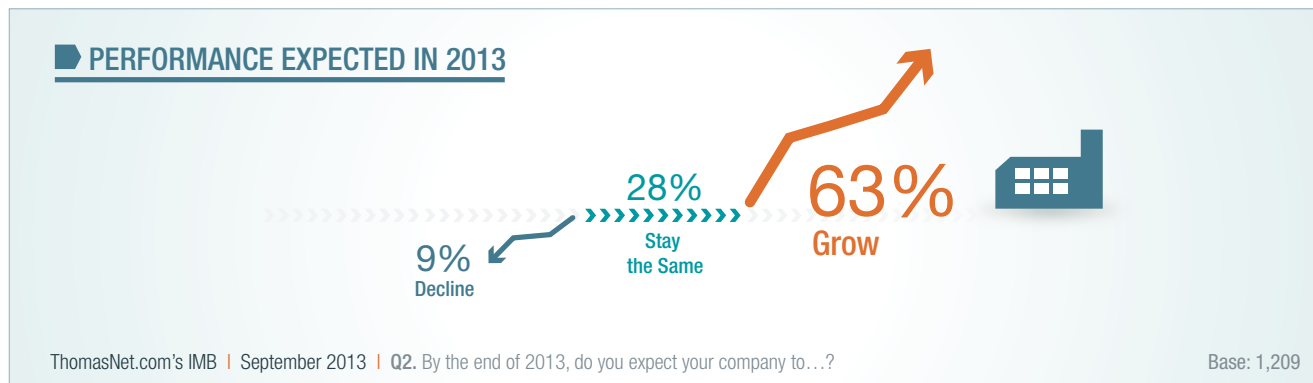
As a foundation of our economy, the manufacturing sector is strong, and technology continues to give companies more opportunities to grow. For example, more than half of the respondents (62 percent) say their websites have more impact than any other business-building tactic, online or offline.

The hard truth, though, is that changes in workforce demographics threaten to override these potential gains. For the manufacturing sector to benefit most in this era of innovation, those who love the industry need to step up efforts to share their passion with the next generation. ThomasNet’s Industry Market Barometer survey shows that the clock is ticking, and now is the time to move forward.

DETAILED FINDINGS

Growth Trend Continues

For the 7th consecutive year, business is trending up for manufacturers, according to results from this year's ThomasNet.com Industry Market Barometer survey. Of the 1,209 North American manufacturers that responded, more than half (55 percent) report business growth in 2012, and nearly two-thirds (63 percent) expect increases this year.

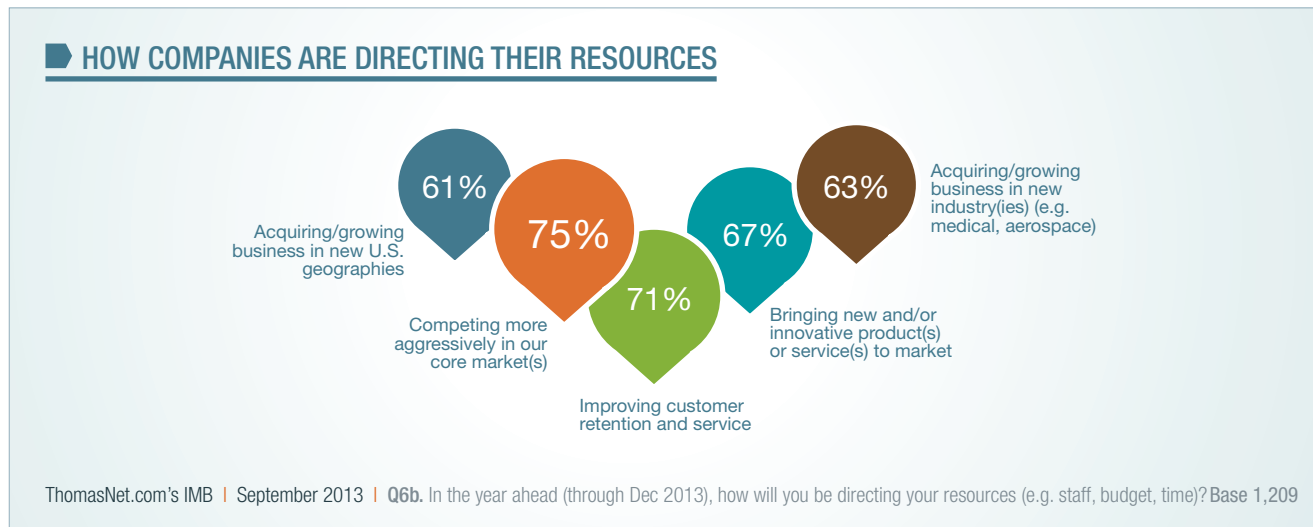


Respondents this year are product manufacturers (70 percent) and custom manufacturers. About two-thirds (64 percent) of the companies are small, with up to 100 employees. Almost 68 percent have annual revenues of less than \$50 million. The respondents who provided data are primarily owners, executives and general managers.

How Companies are Directing Their Resources

Manufacturers are directing resources into a number of strategies to boost sales this year. Respondents say overwhelmingly that this means competing more aggressively in core markets (75 percent) and improving customer retention and service (71 percent).

Other major strategies that respondents are pursuing for growth this year include diversifying by acquiring or growing business in new industries (63 percent) or in new parts of the U.S. (61 percent).



This is different from the factors that drove growth in 2012. While almost as many companies (73%) in the survey say that developing core markets generated more business last year, half of respondents also cited increases in average customer account value. Fewer companies reported customer service and retention as growth factors in 2012.

The top markets that companies identify as offering the most opportunities for growth in 2013 show little change from last year. They are aerospace and defense, fabricated metals, medical equipment and instrumentation, energy and utilities, and automotive.

Innovation & Technology Pervade

A significant change appears in the number of companies that expect to grow this year by adding new and/or innovative products and services. In fact, almost double the number, 67 percent, are doing this compared to those that reported growth in 2012 from new products and/or services. This increase signals a growing confidence in the market and a willingness to make capital investments. New products and services represent innovation, which almost half of respondents say is responsible for their competitiveness.

Innovation also suggests that companies are seeing payoffs from recent investments in new technologies. A sizeable proportion of respondents (42 percent), in fact, added technologies in the past three years, and slightly more say technology is a key factor in their competitiveness this year.

From the back office to the factory floor, technology is having a powerful impact on operations. Companies are increasing productivity with more advanced CAD (computer-aided design) software, more advanced CNC (computer numerical control) equipment and cloud computing. One respondent explained how changing computer programs and putting up “visual boards” all over the plant allows upper management to quickly assess what’s happening.

And another respondent says:

“Our company has transformed from a small manual welding shop to a national supplier of trailer-hitch, agricultural and job-shop products and processes by embracing technology to increase worker productivity.”

Further, respondents share that they’ve realized cost savings and better supply control by bringing previously outsourced processes in-house (e.g. metal stampings, molded components) or by adopting solar energy panels, upgraded energy-efficient lighting and company-wide recycling.

Investing for Growth

Manufacturers are making investments in their operations to support growth. Target areas reflect the need to accommodate higher production and closely monitor output and product-related expenses.

Productivity is by far the biggest focus, with 83 percent of companies reporting plans to increase manufacturing capacity. Two-thirds of respondents are upgrading their facilities. A large number of companies (73 percent) are including cost management in 2013 spending plans, as well, and 63 percent are upgrading inventory management.

One survey respondent reports a major boost from moving his company to a different part of the U.S. This reduced facility costs by 80 percent and shaved 50 percent off electricity charges with installation of energy-efficient lighting. “We have used the excess working capital to invest in newer equipment to improve manufacturing processes and increase production 15-20 percent,” he writes.

In addition to cost savings, manufacturers are staying competitive this year by promoting their market leadership and agility. Coupled with their strategic focus on innovation and their continued advances with new technologies, manufacturers are poised to meet their growth expectations for 2013.



There are challenges, though, despite the improving business climate. Respondents identify price pressure as a top concern, followed by domestic competition and customers cutting back on purchases or going out of business. Other issues include overseas competition, rising energy costs and unfavorable business conditions (e.g., taxes, trade barriers, regulation).

Excited About Their Careers

Survey respondents are excited about their careers and, at the same time, acknowledge the need to promote its advantages. One-half of this year's respondents say that a career in manufacturing delivers the satisfaction of making something tangible, along with competitive wages and benefits. “Always learning. Never doing the same thing every day,” stated one respondent.

Although 60 percent of respondents believe most people understand that manufacturing is a stable, well paid and personally satisfying profession, nearly three quarters (73 percent) say negative perceptions persist that influence young people to disregard it as a career path. There is a need to revamp the image manufacturing has for many young people as an undesirable occupation.

In fact, the reality of a career in manufacturing, according to survey respondents, is a stark contrast to the negative perceptions. Many respondents point to an environment that thrives on change (48 percent), and to the pride of developing and producing American-made goods (46 percent). And, well more than one-third of respondents (41 percent) tout the entrepreneurial and growth opportunities of manufacturing.



In Need of a Succession Plan

Although 74 percent of respondents say workers are their most important assets, the makeup of the workforce is problematic. This is because manufacturing faces a "biological clock" that is rapidly winding down when it comes to recruiting and training the next generation of workers.

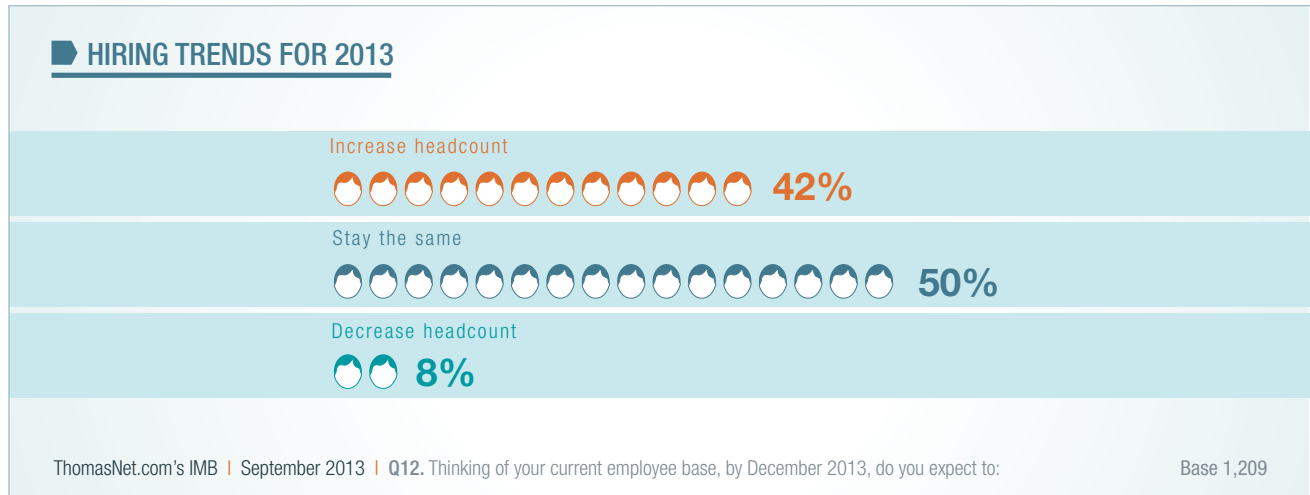
Manufacturing is heavily populated by Baby Boomers, the post-World War II generation that is at or near retirement age. Consider this: 78 percent of survey respondents describe themselves as 45-65 or older. Of these, 35 percent are 55-64.

There is an untapped workforce, though, in a vast reservoir of young workers ranging in age from 18-32 and known as the Millennials, which is expected to comprise 75 percent of the national workforce by 2025. Add this workforce of the future, Generation Y (the Millennials), and Generation X (32-48], and it is apparent that the industry needs a viable succession plan to recruit them.

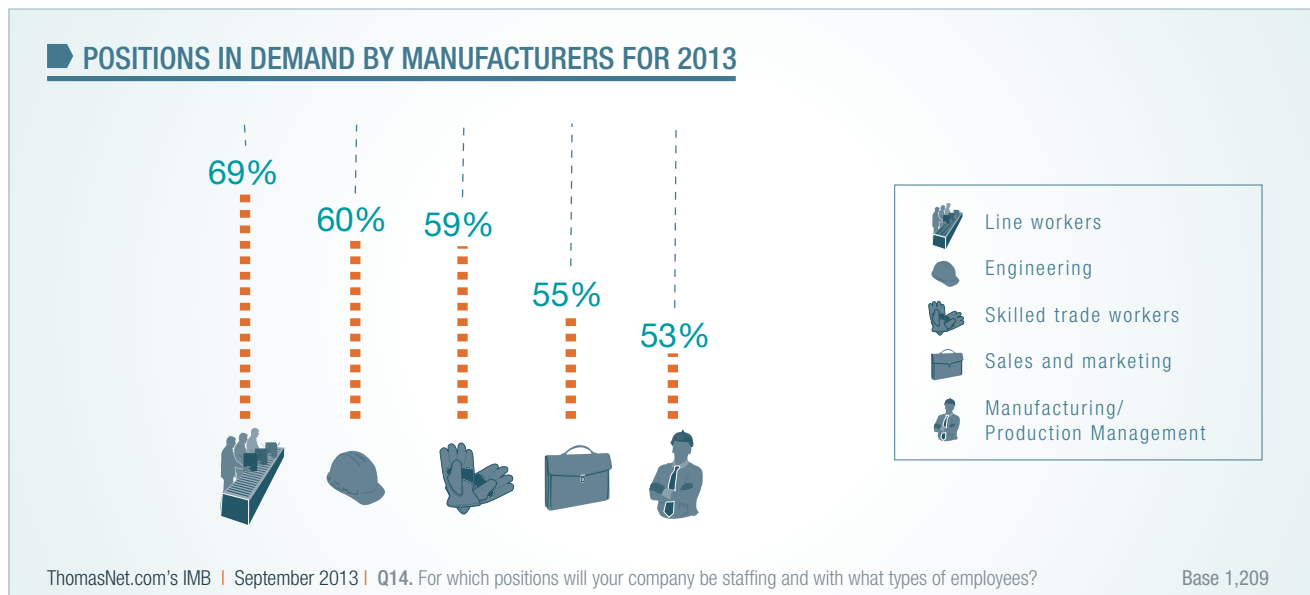
However, there's a disconnect with the upward trajectory of manufacturing and the lack of urgency to recruit the next generation of workers. In the survey, three-quarters of manufacturers report that

25 percent or less of their workforce are in the Generation Y age group. And while 29 percent of respondents say they will increase employment of Generation Y workers in the next two years, almost one-half (49 percent) expect the numbers to stay the same.

Considering that many companies (42 percent) are increasing employee headcount this year, the time to cultivate a new workforce is now.



Of the positions to fill, 60 percent of respondents are looking for engineers, 59 percent want skilled trade workers, 55 percent are hiring sales and marketing people, and 53 percent seek manufacturing/production management personnel.



In addition, 50% of respondents are maintaining current employment levels for 2013. All of which bodes well for job security and advancement.

However, a lack of basic skills in young workers is a drawback to recruitment. More than one-quarter of companies (27 percent) say high schools should offer more technical training to

encourage students to pursue manufacturing careers. Other suggestions include greater emphasis on STEM (science, technology, engineering and math) courses, along with more partnerships between manufacturers and colleges and technical schools to inform students about industry opportunities.

Respondents also see value in providing internships and apprenticeships, and in parents encouraging their children to consider or choose manufacturing careers.

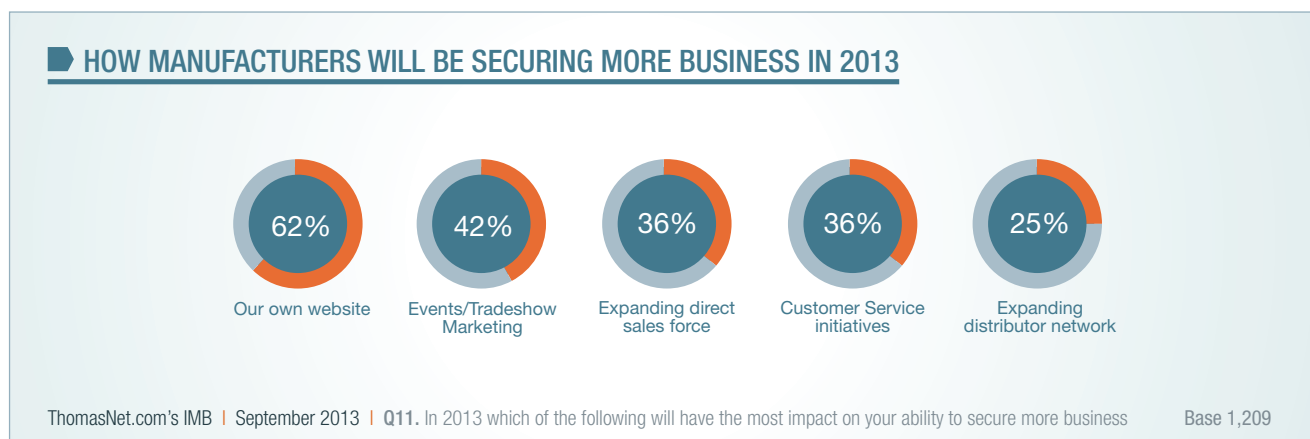
In fact, the two major areas from which 51 percent of manufacturers recruit young workers are apprenticeship and internship programs. Other important venues are local technical schools and community colleges, career fairs at high schools and middle schools, and for 23 percent of respondents, family-owned businesses that bring family members into the industry.

Multi-Pronged Strategic Focus

One major finding from the study is that websites are soaring in the role they play in business development. For 2013, nearly three times as many manufacturers (62 percent) as compared to 2012, say their websites will have the most impact on securing more business. In 2012, respondents ranked a company's website 6th in reaching current and prospective customers as a means of building business.

"We have built a great website with ThomasNet that indexes and cross-references thousands of [our] parts," says one respondent. "It has been a huge driver of new business for our company."

Website-based messaging is clearly the leader in generating more business for respondents this year. But other, more conventional platforms figure in plans, as well. These include: events and tradeshow marketing; expanding the direct sales force; customer service initiatives; and adding to a distributor network.



With the number of companies using websites to build business, it's clear that respondents are not shying away from embracing new ways of reaching customers, current or potential. Ongoing success in this area makes the web, including social media sites, an integral part of marketing operations for respondents.

Digital marketing strategies are, in fact, in use by many manufacturers. The leading choices are email, social media, publishing company information on third-party sites such as ThomasNet.com, and online display advertising.

“We are getting our message out to the world through the Internet, an improved website and social media,” affirms one manufacturer.

Exports – Small but Growing

Another factor in business growth for survey respondents is exports. Nearly 30 percent of manufacturers that export plan to increase this business in 2013 compared to only 25% of respondents in the 2012 survey. And, two-thirds say their activity will at least remain the same this year.

The top countries that respondents target for exports are mostly developing nations: China, Brazil, Mexico and India, although Germany is also a viable market.

One respondent stated: “I personally believe that the U.S. remains a robust manufacturing power, despite what is going on in China. America has some clear competitive advantages over its emerging-market rival. Moreover, inexpensive manufacturing labor will not be a factor for long with the acceleration of technology. The U.S. is still the largest manufacturing country in the world.”



Time to Engage the Next Generation

The IMB survey shows that North American manufacturing is robust and growing. Respondents are embracing new technologies, both for production and for marketing, to promote their capabilities to a wide-ranging audience. They also continue to work aggressively to develop business in conventional ways, such as expanding in core markets, increasing the services they provide to win customers and keep existing ones, and by taking a closer look at new markets.

At the same time there is a problem in the development of the industry's lifeblood: next-generation workers. These are the people who will learn the industry, build the businesses and develop the innovation that makes manufacturing a world-class enterprise. And, they will run the companies, or start their own, that will design and produce goods yet to be imagined.

None of these challenges is insurmountable. If manufacturing is anything, it is adaptable to the needs of the business environment in which it operates. Many good ideas exist to advance the industry and recruit the next generation of workers. As manufacturing continues its upward trend, now is the time to begin implementing them.

“As a foundation of our economy, the manufacturing sector remains vibrant, but cracks are coming to the surface. Changes in the workforce demographics and old attitudes about manufacturing as a career threaten the industry’s expansion. It’s time for those who love American manufacturing to double their efforts to engage the next generation,” said Eileen Markowitz, President, ThomasNet.

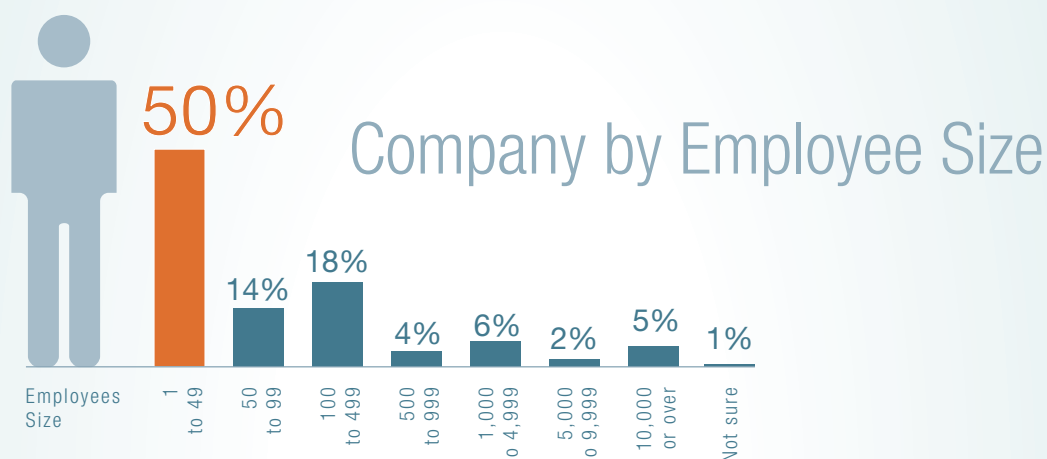
DEMOGRAPHICS

There were a total of 1,209 manufacturer and custom manufacturer survey respondents from North America, primarily the U.S. The overwhelming majority represents small and mid-size businesses [SMBs], mirroring the industrial marketplace, most notably:

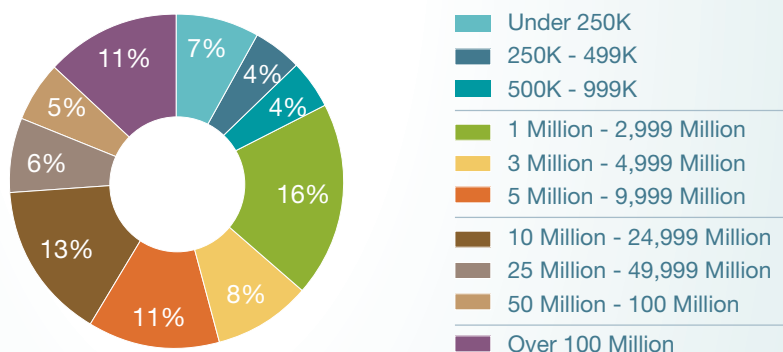
- About two-thirds (64 percent) of the companies are small, with up to 100 employees.
- 68 percent have annual revenues of less than \$50 million.

The respondents who provided data are primarily owners, executives and general managers. As buyers and sellers of industrial products and services, 70% are from manufacturing, durable or non-durable, and 30% are from custom manufacturing services companies.

RESPONDENTS REPRESENT MOSTLY SMALL BUSINESSES

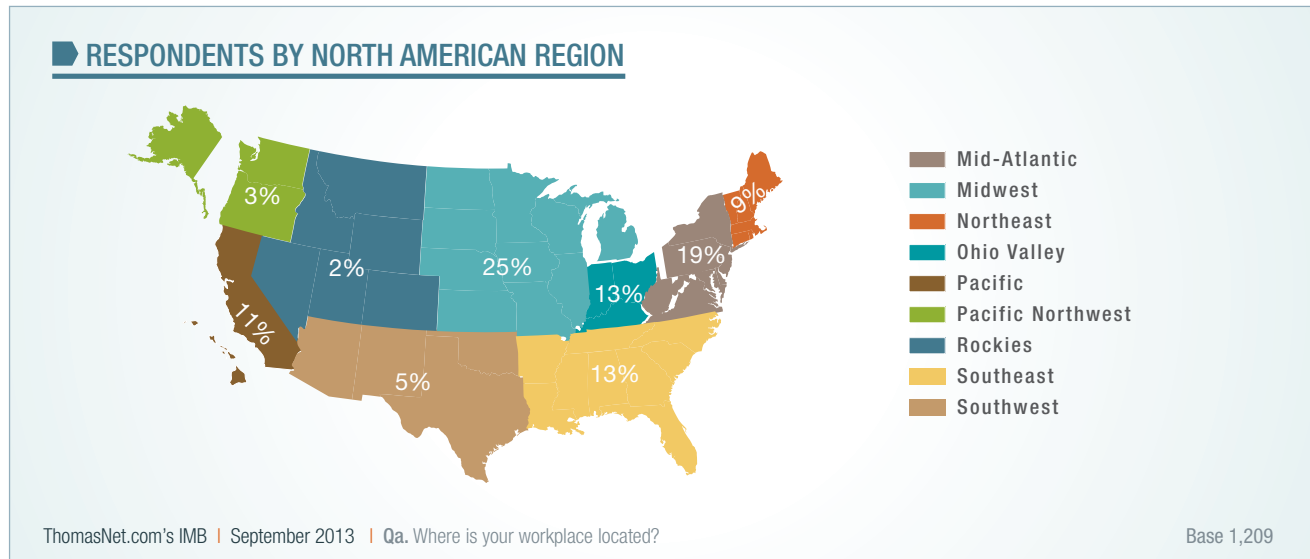


Company by Revenue



ThomasNet.com's IMB | September 2013 | Q22. How many employees does your company have, including all locations? Q26. What are your company's current revenues?
Base 1,209

From a geographic perspective, the largest groups of respondents represent the Midwest [25 percent], Mid-Atlantic [19 percent], Southeast and Ohio Valley [each 13 percent] and Pacific [11 percent].



METHODOLOGY

The Industry Market Barometer [IMB] 38-question survey was conducted during a 6 week period: April 15th to May 24th, 2013. There were 1,209 manufacturing and custom manufacturing respondents throughout North America.

Respondents were invited to participate through the following:

1. ThomasNet's Industry Market Trends® (IMT) newsletters distributed to over 350,000 readers.
2. The Link™, ThomasNet.com's monthly newsletter distributed to 430,000 site registrants.
3. The Industrial Marketer®, a weekly newsletter distributed to more than 60,000 owners/managers and sales/marketing professionals from product and custom manufacturers, service providers and distributors.
4. Outbound emails to registered users and clients of ThomasNet.com.

ABOUT US

ThomasNet is an information and technology company that connects manufacturing and industrial buyers and sellers.

ThomasNet.com is industry's leading supplier discovery and product sourcing platform for engineers, procurement professionals, plant and facility management and other buyers in industrial, manufacturing, commercial and institutional businesses, government agencies, the military and both small and large corporations. Built on the foundation of The Thomas Register of American Manufacturers, ThomasNet.com offers unparalleled content and tools to extend the ability to find suppliers of components, equipment, MRO products, raw materials and custom manufacturing services in ways like never before.

The hallmark of the platform is its supplier discovery application that allows for easy qualification of local, diverse or quality certified suppliers that meet unique needs. The over 610,000 manufacturers, distributors, and custom manufacturers included can be evaluated by reviewing multi-page, information-packed profiles that include capabilities, equipment lists, product information, locations, CAD drawings and more. Shortlist and RFI functionality advance the buying process.

The platform also offers a groundbreaking Product Sourcing Application which combines semantic search with a unique product taxonomy, enabling buyers to find line item detail on more than 100 million parts. Raw materials, components, and finished products can be easily sourced by attribute, specific keyword or part number. ThomasNet.com is the only free platform of its kind.

ThomasNet News is ThomasNet's network of online publications and electronic newsletters delivering the latest news and trends affecting manufacturing and industry. ThomasNet News' goal is to give manufacturers the market intelligence they need to run their businesses effectively, and includes the flagship Industry Market Trends (IMT) along with several market-specific journals, including Career Journal, Machining Journal and Procurement Journal.

How Suppliers Connect to the ThomasNet.com Audience

ThomasNet offers manufacturers, distributors and service providers proven ways to create, optimize and promote their product/service content to generate better quality leads, reach new markets and increase sales.

Our solutions range from content-rich company profiles and branding opportunities with ThomasNet News, to a strategic presence on ThomasNet.com. Additionally, we offer solutions to help manufacturers distribute their product data across numerous channels, basic website design, complex websites with online product catalogs, project portfolios, downloadable 2D/3D CAD models, and product configurators. ThomasNet also offers a range of digital solutions including social media, SEO services and email marketing.

Thomas' Enterprise Solutions team works directly with companies to effectively manage digital product data for syndication across a variety of enterprise-wide systems and sales channels to meet their strategic business needs. The Navigator Platform, our proprietary technology, is the central place through which we help our clients manage their information. The Platform enables CAD publishing, product configurators, online catalogs, and syndication of detailed product data to channel partners.

For more information:

- Buyers and specifiers can request customized demos of **ThomasNet.com** for their company by contacting kcarty@ThomasNet.com.
- Suppliers can go to **PromoteYourBusiness.ThomasNet.com** to find out more, or call **(866) 585-1191**.

Contact Information:

Linda Rigano
Executive Director, Media Relations
Thomas Industrial Network, Inc.
5 Penn Plaza
New York, New York 10001
Email: lrigano@thomasnet.com
Phone: (212) 629-1522