



Made in America?
What the public thinks
about manufacturing today

Executive summary

Economists, business and government leaders all keep a close eye on the fortunes of the U.S. manufacturing sector, knowing the impact it has on the broader business environment. But what about the public? After all, their views of the manufacturing sector help shape public policy and have a direct impact on the talent pool. If you have a dim view of manufacturing, you're not likely to pursue a manufacturing job or support the construction of a new plant in your community.

Our recent survey of the American public's opinions on the manufacturing industry and its future show a nation that is surprisingly bullish on the skills and abilities of our workforce in the face of global competition. They believe manufacturing is vital to our nation's economy, and believe U.S. workers bring the right mix of skills and motivation to the table. Plus, they think the strength of the workforce is one of the most important factors in our success. When asked to select from a list of 21 attributes that could contribute to creating a competitive advantage or disadvantage for American manufacturing globally, respondents identified the top three most important as work ethic, a skilled workforce, and worker productivity – well ahead of non-workforce related attributes such as infrastructure and natural resources.

But at the same time, Americans are concerned about U.S. government policies and leadership in the area of manufacturing – respondents singled out state and federal government leadership, tax rates on individuals, and government business policies as their three top areas of concern. In short, they believe we have what it takes – but they're not seeing the type of leadership and policies required to keep the manufacturing industry healthy and successful in the long run. So it should come as no surprise that they are less likely to pursue jobs in manufacturing or encourage their children to consider these jobs in the future.

All of this occurs at a moment at which keeping the U.S. manufacturing industry on the right track is of vital importance because the industry has taken some serious blows in the wake of the global recession. The U.S. has lost 2 million manufacturing jobs as a direct result of the recession.¹ States that used to compete with one another for new factories and manufacturing jobs are now going head-to-head with foreign governments all over the world. These countries are creating aggressive tax and trade policies and negotiating trade agreements to position themselves to win in the new global economy.

Americans say U.S. workers have what it takes to compete. But when it comes to government policies, the jury is out.

Meanwhile, skills shortages persist. Even at the height of the global recession, companies reported shortages in skilled production workers, scientists and engineers.² The advanced manufacturing industry of today requires a technical workforce with math and science skills. And so-called "lean" manufacturing approaches require production workers who bring sharp team-building, problem-solving and numeracy abilities to the job.³

These are not threats to take lightly. Manufacturing supports an estimated 18.6 million jobs in the U.S.⁴ — roughly one in six private sector jobs. According to 2008 data from the United Nations Statistical Division, the U.S. still leads the world in manufacturing value added to GDP at \$1.83 billion, but China is now a close second at \$1.79 billion.⁵

1 National Association of Manufacturers, "Manufacturing Strategy – For Jobs and a Competitive America," June 2010.

2 Deloitte, Oracle and The Manufacturing Institute, "People and Profitability Study: A Time for Change," 2009.

3 U.S. Center for Education Statistics, 2006.

4 The Manufacturing Institute, "The Facts About Modern Manufacturing," 8th Edition, 2009.

5 United Nations Statistical Division, National Accounts Main Database

Annual public view on manufacturing study background

Our annual research initiative was created to provide a running view of the U.S. public's perspectives on manufacturing. Taken together, they are an important bellwether for public policy and shifting attitudes regarding the manufacturing industry. Our research focused on three main areas:

- Manufacturing importance and image
- Future outlook for manufacturing and the talent pool
- Competitiveness environment and areas for improvement

The right skills for the job

While public opinion indicates strong confidence in the abilities of American workers, many manufacturers report that they cannot find workers with the skills required in today's advanced manufacturing workplace.

To counter this trend, The Manufacturing Institute has created the NAM-Endorsed Manufacturing Skills Certification System targeting deficits in education and training. This system of portable, industry-recognized credentials validates the skills and competencies needed in entry-level manufacturing jobs. It confirms both technical and non-technical skills, helping ensure the right combination of "book smarts" and "street smarts" to succeed in a manufacturing environment. Plus, participants receive college credit while earning their certification, moving them closer to college degrees.

Today, the Skills Certification System is fully deployed in four states, and twenty additional states are in the planning phases of statewide implementation.

Key findings

Here's a closer look at some of the most important takeaways from our study.

Americans continue to believe manufacturing is vitally important

Americans have a strong view of the importance of manufacturing, with 78% saying it's very important to our economic prosperity, and 76% indicating that it is very important to our standard of living. In fact, in this year's survey it ranked second in its importance to a strong national economy, behind the energy industry, but ahead of technology, financial services, healthcare, communications and retail. It's also important to note that these findings are remarkably consistent from year to year, even in light of (or perhaps because of) recent economic volatility.

They think we have the skills and resources to compete globally

Sixty percent of respondents indicated that the U.S. manufacturing industry can effectively compete in global markets. Why? They believe we have significant advantages in key areas: Technology use and availability, a skilled workforce, and strong R&D capabilities. They consider the strength of U.S. workers to be a key component of our competitiveness. When asked to select from a list of 21 attributes that could contribute to creating a competitive advantage or disadvantage for American manufacturing globally, respondents identified the top three most important as work ethic, a skilled workforce, and worker productivity – well ahead of non-workforce related attributes such as infrastructure and natural resources.

Americans want to strengthen the manufacturing industry

Seventy-five percent of respondents believe that the U.S. needs a more strategic approach to developing its manufacturing base. Roughly the same percentage believe the country should invest more in the manufacturing industry. And 68% believe developing a strong manufacturing base should be a national priority.

While they believe our workforce has the right stuff, Americans are concerned about the future of the industry

Today, only 30% of respondents would encourage their children to pursue a manufacturing career, despite encouraging improvements in their perceptions about the jobs. For instance, 44% believe the jobs offer a safe, clean environment — an improvement over past years. And 63% strongly agree that manufacturing is high-tech, requiring well-educated, highly skilled workers. Why the discrepancy between the importance they place on manufacturing and the high tech image of manufacturing they now share — and their interest for their children or themselves to pursue careers in the manufacturing industry? Certainly the struggling economy plays into this issue, with nearly one-third of respondents indicating that manufacturing activity will weaken over the next year. More telling, however, is that over half (55%) believe the long term outlook for manufacturing in the U.S. will weaken, and only 8% of respondents believe the manufacturing sector will become stronger over the long run. And this is despite the fact that the majority of Americans believe we can compete globally in the manufacturing industry and the many strengths Americans believe this country has to offer around technology capabilities, R&D capabilities and the strong faith they have in the American worker. This issue appears to be wrapped up in something other than the economy — the government.

Americans are concerned that government policies are putting the manufacturing sector at a disadvantage

Respondents were asked to rate the contribution of a long list of factors that could be creating either a competitive advantage or a competitive disadvantage to America's manufacturing industry — everything from natural resources to the workforce, to our education system, to tax policies and government leadership. When viewed together, the results are striking. For the most part, the public believes we have all the "raw materials" to succeed in manufacturing. Technology. Workforce. R&D. Energy. Natural resources. All of these received high marks. But at the other end of the spectrum, a cluster of disadvantages told another story. Government business policies, corporate and individual tax rates, federal and state-level government leadership, and trade policies were viewed as the most significant disadvantages or concerns when it comes to the success of the manufacturing industry in the U.S.

Closing the gap

While Americans believe manufacturing is of vital importance to the country, they are reluctant to pursue jobs in the industry. Manufacturers today face a serious recruitment challenge: How can they generate interest in manufacturing jobs when so many negative stereotypes about manufacturing persist?

The Manufacturing Institute has developed a web-based recruitment strategy to help address this problem, using targeted messaging, social media and other innovative engagement strategies to start changing public perceptions — starting with students. The "Dream It. Do It." Program is now active in twenty states, providing useful information on the new reality of manufacturing for 16-26 year-olds. Technology. Innovation. High-paying jobs. These are a few of the new attributes of manufacturing that "Dream It. Do It." shows in action.

Manufacturing's importance and image

Manufacturing continues to be viewed as an important industry for both the national economy and at the community level. Respondents indicated that manufacturing requires increased support and investment.

While most believe manufacturing is a high-tech industry requiring well-educated, highly skilled workers, there are still some lingering concerns regarding pay and safety.

Chart 1. Percentage of respondents who believe the manufacturing industry is very important to our:

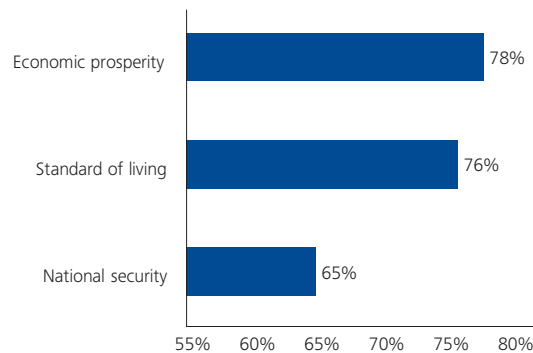


Chart 2. Percentage of respondents who strongly agree or agree with each statement:

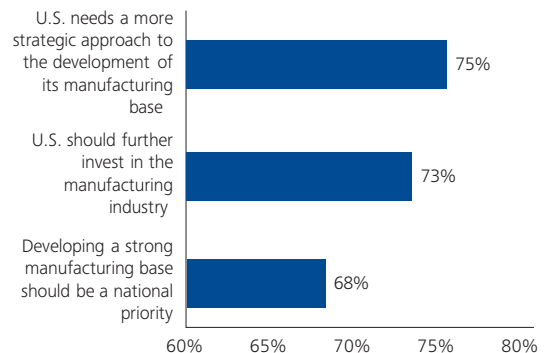


Chart 3. Ranking of industries viewed by respondents as most important to maintain a strong national economy in the U.S.

Industry	Rank
Energy industry	1
Manufacturing industry	2
Technology industry	3
Financial services industry	4
Healthcare industry	5
Communications industry	6
Retail industry	7

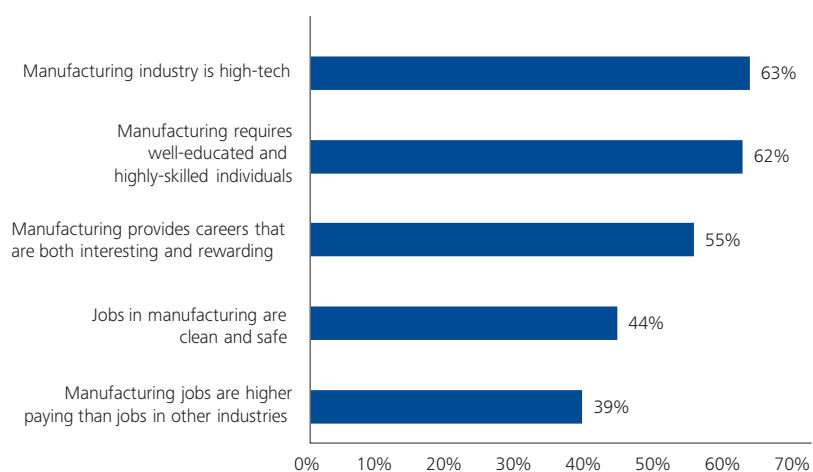
(Aggregate ranking of sectors by all respondents)

Chart 4. Ranking by respondents of the type of new industry facility they would support to create 1,000 new jobs in their community

Facility	Rank
Energy production facility	1
Manufacturing facility	2
Technology development center	3
Healthcare facility	4
Communications hub	5
Financial institution	6
Retail center	7

(Aggregate ranking of sectors by all respondents)

Chart 5. Percentage of respondents who strongly agree or agree with each statement:



Future outlook for manufacturing and the talent pool

While most Americans believe manufacturing is vital to our country's economic success, they share broad concerns about its future — which is reflected in their reluctance to pursue a manufacturing career. Manufacturing ranks near the bottom of the list of industries where respondents would choose to start their careers. Perhaps even

more distressing is the significant difference between the opinions of the broader public and those between the ages of 18 and 24, who are less likely to view the U.S. manufacturing industry as important, interesting, or globally competitive.

Chart 6. Ranking by respondents of industry preference if they were beginning their career today

Industry	Rank
Technology Industry	1
Energy Industry	2
Healthcare Industry	3
Communications Industry	4
Financial Services Industry	5
Manufacturing Industry	6
Retail Industry	7

(Aggregate ranking of sectors by all respondents)

Chart 7. Percentage of respondents who strongly agree or agree with each statement:

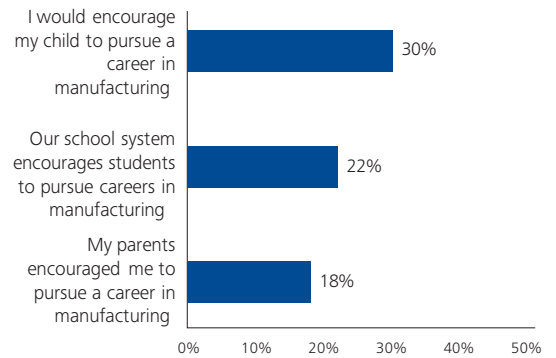
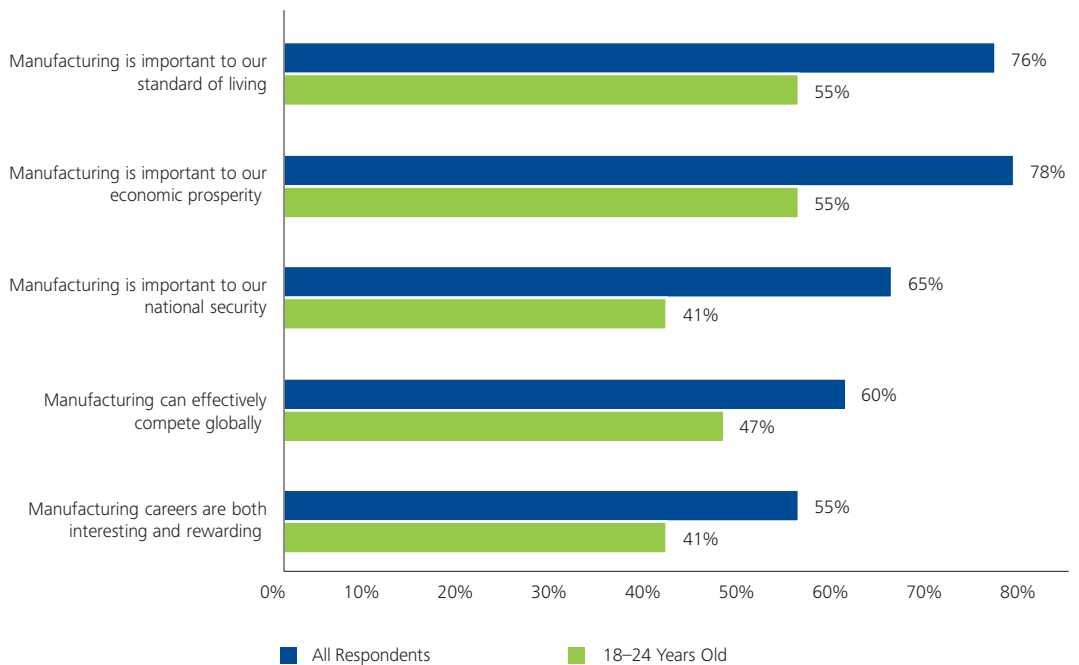


Chart 8. Comparison of total respondents who strongly agree or agree with each statement:



Competitiveness environment and areas for improvement

Most Americans think our manufacturing industry can compete on the global level. But they don't actually see it happening in the long term — 55% of respondents expect the long-term outlook for manufacturing to weaken. What accounts for the difference? According to respondents, it's government policies and leadership.

Chart 9. Percent of respondents who think the U.S. manufacturing industry can effectively compete in global markets:

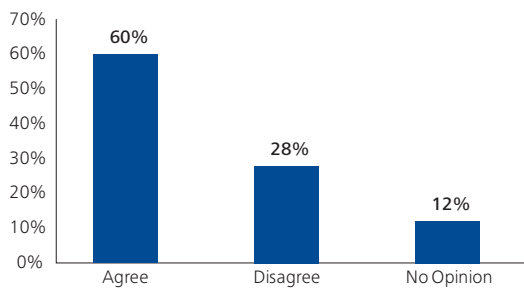


Chart 10. Respondents views on strength of the manufacturing sector

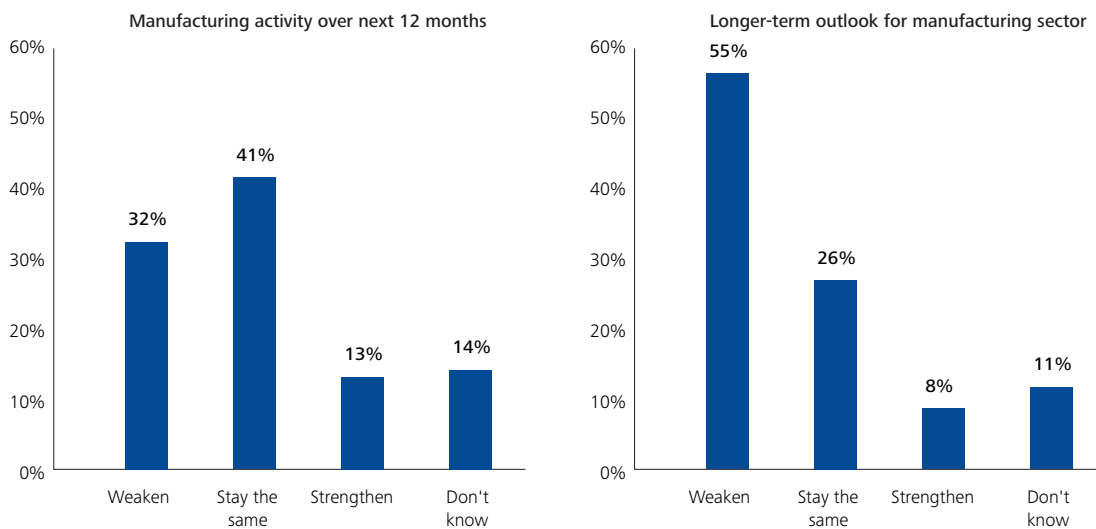


Chart 11. Percent of respondents rating these attributes of U.S. competitiveness as an advantage or disadvantage relative to all other countries:

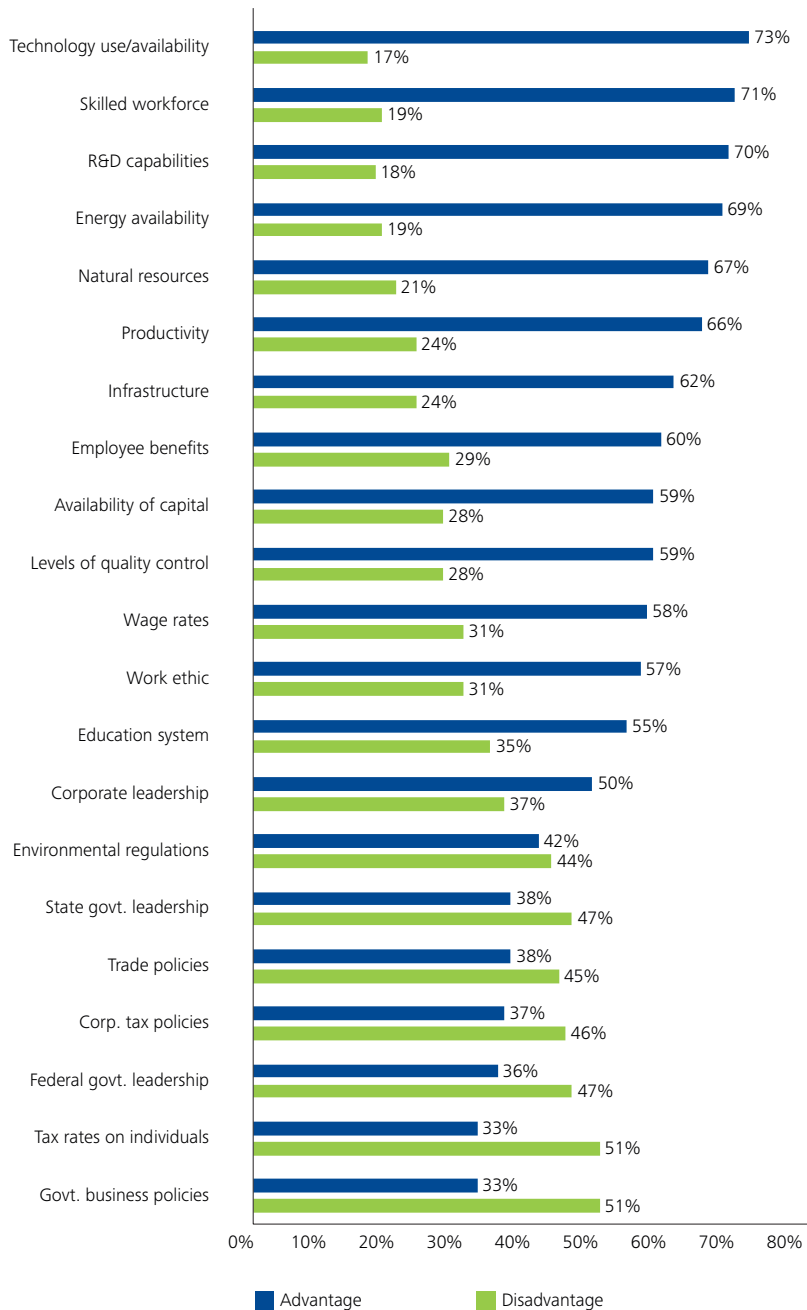
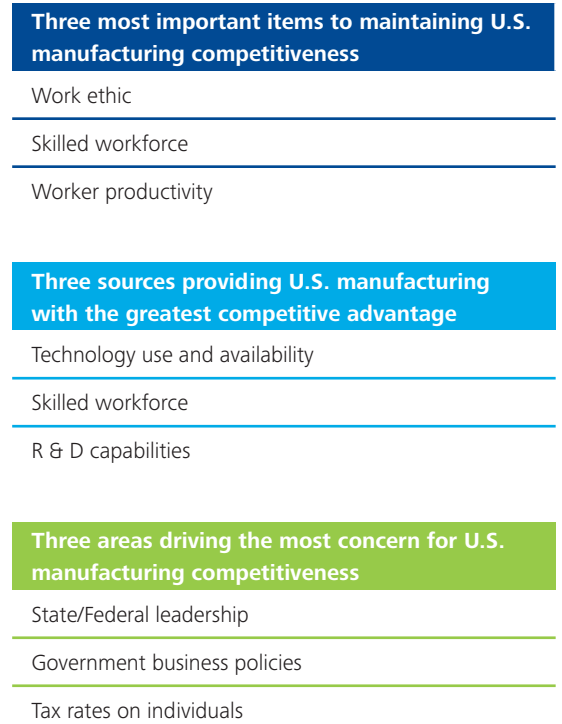


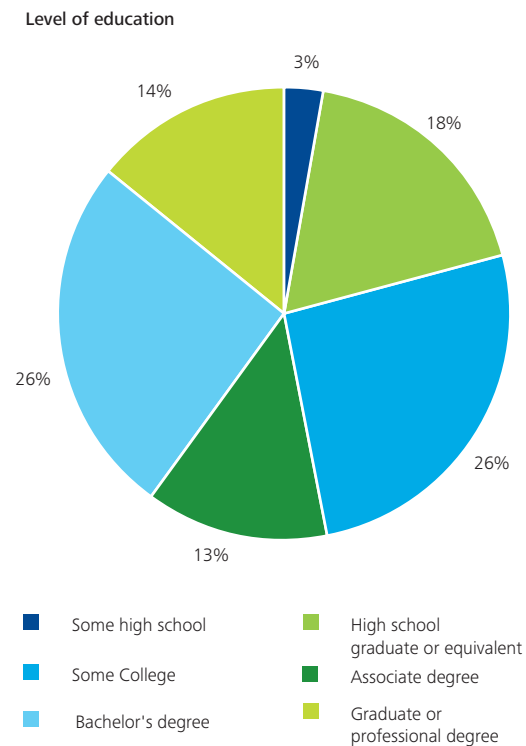
Chart 12. Top three areas of importance, advantage, and concern as ranked by respondents



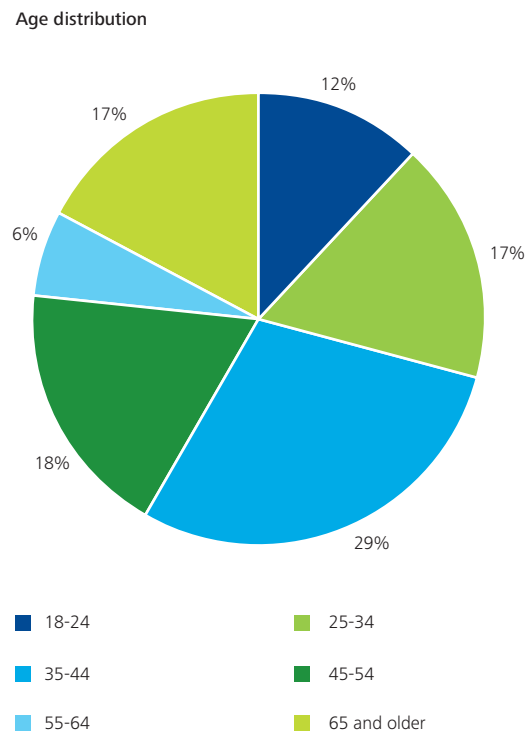
Methodology

This survey was commissioned by Deloitte and The Manufacturing Institute, and was conducted online by an independent research company in June of 2010. The survey polled a nationally representative sample of 1055 Americans across fifty states and has a margin of error for the entire sample of \pm three percentage points.

Chart 13. Profile of respondents



Total number of respondents = 1,055



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About The Manufacturing Institute

The Manufacturing Institute is a non-partisan 501(c) (3) affiliate of the National Association of Manufacturers focused on delivering leading-edge information and services to the nation's manufacturers through its Center for the American Workforce and its National Center for Manufacturing Innovation and Research. Visit <http://institute.nam.org>

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