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2015

Women in manufacturing study  
Exploring the gender gap

“Through STEP Ahead, hundreds of women from all levels of manufacturing have been recognized for excellence and leadership in their careers. By telling the real stories of these women, girls will be inspired to familiarize themselves with the industry through our mentorship program and eventually become the next manufacturing leaders.”

Jennifer McNelly  
President, The Manufacturing Institute



# Women in Manufacturing STEP Ahead

Women make up about 47 percent of the labor force, but only 27 percent of the manufacturing workforce.<sup>1</sup> To help improve upon this, The Manufacturing Institute is promoting the role of women in manufacturing through the STEP (Science, Technology, Engineering, and Production) Ahead initiative, which serves to mentor and recognize women while also leading research efforts tackling this important topic.

As part of the STEP Ahead initiative, the Women in Manufacturing STEP Awards honor women leaders and emerging leaders in the manufacturing industry who have demonstrated excellence and leadership in their careers and represent all levels of the manufacturing industry, from the factory floor to the C-suite. STEP Ahead inspires next generation female leaders to pursue a career in manufacturing and showcases the amazing opportunities the manufacturing industry can offer.

*Recognizing 390* women honorees and **emerging leaders**



Providing *leadership and development* training



250+ manufacturing companies engaged





# Contents

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About the women in manufacturing study	6
The business case for women in manufacturing	8
What motivates women to stay or go?	10
Which industries are most attractive to women in manufacturing?	12
What do women in manufacturing say about organizational diversity?	14
What do women say about their companies' recruiting and retention efforts?	16
The future manufacturing pipeline	18
The path forward	20

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# About the women in manufacturing study

*The women in manufacturing study* was commissioned by The Manufacturing Institute, APICS, and Deloitte to understand why manufacturing isn't attracting, retaining, and advancing its fair share of talented women. It is based on the survey responses of over **600 women professionals** predominately across the manufacturing industry, gaining their perspectives on how companies can effectively recruit, retain and advance talented women.



## These women are experienced

Nearly 90 percent of respondents have 10+ years experience and 47 percent *have 25+ years experience*



## They hold a variety of senior positions

65 percent are in managerial or higher roles, including 12 percent in C-level and 15 percent in director-level roles  
50 percent work for companies with annual revenues over \$1B



## They are well educated

Three-quarters of respondents have bachelor's or master's degrees  
More than 2/3 studied general business, engineering, or operations



## They are driven

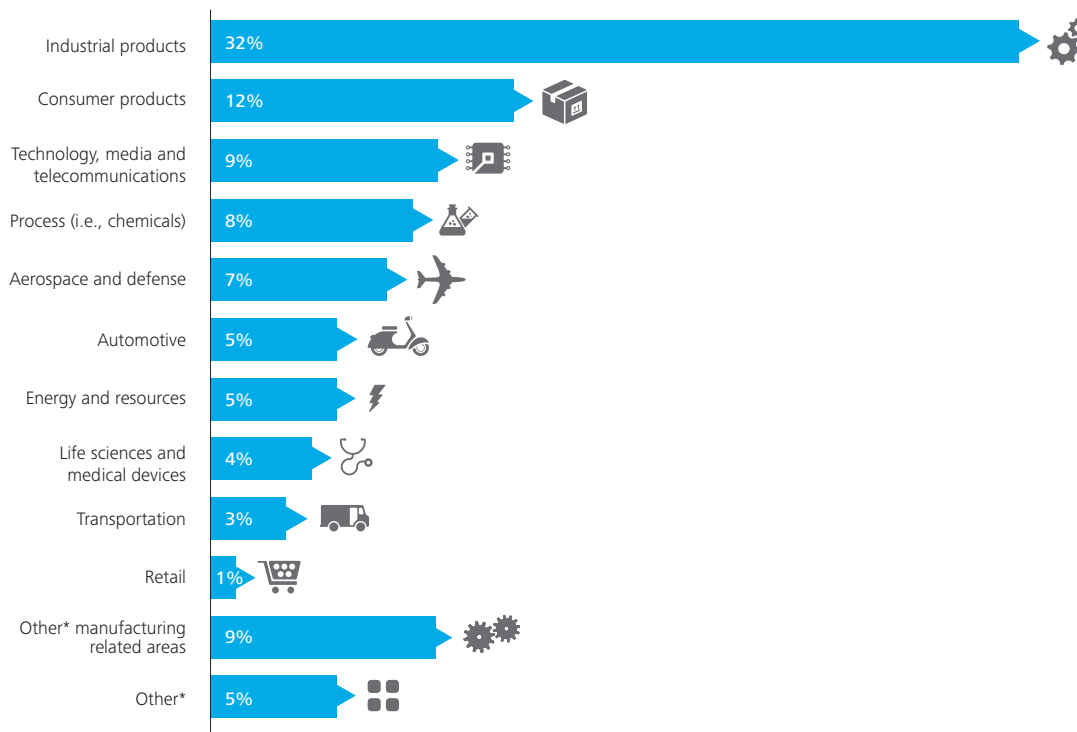
The majority of women aspire to reach senior management or C-suite, and 82 percent of those respondents say they see a career path to get there

## Respondents represent a variety of industries and large organizations

Nearly 58 percent of respondents are working in companies with 1,000 or more employees.

Women respondents are from varied sets of industries with 1/3 coming from industrial products.

### Percentage of respondents



\*"Other" primary industries include metals and mining, civil explosives, paper and corrugated packaging, investment casting, construction materials, agriculture, animal health, office furniture, manufacturing consulting, wholesale distributor, etc.

# The business case for women in manufacturing

From addressing the talent shortage to improved financial performance, the business case for increasing the share of women in the manufacturing workforce is persuasive.

## Women represent a vast talent pool

Women are manufacturing's largest pool of untapped talent. While women represent nearly half (47 percent) of the total U.S. labor force, they comprise less than a third (27 percent) of the manufacturing workforce.<sup>2</sup> Across nearly every manufacturing sector in the U.S., women are underrepresented. The proportion of women in leadership roles in manufacturing companies also lags behind other U.S. industries,<sup>3</sup> yet the pool of experienced professionals is significant. Across the total U.S. labor force, women earn more than half of the associate's, bachelor's, and master's degrees in the U.S.<sup>4</sup> Once in the workforce, they are advancing in their careers, holding more than half of all U.S. managerial and professional positions.<sup>5</sup>

## Closing the skills gap includes closing the gender gap

Manufacturing faces an estimated 2 million worker shortfall over the next decade, and manufacturing executives responding to a recent skills gap study report six out of 10 positions are currently unfilled due to the skills gap.<sup>6</sup> With women representing less than a third of the manufacturing workforce, it's clear manufacturers are missing out on a critical talent pool, which could aid remarkably in closing the skills gap.







### Diversity in organizations contributes to competitiveness and innovation

CEOs and manufacturing executives around the world identify talent-driven innovation as the number one determinant of competitiveness,<sup>7</sup> and research shows leadership diversity can be a contributor to innovation.<sup>8</sup> With that in mind, recruiting and retaining women in manufacturing is just smart business and can contribute significantly to a company's competitiveness.

### Diverse organizations are more profitable

Research indicates organizations with diverse leadership are more profitable. A study by Catalyst, a leading nonprofit organization dedicated to expanding opportunities for women and business, found that *Fortune 500 companies with high percentages of women officers had a 35 percent higher return on equity and a 34 percent higher total return than companies with fewer women executives.*<sup>9</sup>

# What motivates women to stay or go?

The manufacturing advantage – *more than 2/3 of women* indicate they would stay in manufacturing if they were to start their career today.

## What is most important to them?



Opportunities for challenging and interesting assignments



Attractive pay



Work-life balance

**70%** I would remain in my current industry

**30%** I would move to a different industry

## What causes them to consider leaving?



Poor working relationships



Lack of promotion opportunities



Low income / Pay

## *What do they believe are the most impactful talent initiatives?*

When asked to rank the most impactful programs their organization offers that help in attracting and retaining women, flexible work practices, formal and informal mentorship programs, and improving the visibility of key leaders who serve as role models topped the list.

**1** Flexible work practices

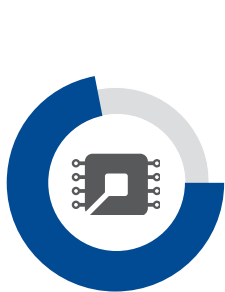
**2** Formal and informal mentorship and sponsorship programs

**3** Identifying and increasing the visibility of key leaders who serve as role models for employees

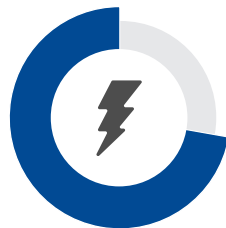
# Which industries are most attractive to women in manufacturing?

For women who indicated they would move to a new industry if they were to start their career today, respondents ranked the following

*among the highest and lowest choices*



72% Technology, media and telecommunications



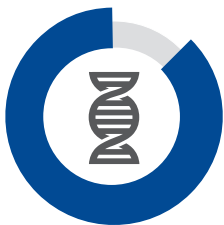
69% Energy



28% Industrial products



26% Automotive



82%  
Life sciences

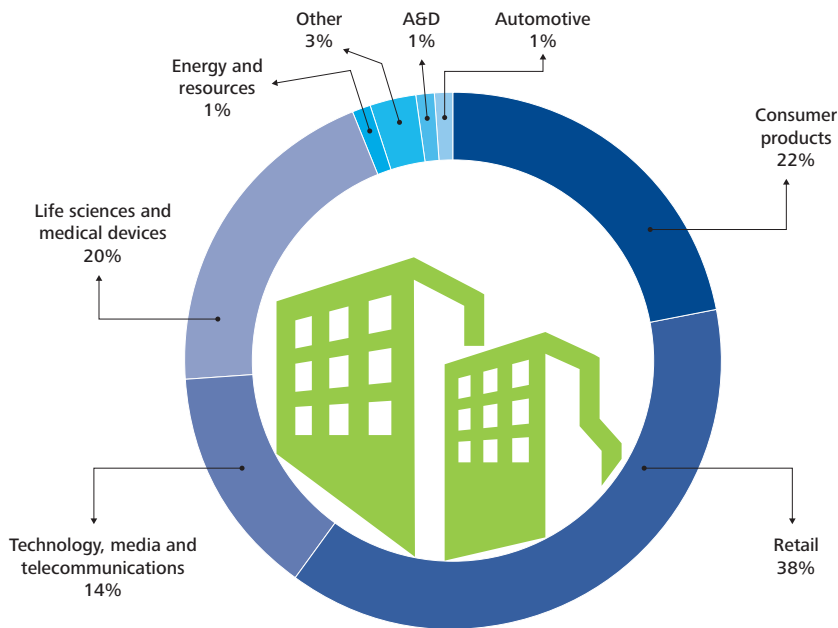


19% Process  
(i.e., Chemicals)



## Respondents say other industries are better at attracting women

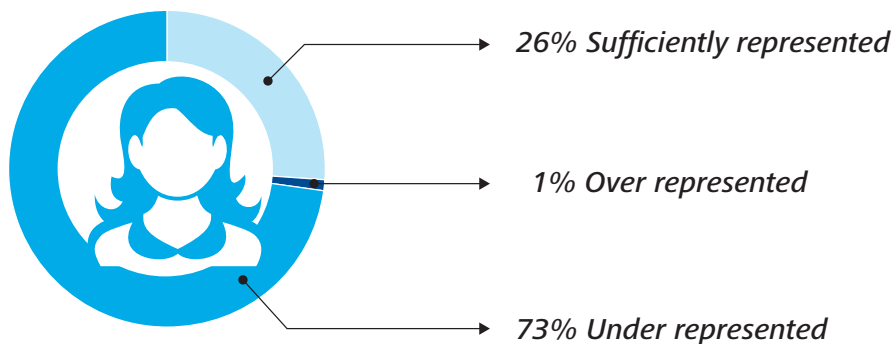
When asked which industries do the best job of attracting and retaining women, retail; consumer products; life sciences and medical devices; and technology, media and telecommunications topped the list.



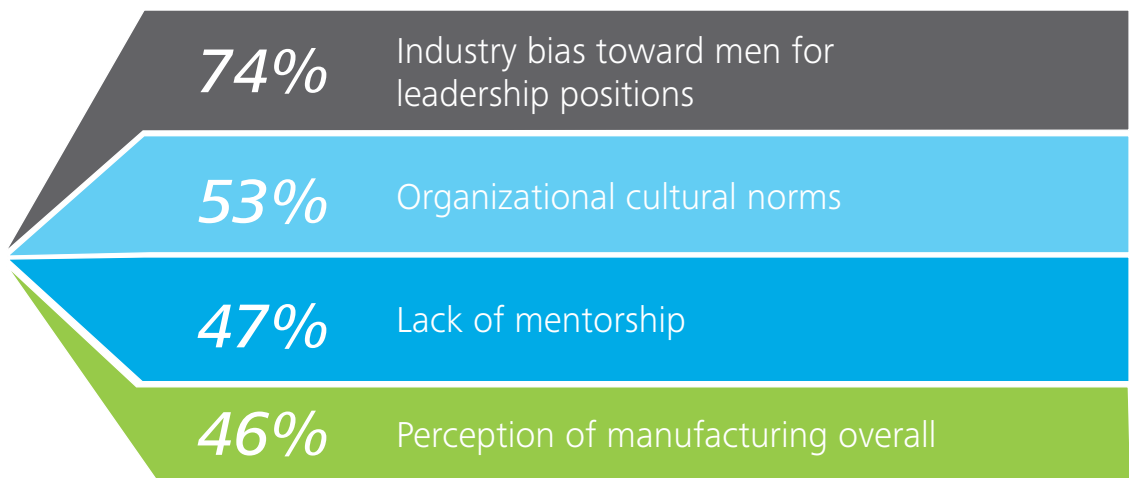
**Notably, although 42 percent** of respondents represent women in industrial products, process, and transportation industries, those industries did not make the list of those best at attracting and retaining women.

# What do women in manufacturing say about organizational diversity?

*3/4 of respondents believe women are underrepresented within their organization's leadership team*

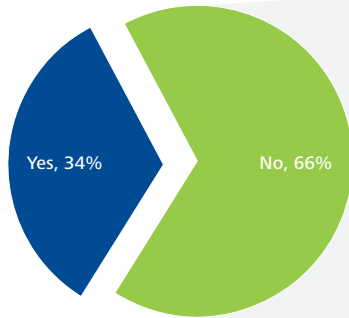


Compared to other sectors, respondents cite the following factors as contributors to underrepresentation of women in manufacturing

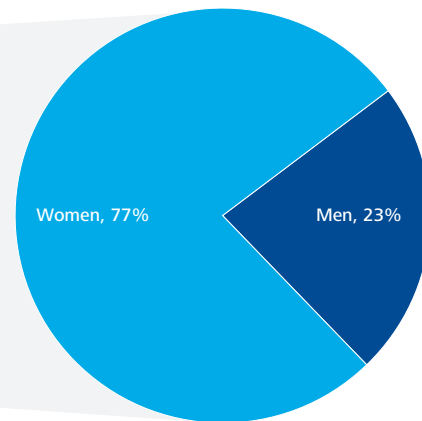


## Women say the standards of performance are not equal

*2/3 of respondents indicate standards of performance are not the same for men and women*



*For those who say the standards are not the same, more than 3/4 say the standards are higher for women*

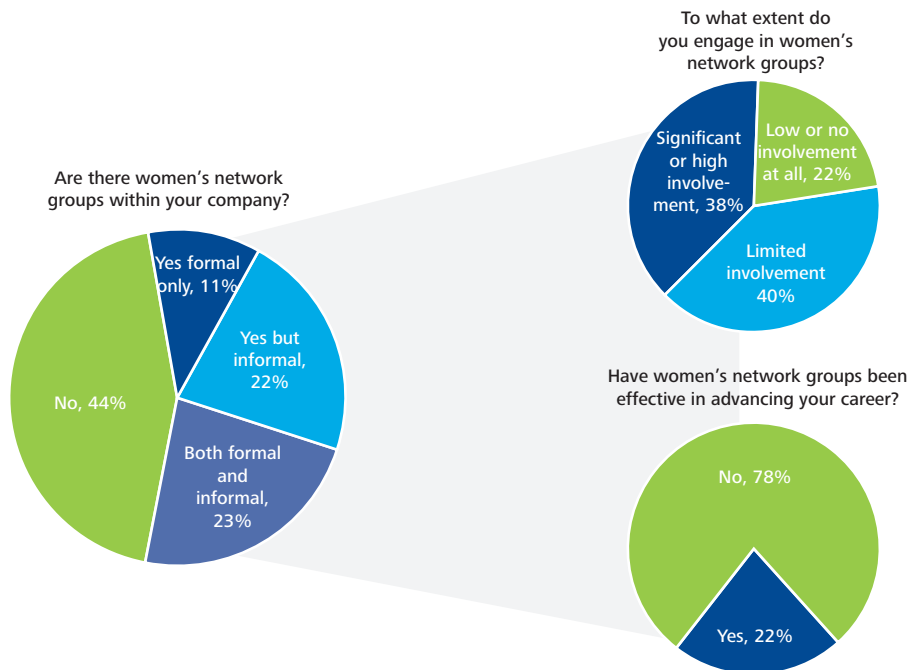


# What do women say about their companies' recruiting and retention efforts?

*2/3 indicate their companies* do not have active recruitment programs to attract potential female employees, and only 1/3 of women believe their company is good at recruiting, retaining and developing women.

## Women's networking groups are not seen as effective at advancing careers

The majority of respondents indicate there are networking groups at their organizations, yet 78 percent find them to be ineffective at advancing their careers.



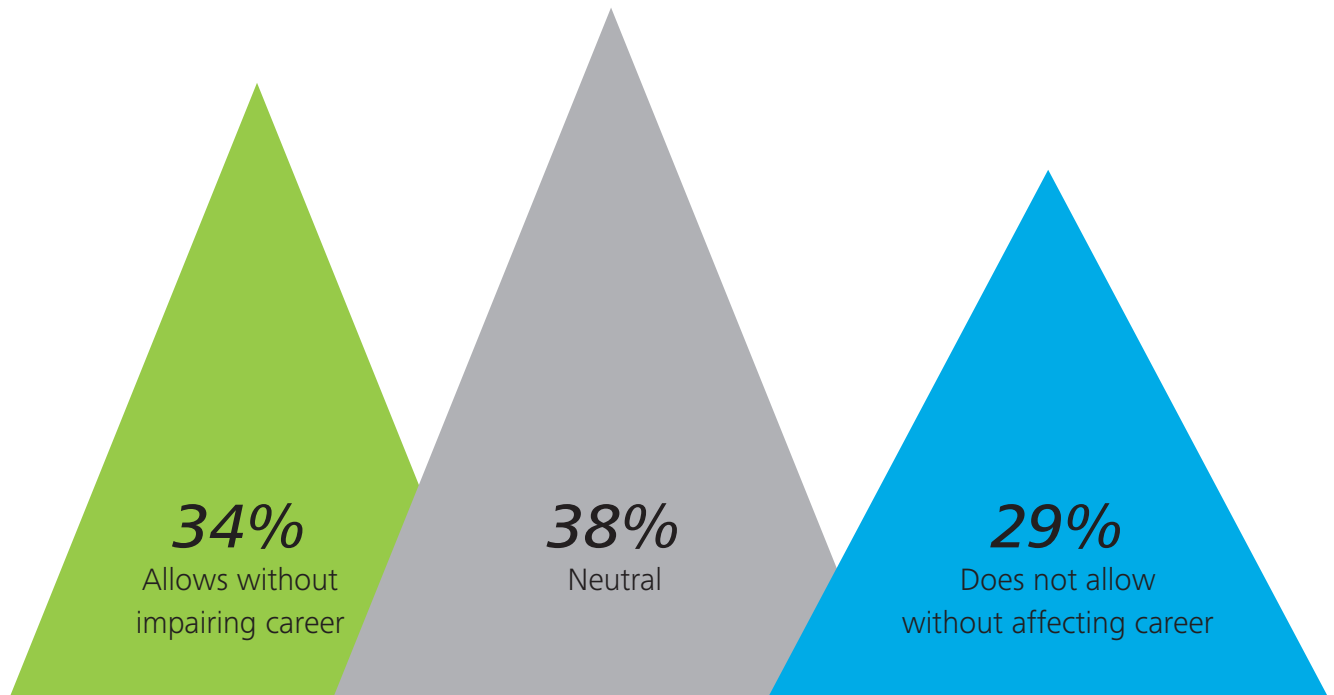


### They believe there is a pay gap

*71% say their experience causes them to believe there is a pay gap between men and women, and 100% of those who believe there is a gap, believe men's pay is higher*

### Flexibility is lagging

When asked how accepting of family commitments their industry is, only 1 in 3 believe their industry allows them to meet family commitments without impairing their career.

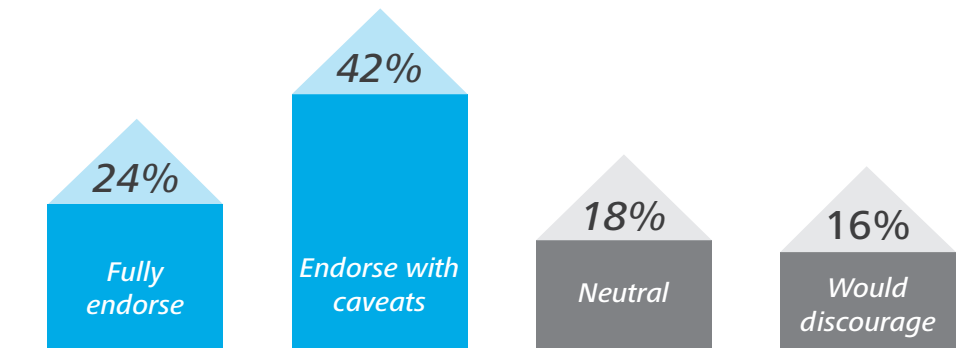


# The future manufacturing pipeline

## Manufacturing's hopeful future

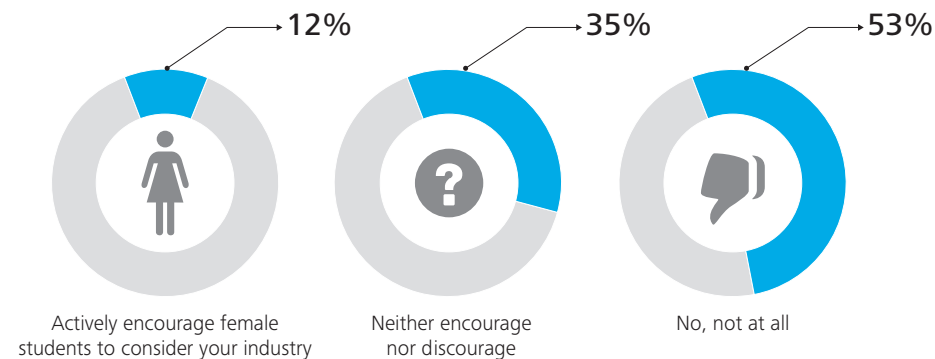
When asked if they would encourage a daughter or female family member to pursue a career in manufacturing, 24 percent would fully endorse and 42 percent would encourage with caveats.

### *Percentage of respondents who would encourage a female to pursue a career in manufacturing*



## Building America's manufacturing workforce starts early

Only 12 percent of respondents believe the K-12 educational system actively encourages female students to pursue careers in their industry, and 53 percent believe it does not at all encourage females to pursue careers in manufacturing.



### Overcoming public perception issues may help

The view that the K-12 school system does not encourage students overall to pursue careers in manufacturing is echoed in The Manufacturing Institute and Deloitte 2015 Public Perception of Manufacturing study.<sup>10</sup> Only 30 percent of respondents indicated their local school system encourages students to pursue manufacturing careers, and only 40 percent of respondents believe today's students are qualified for a job in today's modern manufacturing environment.

### Industry familiarity increases positive perception

The Public Perception of Manufacturing study also found that those with a higher level of manufacturing industry familiarity are more likely to encourage a child to pursue a career in manufacturing.<sup>11</sup> That sentiment is reinforced by the respondents of the women in manufacturing survey with two-thirds indicating they would either fully endorse, or endorse with caveats, a female to pursue a career in manufacturing.



Those familiar with manufacturing are **2X as likely** to **encourage a child to pursue manufacturing**



Those familiar with manufacturing **ranked it 3rd as career choice** out of 7 key industries compared to others ranking it 5th overall

# The path forward



51 percent of respondents indicate they have seen positive change in their industry's attitude toward female professional employees, and definitive action can continue to move the needle.

## Start at the top

A cultural change begins in the C-suite. For diversity and inclusion (D&I) initiatives and programs to gain traction throughout an organization, senior leaders must be aligned on D&I as a business priority and must visibly lead by example.

## Address gender bias head-on

There are positive benefits of gender diverse leadership teams and organizations. Women in the study cite diverse perspectives in decision making (89 percent), balanced organizational management (77 percent) and, improved financial performance (46 percent) as the top positive benefits.

## Create a more flexible work environment

Flexible work practice is the top-ranked impactful program by women in the study. Work-life balance, or the perceived lack thereof in manufacturing, may be another factor deterring women from the industry. It is essential for manufacturing companies to focus on longer-term issues of workforce capability, as well as the shorter-term imperatives of staying in business.

## Foster sponsorship

Women indicated "formal and informal mentorship and sponsorship" among the top three impactful programs a company can have to pave the way for attracting and retaining women. A sponsor advocates for an individual and undertakes responsibility for that person's development and professional progression. In addition, a sponsor extends beyond mentoring and coaching to being a vocal advocate, thereby enhancing their sponsoree's presence in the organization.

### Develop America's manufacturing workforce early

Recruitment into the manufacturing industry should begin early, which is underscored by only 12 percent of respondents believing the school system actively encourages female students to pursue careers in their industry and 53 percent believing they do not at all encourage females to pursue careers in manufacturing.

### Promote personal development

With women ranking opportunities for challenging and interesting assignments as a top motivator for staying in the manufacturing industry—along with identifying and increasing the visibility of key leaders who serve as role models for employees as a top three impactful retention strategy—it stands to reason investment in personal development can continue to build retention and advancement of women.



## End Notes

<sup>1</sup> U.S. Bureau of Labor Statistics, 2014.

<sup>2</sup> *ibid.*

<sup>3</sup> Catalyst. Pyramid: Women in S&P 500 Companies. New York: Catalyst, January 13, 2015; Catalyst. Pyramid: Women in S&P 500. Manufacturing – Durable Goods. New York: Catalyst, January 13, 2015.

<sup>4</sup> National Center for Education Statistics. [http://nces.ed.gov/programs/projections/projections2014/TableDisplay.asp?id=tab\\_10.asp](http://nces.ed.gov/programs/projections/projections2014/TableDisplay.asp?id=tab_10.asp).

<sup>5</sup> U.S. Bureau of Labor Statistics, 2014.

<sup>6</sup> Deloitte Development LLC and The Manufacturing Institute. The skills gap in U.S. manufacturing: 2015 and beyond.

<sup>7</sup> Deloitte LLP and U.S. Council on Competitiveness, 2013 Global Manufacturing Competitiveness Index .

<sup>8</sup> Toyah Miller and María del Carmen Triana, “Demographic Diversity in the Boardroom: Mediators of the Board Diversity–Firm Performance Relationship,” *Journal of Management Studies*, vol. 46, no. 5 (July 2009): p. 755-786.

<sup>9</sup> Catalyst. The Bottom Line: Connecting Corporate Performance and Gender Diversity, 2004.

<sup>10</sup> The Manufacturing Institute and Deloitte, *Overwhelming Support: U.S. public opinions on the manufacturing industry*, 2015.

<sup>11</sup> *ibid.*

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The Manufacturing Institute is the 501(c)(3) affiliate of the National Association of Manufacturers. As a non-partisan organization, the Institute is committed to delivering leading-edge information and services to the nation's manufacturers. The Institute is the authority on the attraction, qualification and development of world-class manufacturing talent. For more information, please visit [www.themanufacturinginstitute.org](http://www.themanufacturinginstitute.org).

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