



women in  
manufacturing®

Thomas Industrial Survey

# WOMEN IN MANUFACTURING BENCHMARK STUDY

2020

WIM Corporate Member Comprehensive Report





Women in Manufacturing (WiM) is the only national trade association dedicated to providing year-round support to women who have chosen a career in the manufacturing industry.

WiM members benefit from exclusive access to educational programming, networking opportunities, bimonthly webinars, a customized job board, a robust searchable directory, and much more.

<http://womeninmanufacturing.org>



## Key Insights

Thomas, in collaboration with Women in Manufacturing, conducted a survey about **women in the manufacturing sector**, revealing the following 5 key trends:

1. Only 1 in 3 manufacturing professionals and 1 in 4 manufacturing leaders are women.
2. The Medical/Healthcare industry has the highest female employee presence (54%), whereas Aerospace & Defense has the lowest representation (17%).
3. Female employee representation is strongly and positively correlated with female leadership presence\* suggesting that a gender-balanced environment fosters more diverse leadership, (and vice versa).
4. Women are significantly less likely to report that their contributions are valued in manufacturing businesses and less likely to receive career advancement opportunities (32% of females completely agree their contributions are valued vs. 51% of males).
5. Training and educational opportunities are positively correlated with employee's confidence in the company's future.

**Professionals in the Medical/Healthcare (86%) and Agricultural (84%) industries are the most optimistic about the advancement of women in manufacturing.**

\*Effect Size (Pearson's  $r$ ) = 0.617, P-Value < 0.00001.



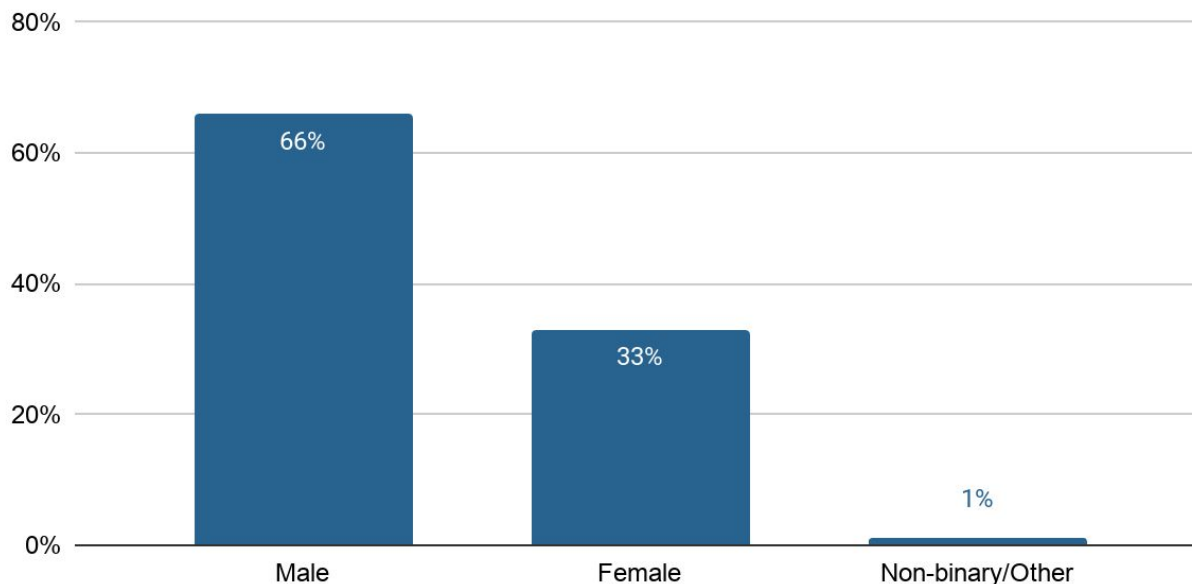
## Key Insights





# An Estimated 33% of Employees in Manufacturing Are Female

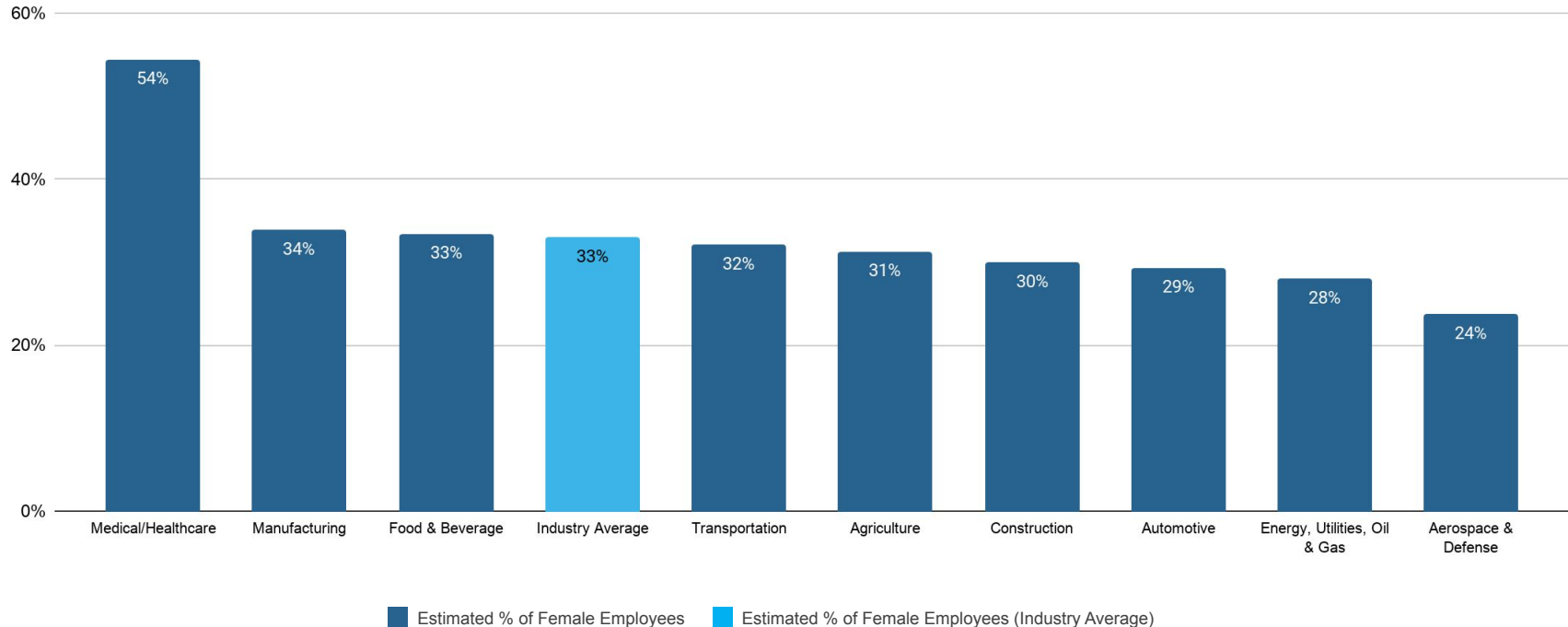
Please estimate the percentage of employees in your entire company by gender:



<sup>1</sup> n=465; in Female n=322; in Male n=134; in Non-binary or other n=3; in Prefer not to answer n=6.

# The Medical/Healthcare Industry Has the Highest Representation of Female Employees

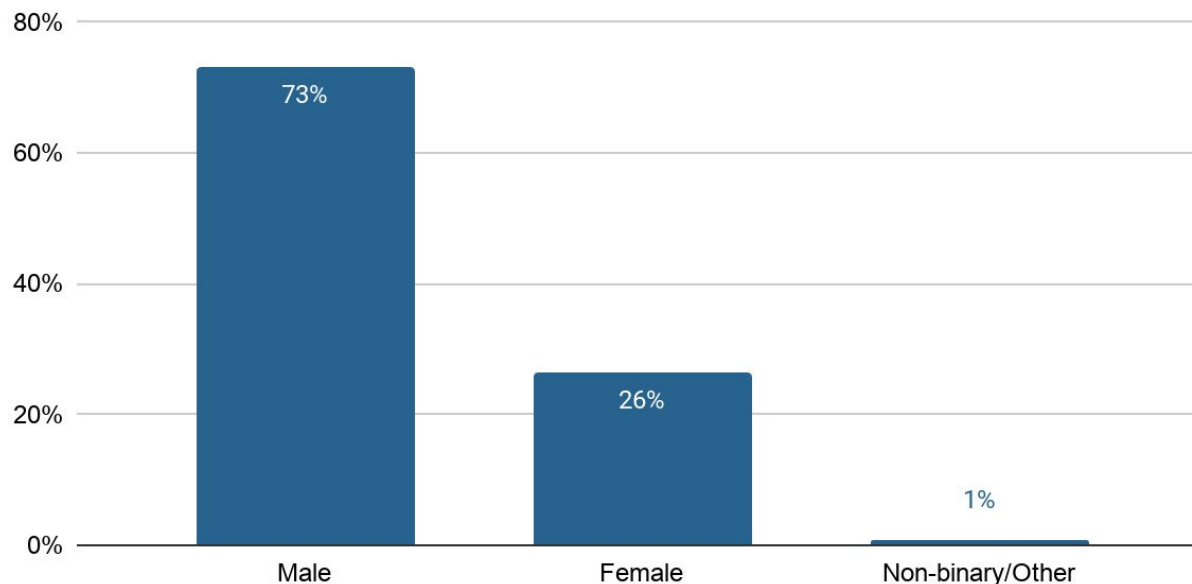
Estimated percentage of female employees by industry:



<sup>1</sup> Total/industry average, n=412; in Medical/Healthcare n=29; in Manufacturing n=176; in Food & Beverage n=20; in Transportation n= 17; in Agriculture n=18; in Construction n= 29; in Automotive n=60; in Energy, Utilities, Oil & Gas n= 31; in Aerospace & Defense n=32.

# An Estimated 26% of Manufacturing Business Leaders Are Female

Please estimate the percentage of employees on your company's leadership team by gender:

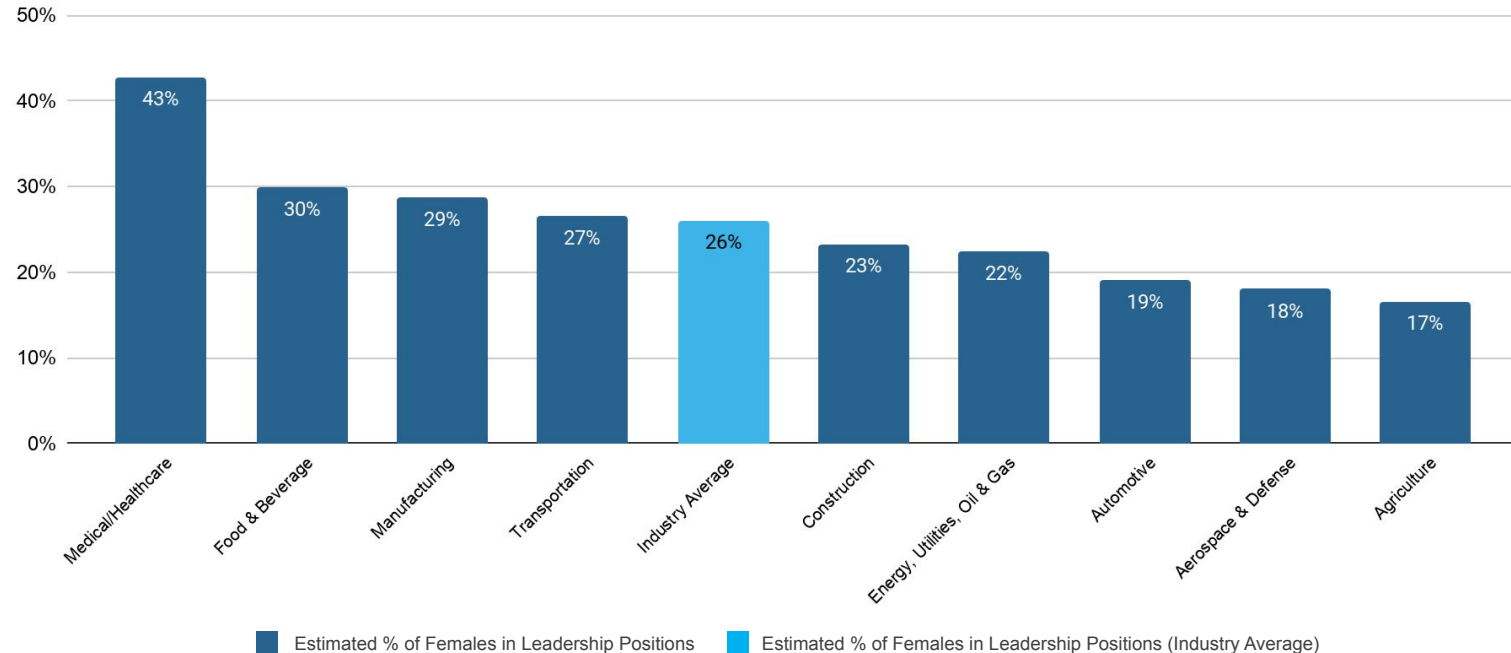


<sup>1</sup> n=465; in Female n=322; in Male n=134; in Non-binary or other n=3; in Prefer not to answer n=6.



# 1 in 4 Manufacturing Leadership Positions Are Held by Women

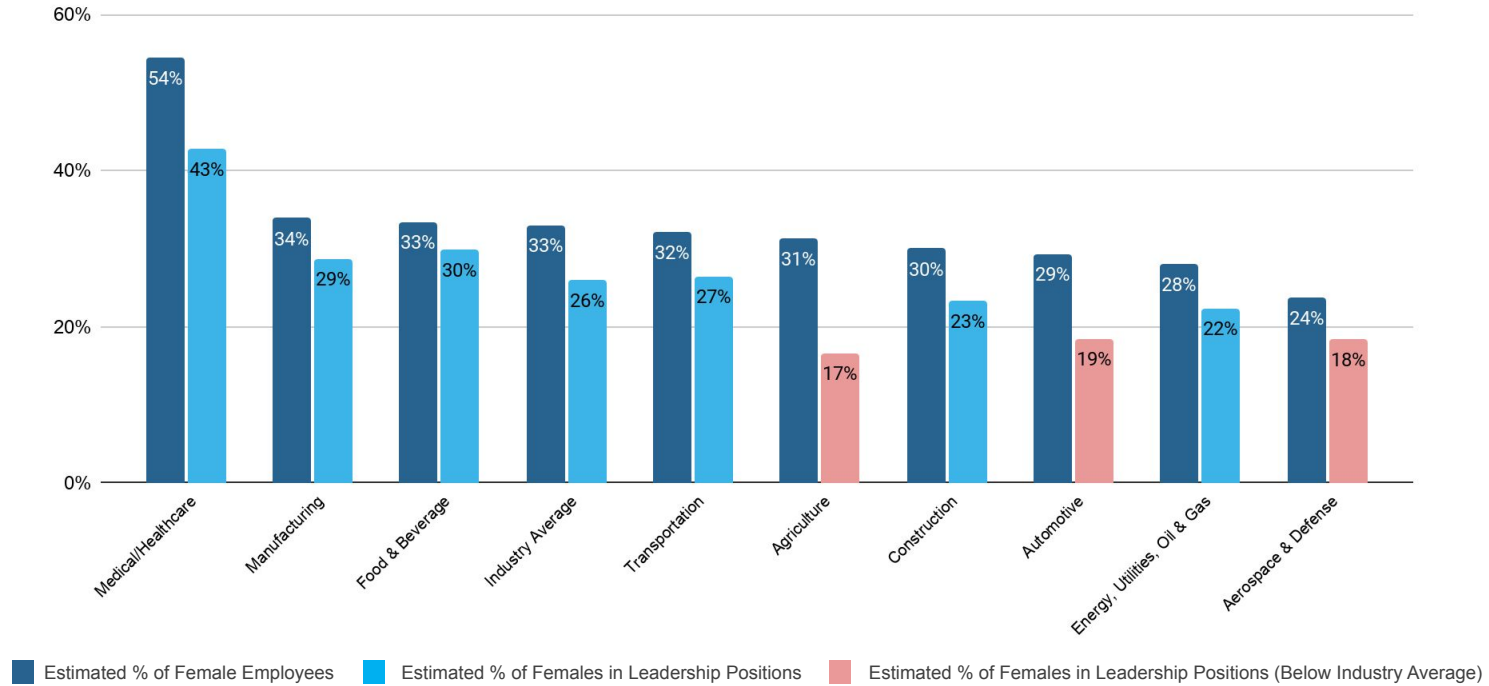
Estimated percentage of female leaders by industry:



<sup>1</sup> Total/industry average n=413; in Medical/Healthcare n=29 ; in Food & Beverage n=20; in Manufacturing n=176; in Transportation n= 17; in Construction n= 30; in Energy, Utilities, Oil & Gas n= 31; in Automotive n=60; in Aerospace & Defense n=32; in Agriculture n=18.

# Female Leadership Progress Is Particularly Lacking in the Agriculture, Automotive, and Aerospace & Defense Sectors

General female employment and leadership representation:



<sup>1</sup> Sample size n=413; In Medical/Healthcare n=29; in Manufacturing n=176; in Food & Beverage n=20; in Transportation n= 17; in Agriculture n=18; in Construction n= 29; in Automotive n=60; in Energy, Utilities, Oil & Gas n= 31; in Aerospace & Defense n=32.

<sup>2</sup> The red bar indicates the sectors with the lowest estimated % of females in leadership positions compared to industry average.

# Pennsylvania, Colorado, and Connecticut Have the Highest Percentage of Women in Leadership Positions

Female general and leadership representation in manufacturing by state:



<sup>1</sup> Sample size n=422; in Pennsylvania n=34; in Colorado n=11; in Connecticut n=12; in Georgia n=15; in Michigan n=40; in Texas n=28; in California n=32; in Indiana n=18; in Minnesota n=11; in New York n=25; in Kentucky n=12; in Washington n=12; in Ohio n=48; in North Carolina n=25; in New Jersey n=16; in Illinois n=41; in Wisconsin n=27; in Ontario n=15.

<sup>2</sup> Any state with less than 10 respondents was not included due to the limited sample size.

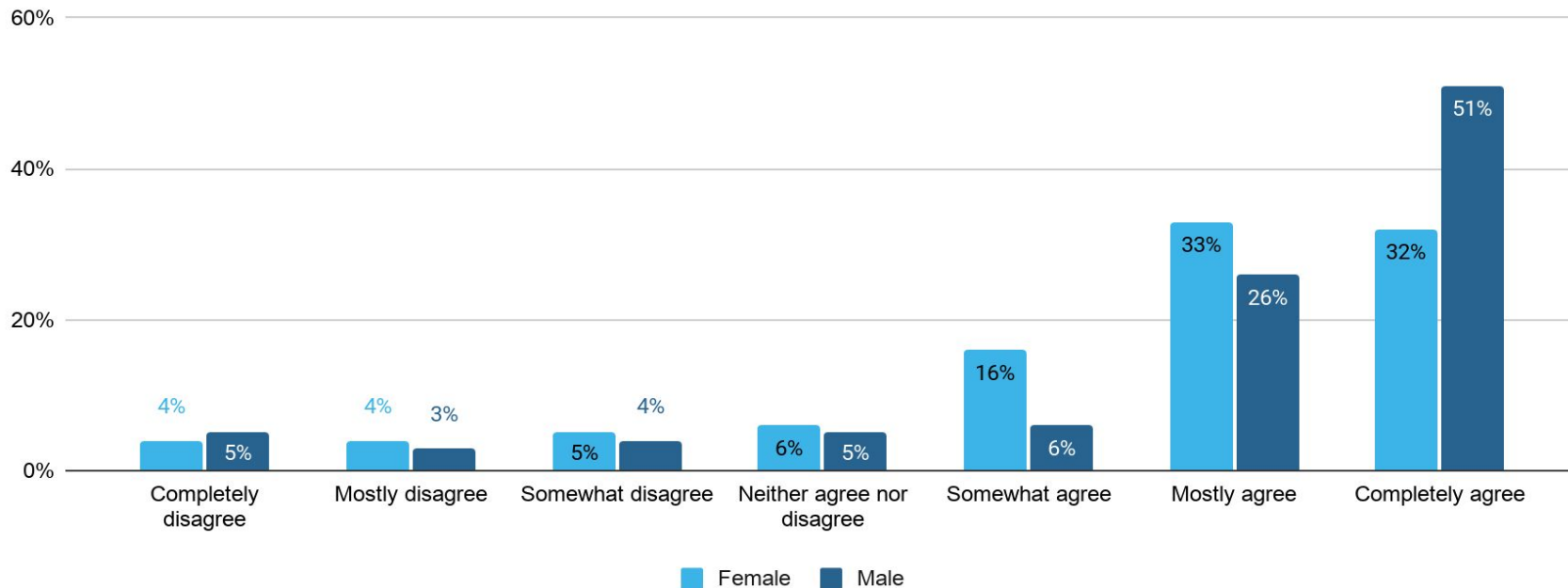


A man and a woman, both wearing safety gear, are looking at a laptop. The man is wearing a yellow hard hat, safety glasses, and a red and yellow high-visibility vest over a blue shirt. The woman is wearing a white hard hat, a white shirt, and a yellow high-visibility vest. They are standing in front of a blue shipping container with white text. The text on the container includes "ECMU 218", "TARE", "NET", and "CU. CAP.". A semi-transparent blue box with white text is overlaid on the left side of the image.

## Attitudes and Behavior

# Women Are Significantly Less Likely to Report That Their Contributions Are Valued in Manufacturing Businesses

I believe my company values my contributions.

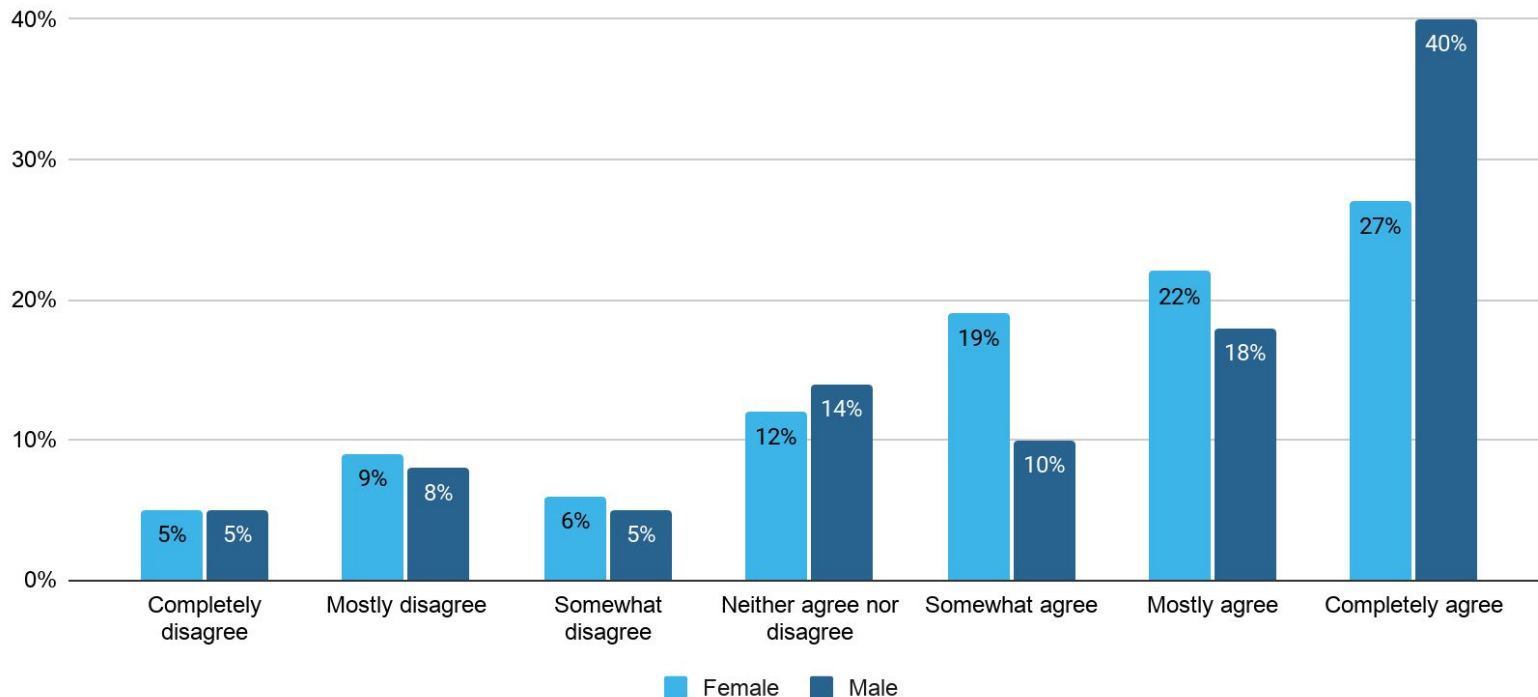


<sup>1</sup> Sample size n=519; in Female n=353; in Male n=156; in Non-binary or other n=4; in Prefer not to answer n=6.

<sup>2</sup> Survey respondents identifying as non-binary or other constituted less than 10 responses and were not included due to sample size.

# Only 27% of Women Feel Strongly About Their Career Advancement Opportunities Compared to 40% of Male Respondents

The company I currently work for provides opportunities for my career advancement.



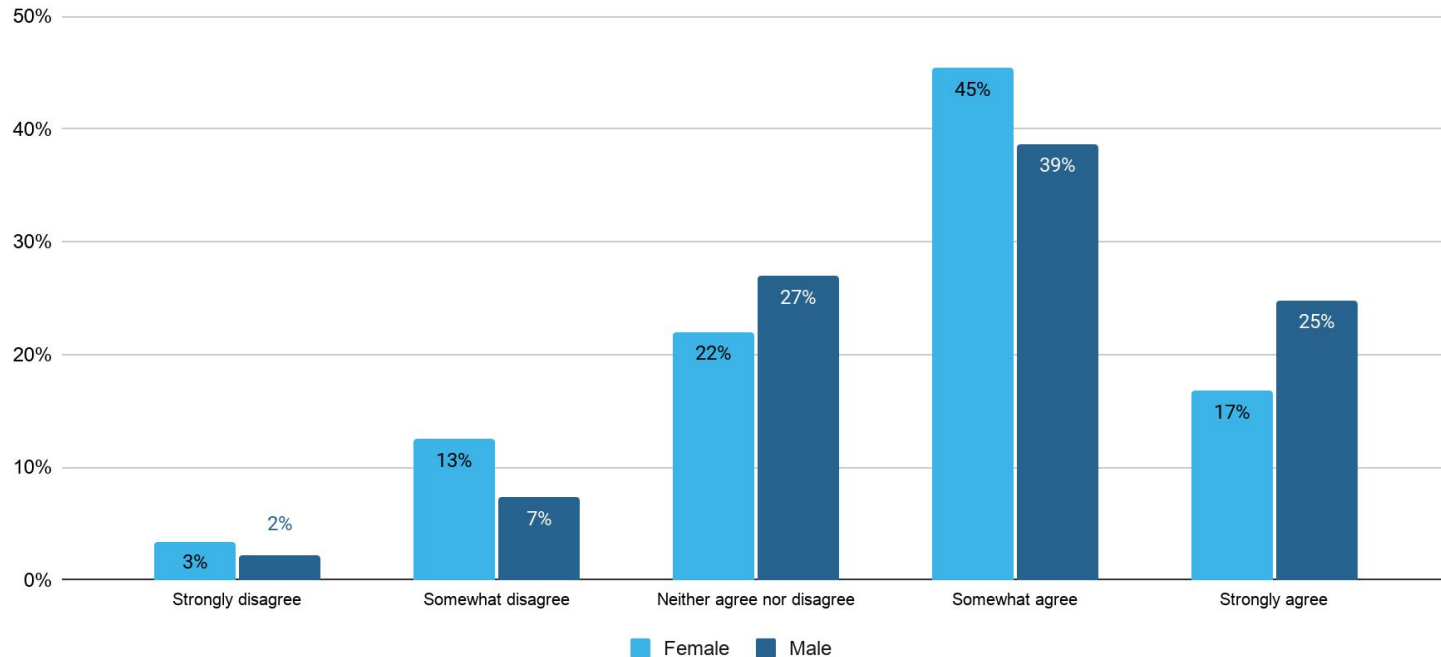
<sup>1</sup> Sample size n=519; in Female n=353; in Male n=156; in Non-binary or other n=4; in Prefer not to answer n=6.

<sup>2</sup> Survey respondents identifying as non-binary or other constituted less than 10 responses and were not included due to sample size.



# The Majority of Respondents Agree Women Have Made Significant Progress in the Manufacturing Industry Over Last 5 Years

Women have made significant progress in the manufacturing industry over the last 5 years.



<sup>1</sup> Sample size n=465; in female, n=322; in male, n=134; in non-binary and other n=9.

\*Survey respondents identifying as non-binary or other constituted less than 10 responses and were not included due to sample size.

# The Best Advice Respondents Would Share with Women in the Manufacturing Sector



- “Do not be afraid to speak up and make yourself heard - so often we are talked over due to lack of assertiveness. It's OK to be assertive, you can be assertive and polite.”
- “Be bold and be clear about what you are striving for in your career. Find a mentor and someone who will champion and advocate for your growth and development. Be a mentor to others - show other women what a career in manufacturing can look like.”
- “Don't accept the way things have always been. Drive change to make things better for yourself and the women coming into the industry behind you.”
- “You have to be comfortable in being the first in many cases.”
- “Don't be afraid to take up space. If you want to be in the manufacturing industry then you belong in the manufacturing industry.”
- “Have a voice, sit at the table, know your data. Focus on metrics and numbers, talk with facts vs. emotion.”
- “Do not be afraid to ask questions to better learn the manufacturing process. Lean on the people who do the physical work - they are the experts and most are proud to share their knowledge. “



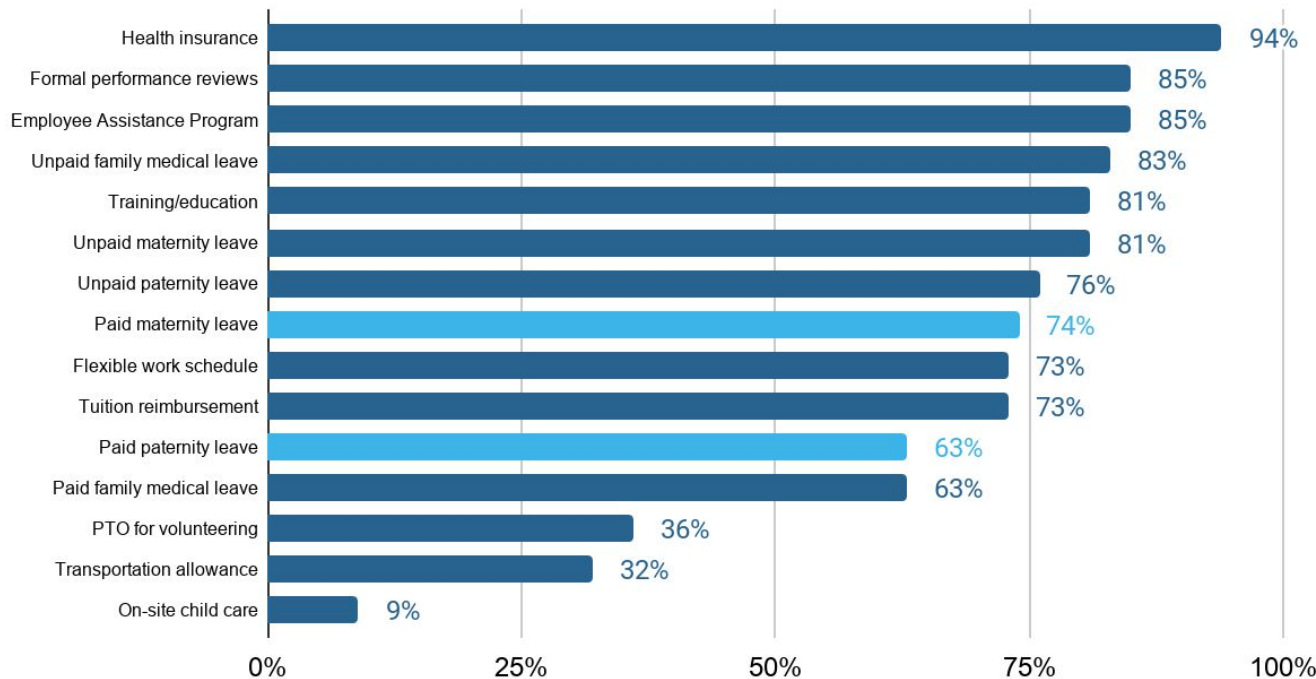


## Company Policies and Female Advancement



# More Than Half of North American Manufacturing Companies Offer Paid Parental Leave

What employee benefits are currently offered to you?

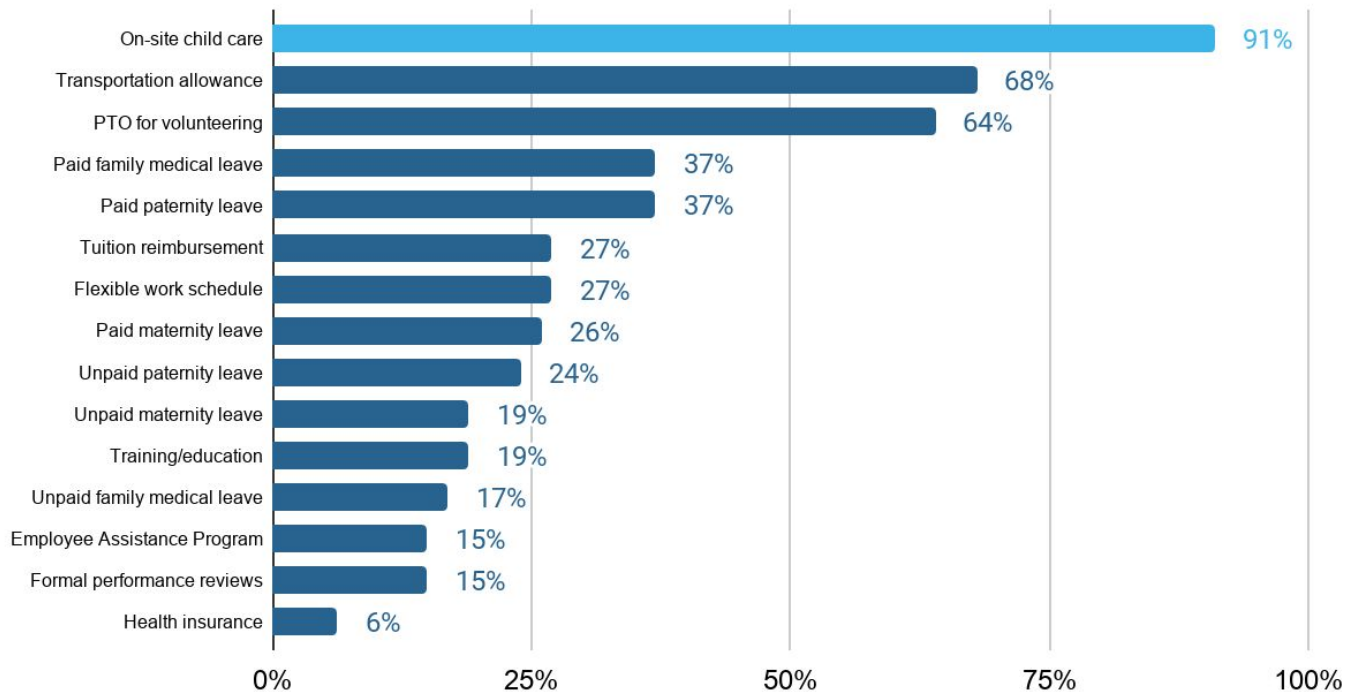


<sup>1</sup> Sample size n=465.

<sup>2</sup> The light blue bars highlight headline data.

# On-Site Child Care Is the Most Desired Benefit in the Manufacturing Sector

## What employee benefits would you like to receive?

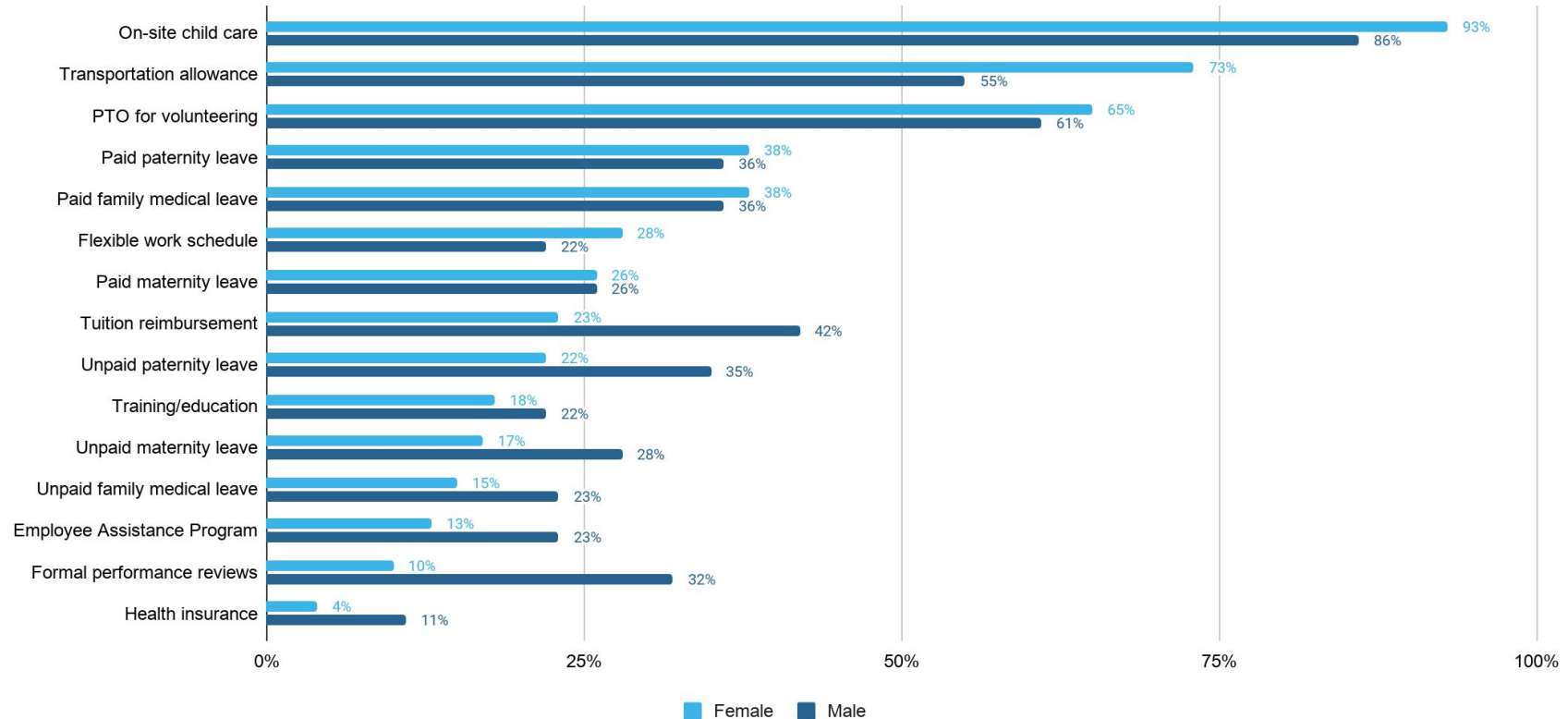


<sup>1</sup> Sample size n=465.

<sup>2</sup> The light blue bar highlights headline data.

# Desired Company Benefits by Gender

What employee benefits would you like to receive?

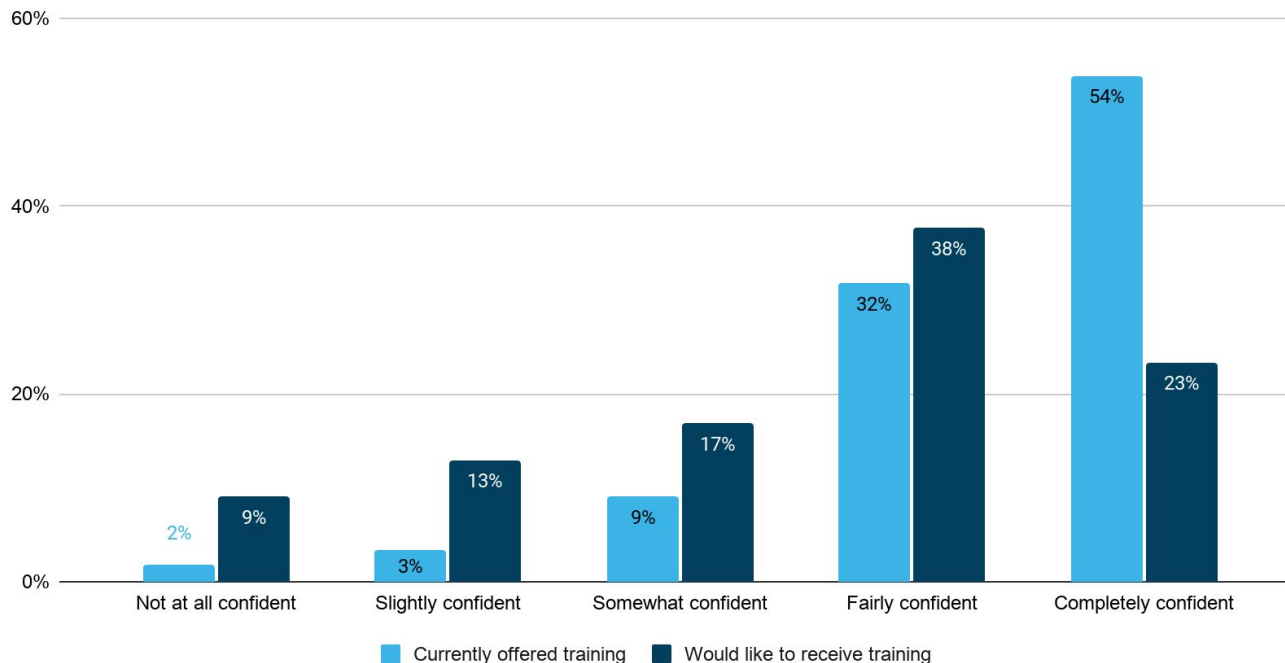


<sup>1</sup> Sample size n=465; in Female n=322; in Male n=134; in non-binary and other n=9.

<sup>2</sup> Survey respondents identifying as non-binary or other constituted less than 10 responses and were not included due to sample size.

# Training and Educational Opportunities Are Positively Correlated With Employee's Confidence in the Company

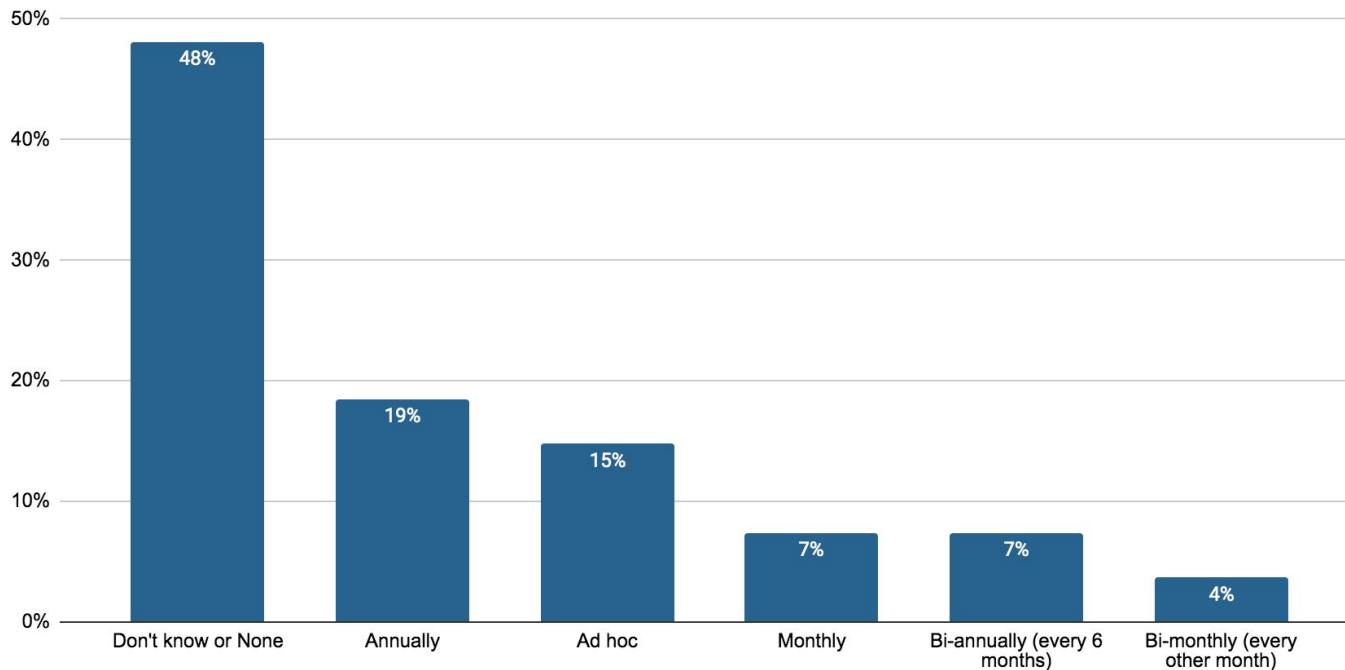
How confident are you in your company's ability to overcome the economic uncertainties in 2020?



<sup>1</sup> Total n=398; in Not at all confident n=13; in Slightly confident n=21; in Somewhat confident n=42; in Fairly confident n=131; in Completely confident n=191.

# 1 in 2 Companies Offer Some Kind of Diversity or Inclusion Programs

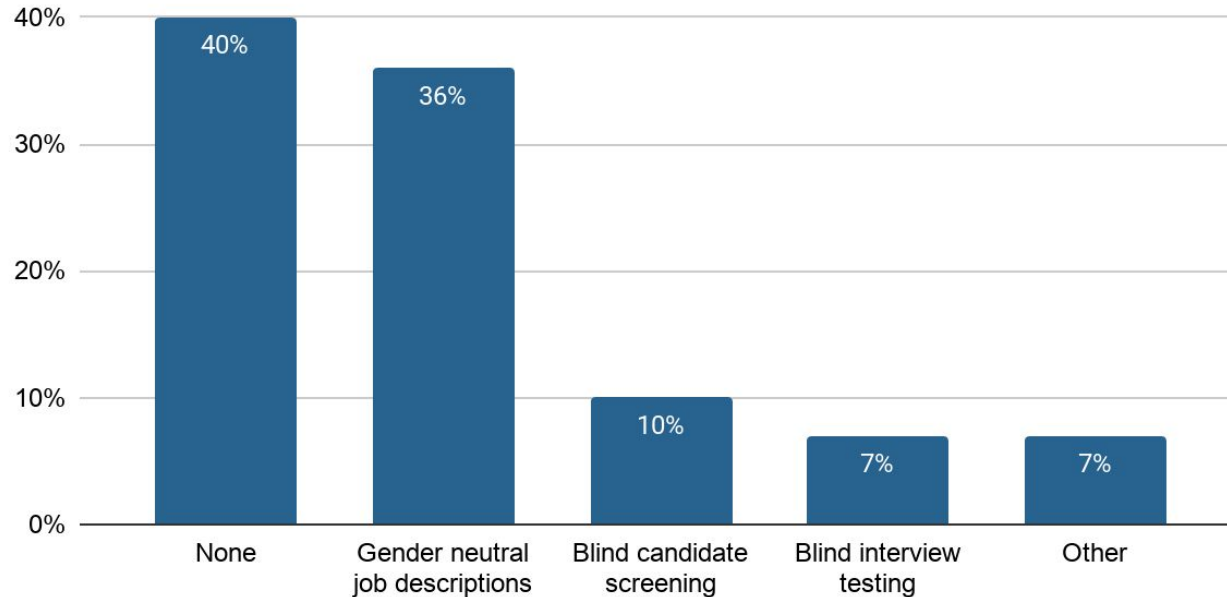
How frequently does your company offer diversity and inclusion programs?



<sup>1</sup> Only respondents self-identified as Human Resource staff were invited to answer this question; n=27.

# Few Gender-Balanced Hiring Practices Are Used in Manufacturing Companies

Does your company currently use any of the following gender-balanced hiring practices?



<sup>1</sup> Only respondents self-identified as Human Resource staff were invited to answer this question; n=30.

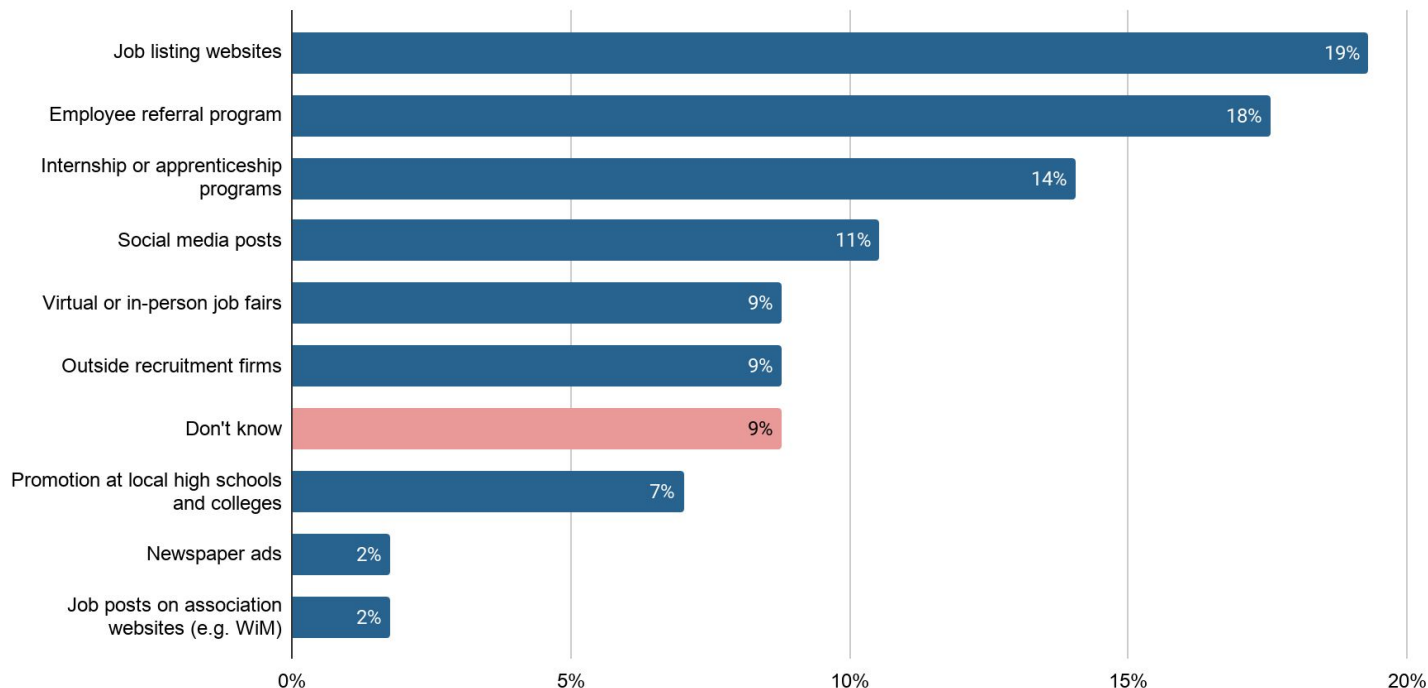
<sup>2</sup> Unbiased phone interviews was included as an option, but was not selected by any respondents and therefore excluded from the analysis.

<sup>3</sup> Other includes unknown.



# Job Websites and Referrals Are Most Effective Methods of Finding Qualified Female Candidates

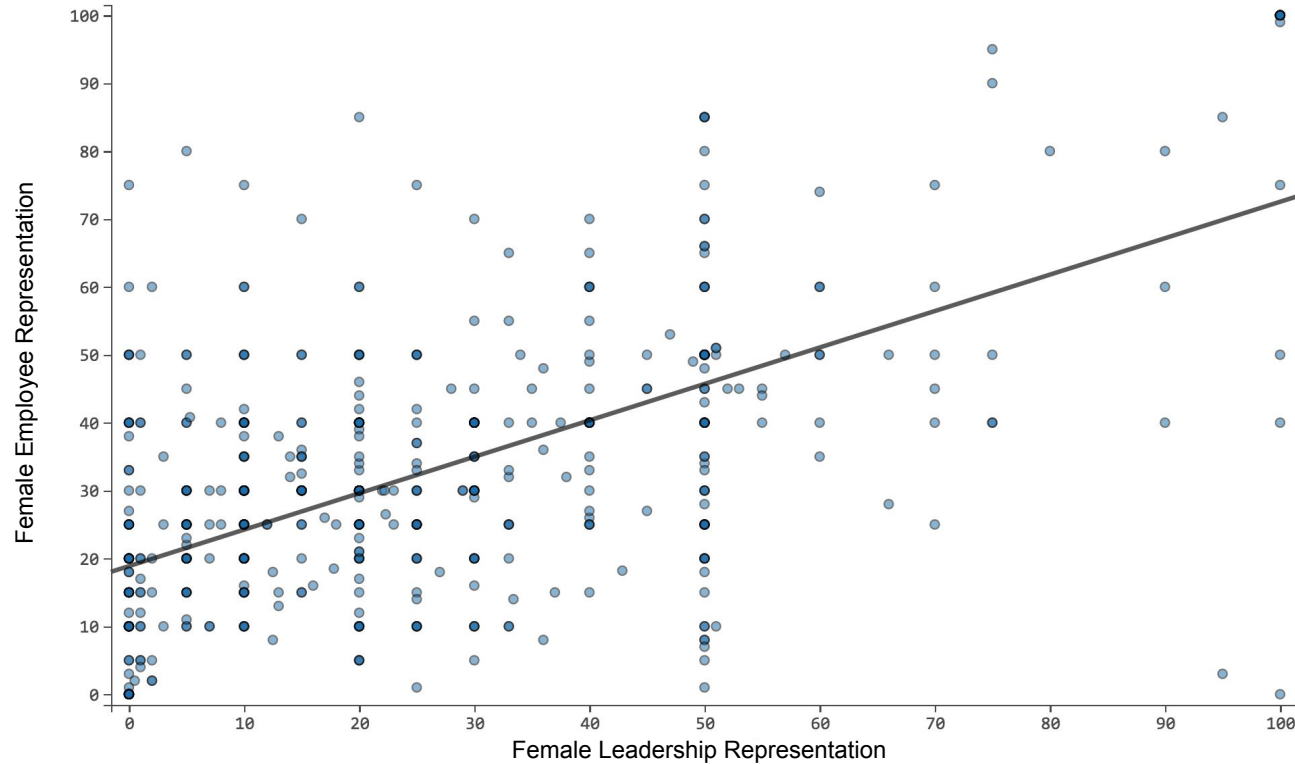
Which employment recruitment method is most effective in finding qualified female candidates?



<sup>1</sup> Only respondents self-identified as Human Resource staff were invited to answer this question; n=58.

<sup>2</sup> The red bar highlights that 9% reported that they do not know the most effective recruitment method for finding qualified female candidates.

# Female Employee Representation Is Strongly and Positively Correlated with Female Leadership Presence



<sup>1</sup> Sample Size n=539. Correlation P-Value < 0.00001, Effect Size (Pearson's  $r$ ) = 0.617, Confidence Interval of Effect Size: 0.562 to 0.667 suggesting female leadership presence is correlated with a more gender-balanced environment.

# Unique Ways Manufacturing Companies Promote Female Advancement



- “We have a summer STEM camp for young women.”
- “Started men as diversity partners program to educate and share about unconscious bias and support/promote female colleagues”
- “We have a women's resource group that was started in 2019 that promotes networking, STEM, and advancement of women in the manufacturing world.”
- “We have an Engineering Ladies Lunch and Learn (E3L) once a month to go over topics, training, [and] skills development for women at the company. This was developed by female engineers taking the initiative and it took awhile for the leadership team to appreciate it.”
- “[We have a ] professional development program for women in manufacturing, designed to support women early in their manufacturing careers to encourage them to stay in manufacturing and/or within the company. The program provides a supportive environment for the women, and also supplies each woman with another female mentor within the company.”
- “Being a WBE our owner believes in best practice training and encourages all female employees to sign up to lead meeting and training and have an active role in mentoring.”

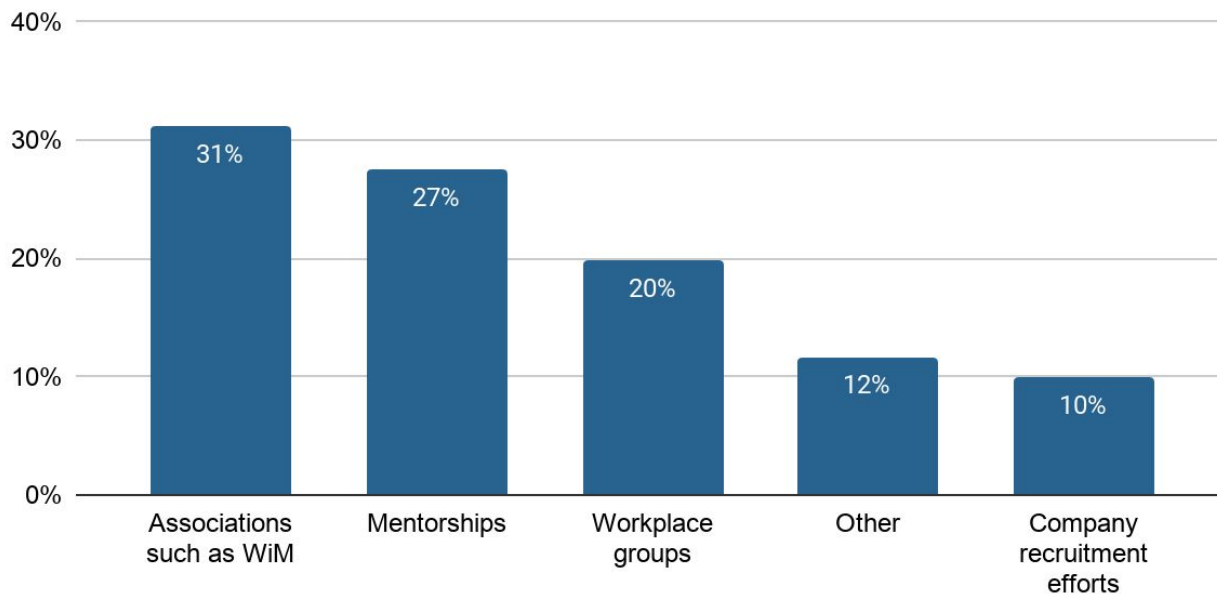


## Mentorship and Training



# Associations and Mentorships Are Most Helpful to Women in Manufacturing

What are the most helpful resources you have come across for women in manufacturing?

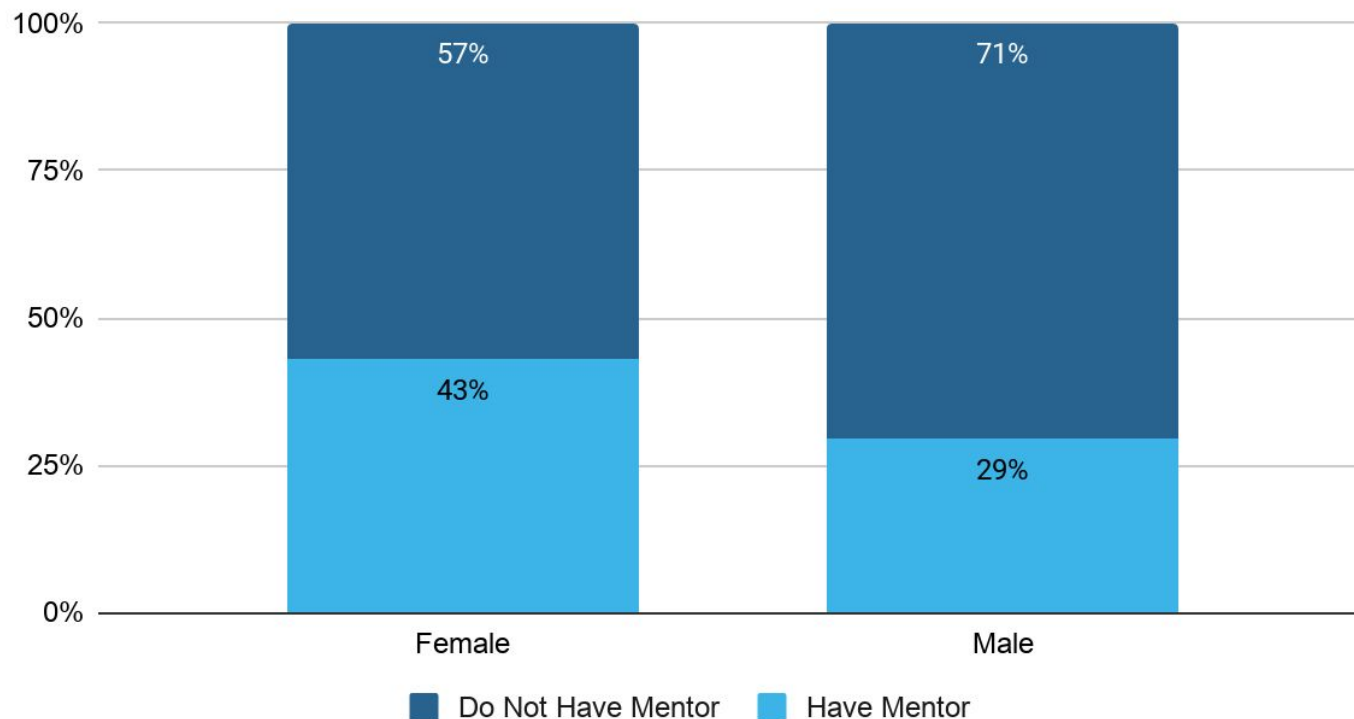


<sup>1</sup> Sample size n=322.

<sup>2</sup> Other includes Thomas, None, Unaware of any, reddit, apprenticeships, and networking.

## 43% of Women Have a Mentor Compared to 29% of Men

Do you have a mentor?



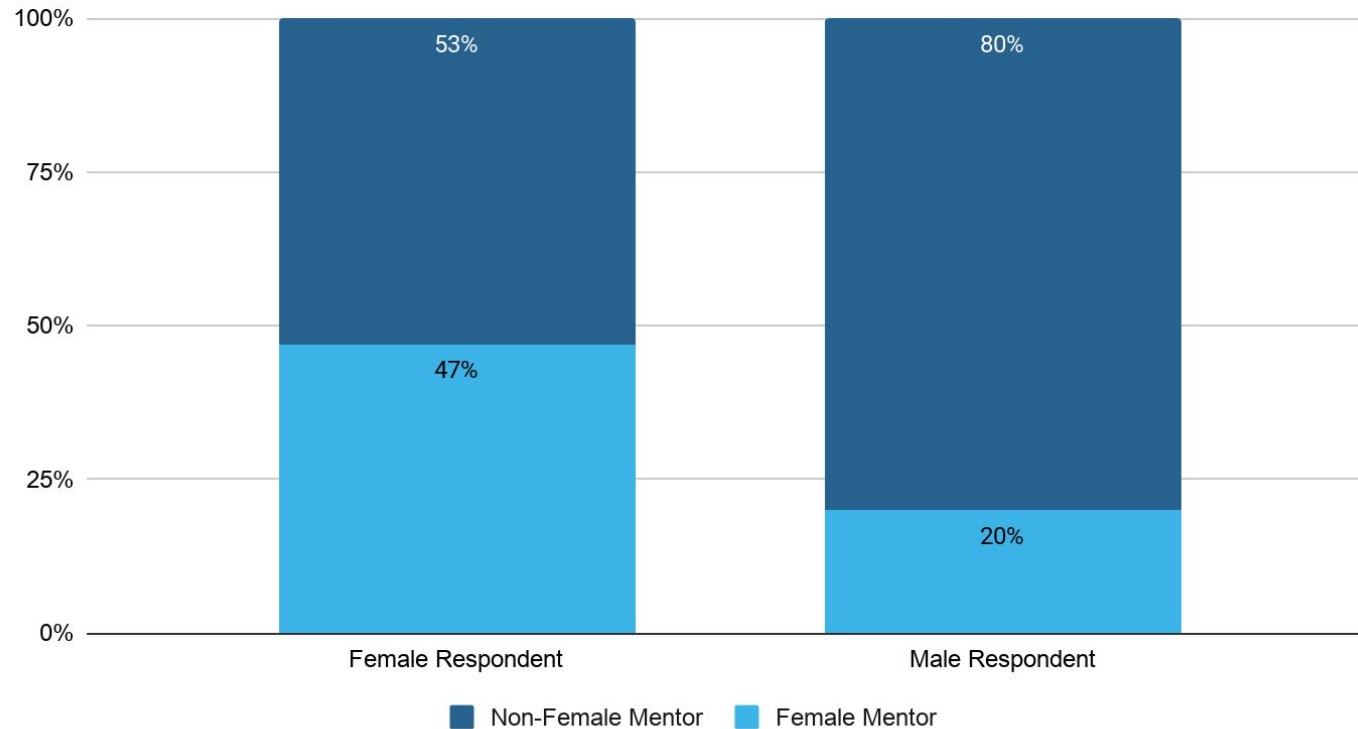
<sup>1</sup> Sample size n=196; in Female n=142; in Male n=51; in non-binary and other n=3.

<sup>2</sup> Survey respondents identifying as non-binary or other constituted less than 10 responses and were not included due to sample size.



# The Majority of Mentors Are Male

Is your mentor female?

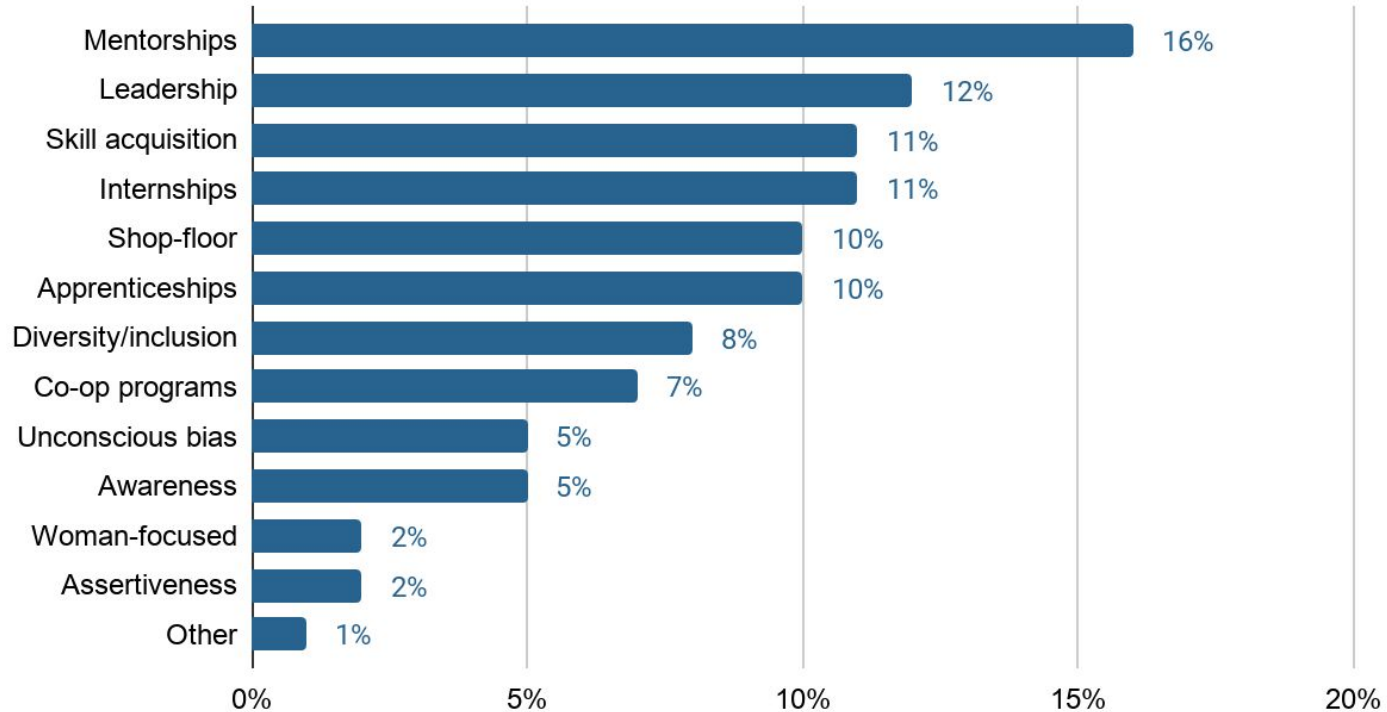


<sup>1</sup> Sample size n=77; in Female n=61; in Male n=15; in non-binary and other n=1.

<sup>2</sup> Survey respondents identifying as non-binary or other constituted less than 10 responses and were not included due to sample size.

# Mentorships Are the Most Popular Training Option Offered

What kinds of training programs does your company offer?



<sup>1</sup> Sample size n=321.

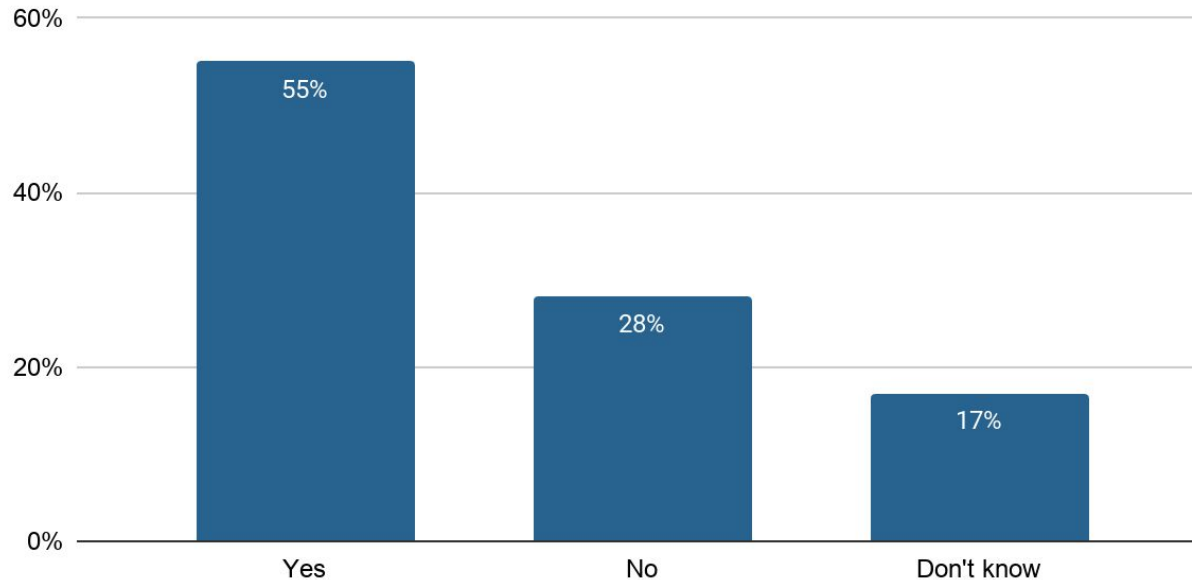
<sup>2</sup> Other includes safety training, emotional intelligence training, and lean manufacturing training.

## Looking Forward



# 55% of Manufacturing Businesses Are Hiring This Year

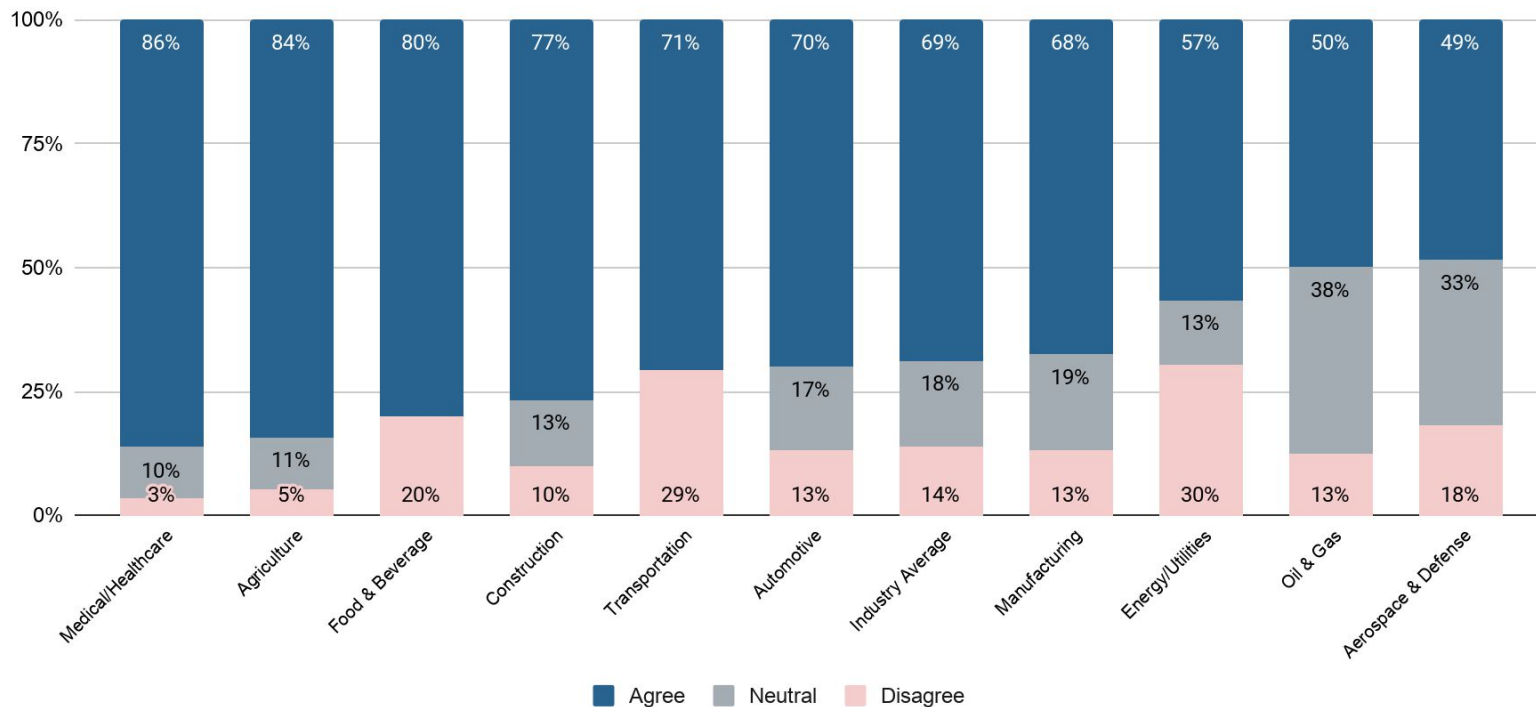
Is your business hiring or planning to hire in the remainder of 2020?



<sup>1</sup> Sample size n=465.

# Medical/Healthcare and Agriculture Sectors Are Most Optimistic About Advancement of Women in Manufacturing

I am optimistic about the ongoing advancement of women in manufacturing.



<sup>1</sup> Sample size n=465; in Medical/Healthcare n=29; in Agriculture n=18; in Food & Beverage n=20; in Construction n=30; in Transportation n=17; in Automotive n=60; in Manufacturing n=176; in Energy/Utilities n=23; in Oil & Gas n=8; in Aerospace & Defense n=32; in Other n=52.

# Unique Ways Companies Promote Diversity



- “We have several affinity groups (women’s network, African American, etc.) that are open to all employees, plus an inclusion and diversity council.”
- “We have affinity networks and a dedicated Inclusion & Diversity leader. We also host an "All In Rally" which is an all day series of events on how we can learn more and promote Diversity and Inclusion.”
- “We are a minority and woman-owned business. As the owner, I speak about our diverse company and the longevity of the careers and dedication of our workforce.”
- “My company's goal is to be the employer of choice. They strongly encourage everyone to apply for any advancement positions that come available without regard to gender, race, etc.”
- “We also have goals and policies relative to ensuring our supply base shares a commitment to diversification, in order to further leverage our impact on diversifying manufacturing and engineering.”
- “Our company has many Employee Resource Groups that promote female advancement as well as diversity in the workplace. The company has also made a very strong stance that inclusion will be a very big part of our future”







## Recommendations

1. There are jobs to be done: women fill only 33% of manufacturing industry jobs and 26% of industry leadership positions.
2. Automotive (19%), Aerospace & Defense (18%), and Agriculture (17%) rank the lowest in female leadership progression. Companies in these sectors should invest in resources, training, mentorship, or association partnerships.
3. Focus on adding or creating a balance of the most desired benefits:
  - Basic benefit differences: transportation/commuting allowance (73% of women and 55% of men), flexible work schedule (28% of women and 22% of men), and tuition reimbursement (23% of women and 42% of men).
  - Family benefits: on-site childcare (93% of women and 86% of men), paid paternity leave (38% of women and 36% of men), and paid family medical leave (38% of women and 36% of men).
4. Increase mentorship opportunities, especially for women: second only to associations, 27% of women found mentorships as a helpful resource. However, only 43% of women have a mentor.
5. Leverage association memberships or other network opportunities to find qualified female candidates instead of relying on traditional hiring practices.
6. **Future Insights:** due to the significant differences in female representation in general employment and leadership per state, further research is needed to help us extrapolate key learnings that can be deployed across states.

## Join the Discussion

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If you're interested in future opportunities to contribute, please visit <https://business.thomasnet.com/join-survey-panel> or click the button below to sign up for the Thomas Industrial Survey Panel. You'll be invited to join future surveys, webinars, and discussions with other thought leaders in your community regarding industry-specific subject matter and industrial talking points.

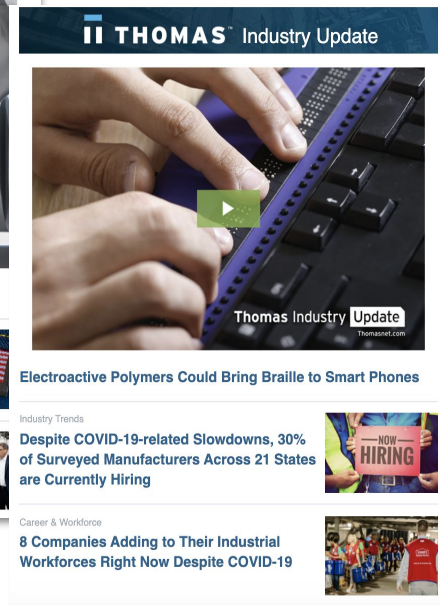
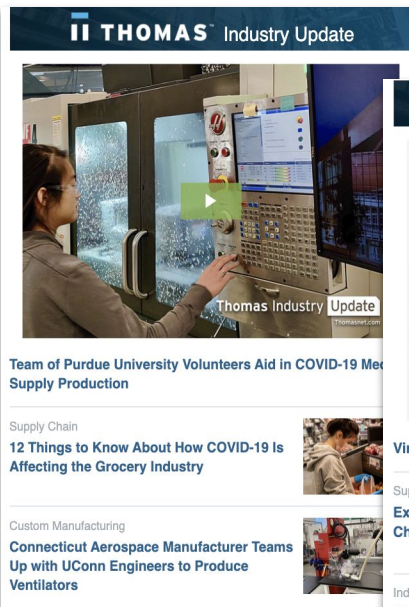
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A woman with short blonde hair, wearing safety glasses and green overalls over a white long-sleeved shirt, is focused on her work at a factory workstation. She is assembling small metal components on a green conveyor belt. In the background, another worker is visible through a glass partition, and industrial machinery is present. The scene is brightly lit, typical of a modern manufacturing environment.

## Methodology, Demographics, & Firmographics





# Methodology

This Women in Manufacturing Survey was conducted over a 30-day period from August 11 - September 10, 2020.

A total of 748 respondents participated and 465 responses qualified for the survey. Due to the conditional nature of the survey, some datasets may contain a different respondent number which is annotated in the footnotes for clarity.

## INVITED PARTICIPANTS:

- **Qualifiers:**

- Complete, non-duplicate entry
- Required to work in the manufacturing or industrial sector in North America

- **Recruitment:**

- Respondents were invited to participate via Thomas and Women in Manufacturing emails. The invitation pool was incentivized with an executive summary report of the survey findings.

## RESPONDENT'S FIRMOGRAPHICS:

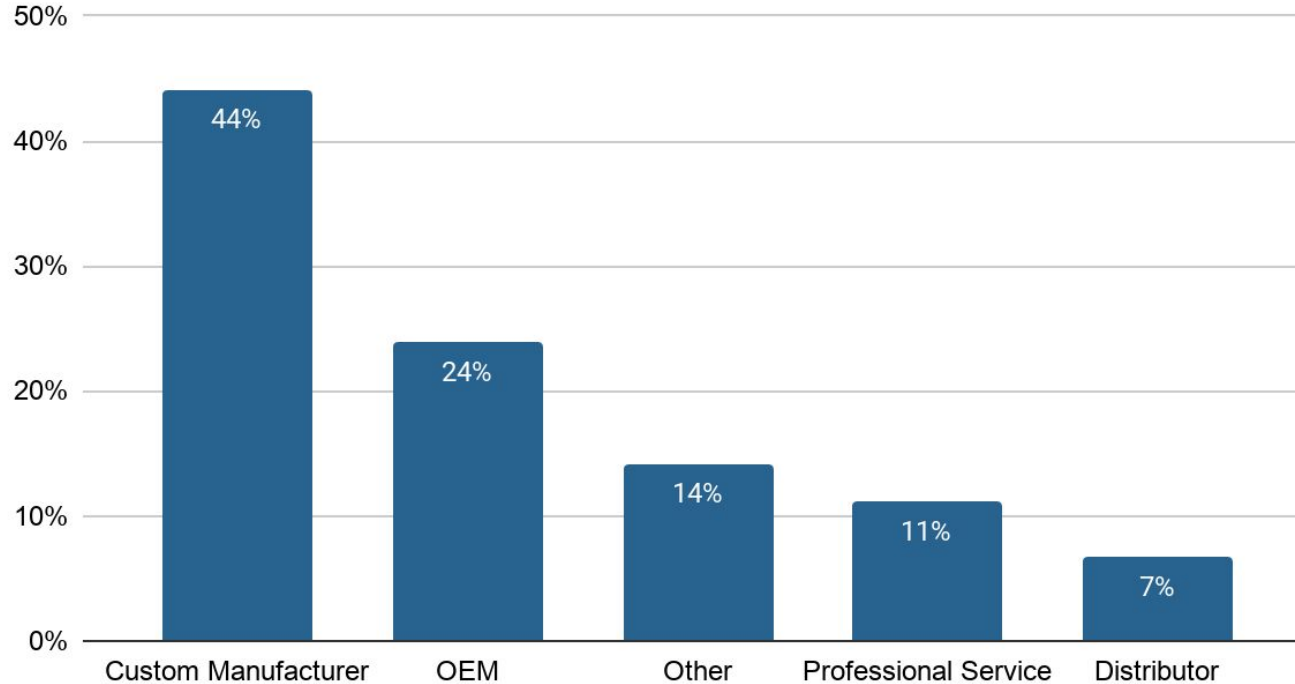
- **Revenue:** Business revenues span from less than \$4.9 million to over \$1 billion.
- **Employees:** Company size spans from less than 100 to more than 15,000 employees.
- **Business Descriptor:** The majority of the respondents identify as custom manufacturers and OEMs.
- **Headquarters Location:** Identified by state/province.

## SURVEY INFORMATION:

- **Survey Administration:** Qualtrics, online survey
- **Survey Language:** English
- **Questions:** 45 questions were included

# Respondents Are Mostly Custom Manufacturers and OEMs

Which option best describes your business?

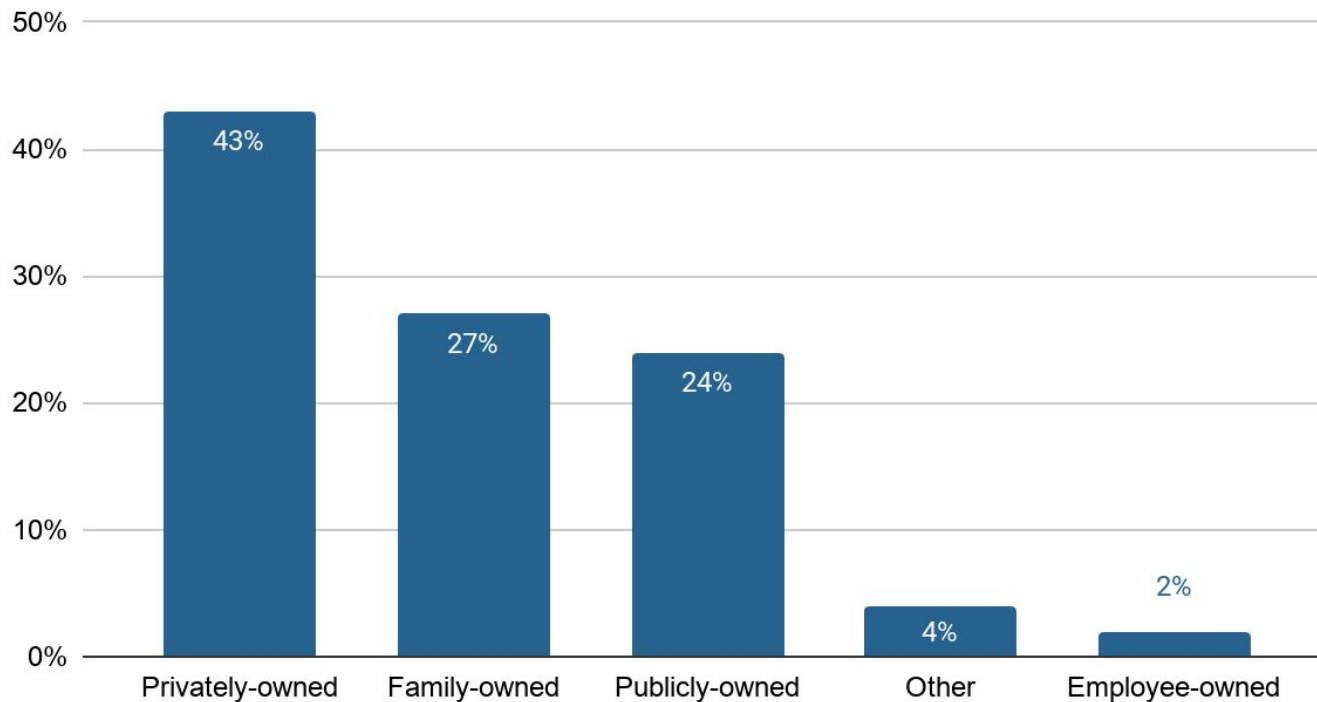


<sup>1</sup> Total n=465.

<sup>2</sup> Other includes Research & Development, Investment, and Federal Agency.

# Most Respondent Businesses Are Privately-Owned

What is the ownership status of your business?

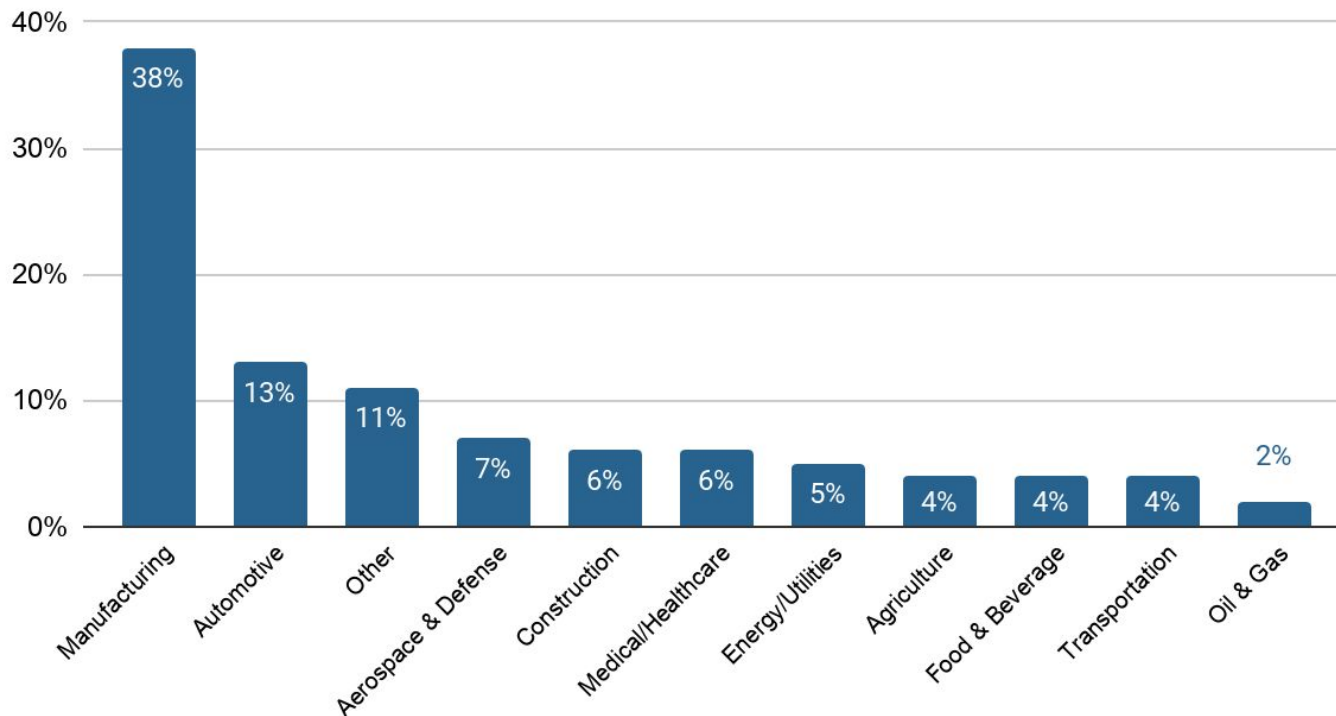


<sup>1</sup> Total n=465.

<sup>2</sup> Other includes Federal Agency, Non-profit, and Owned by companies headquartered in other countries.

## Respondents Are From Variety of Industries

Which industrial sector does your business primarily serve?

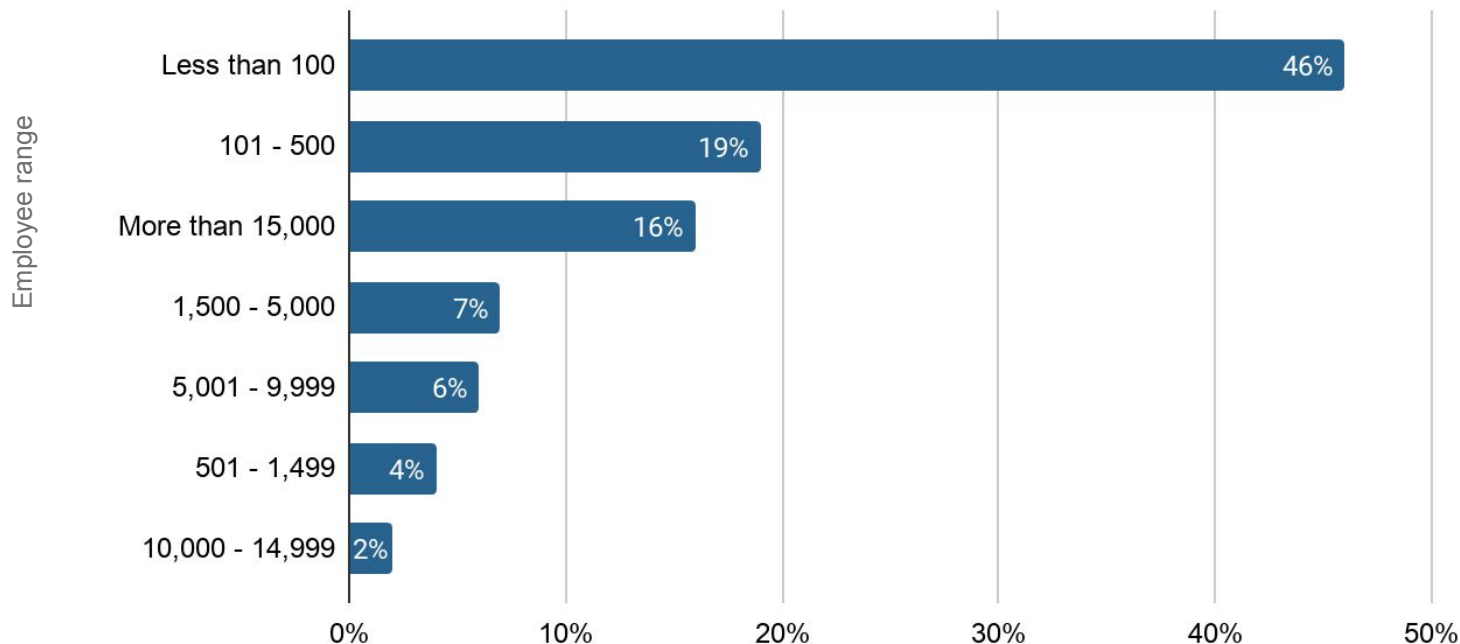


<sup>1</sup> Total n=465.

<sup>2</sup> Other includes Packaging, Environmental, and Telecommunication.

# Most Respondents Work at Companies with Less Than 100 Employees

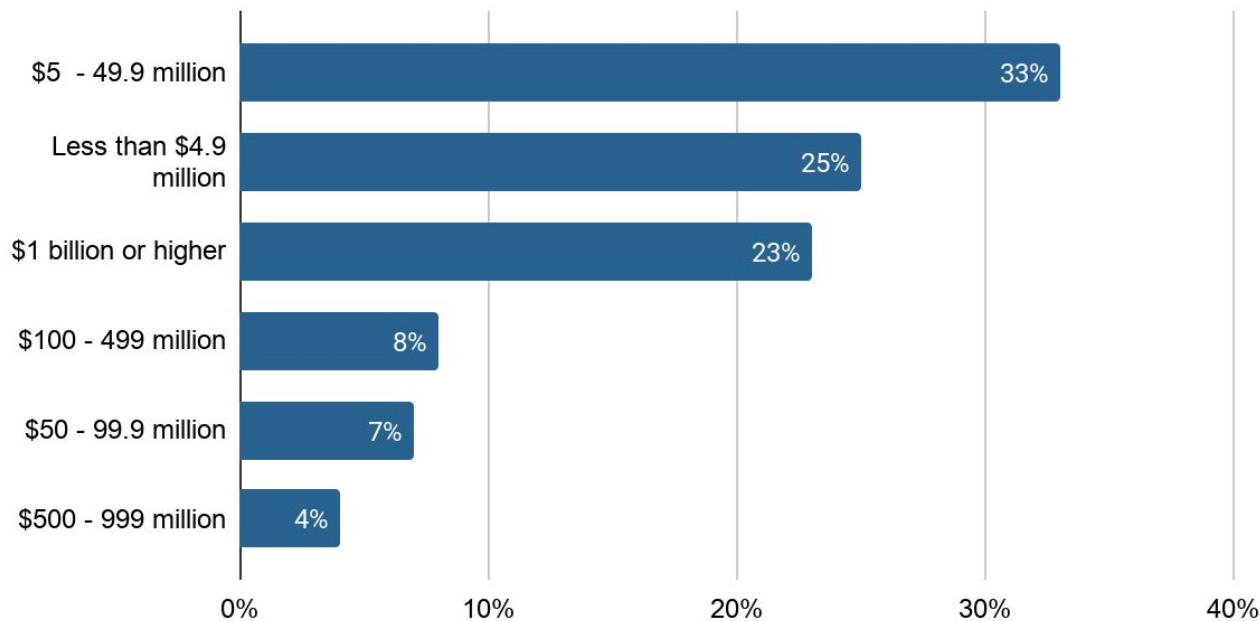
How many employees does your business (entire company) have?



<sup>1</sup> Total n=465.

# Respondents Work at Diversely Sized Companies Based on Annual Gross Revenue

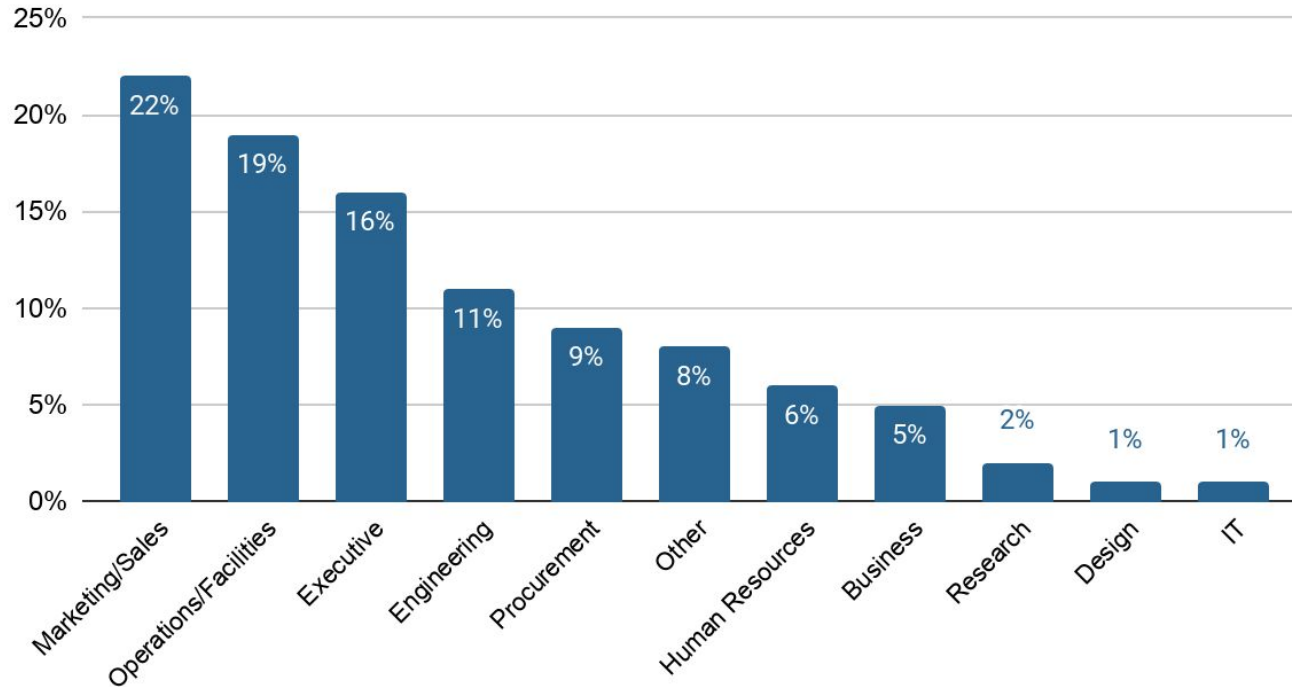
What is the annual gross revenue of your business (entire company)?



<sup>1</sup> Total n=465.

# Respondents Represent a Variety of Business Departments

Which option best describes the department you work in?



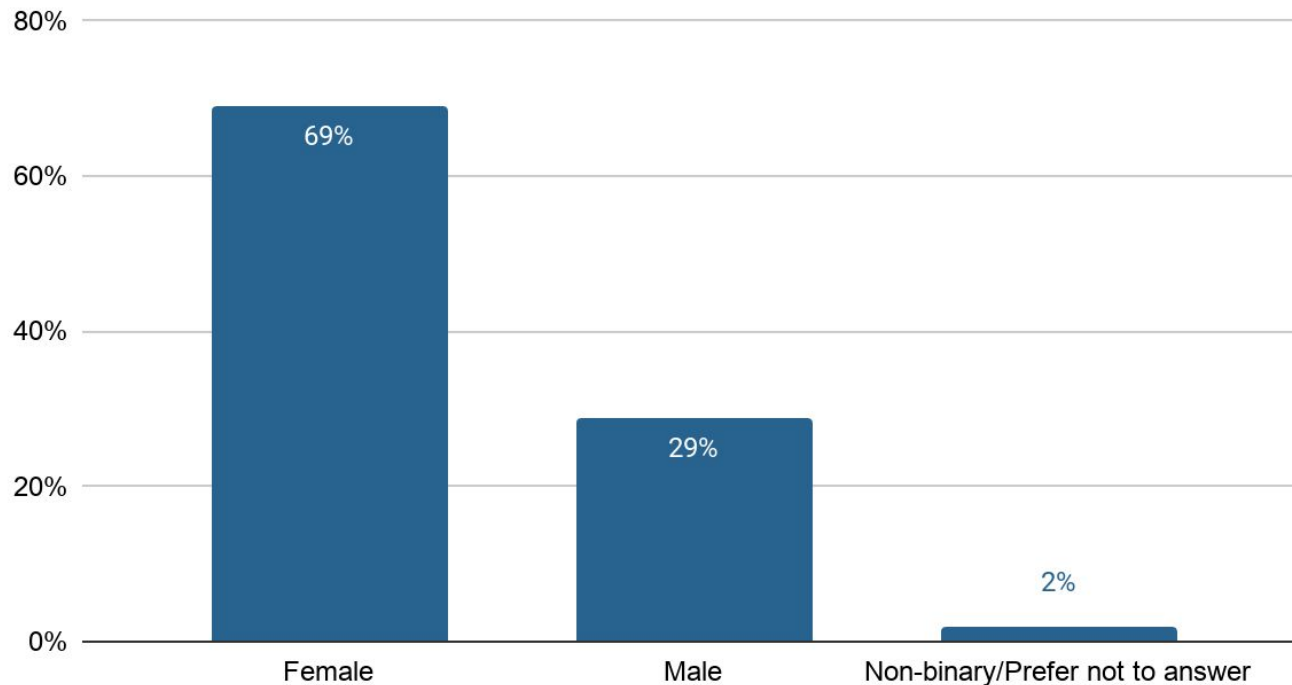
<sup>1</sup> Total n=465.

<sup>2</sup> Other includes Consulting, Customer Service, Logistics, and Quality Control.



# Most Respondents Are Women

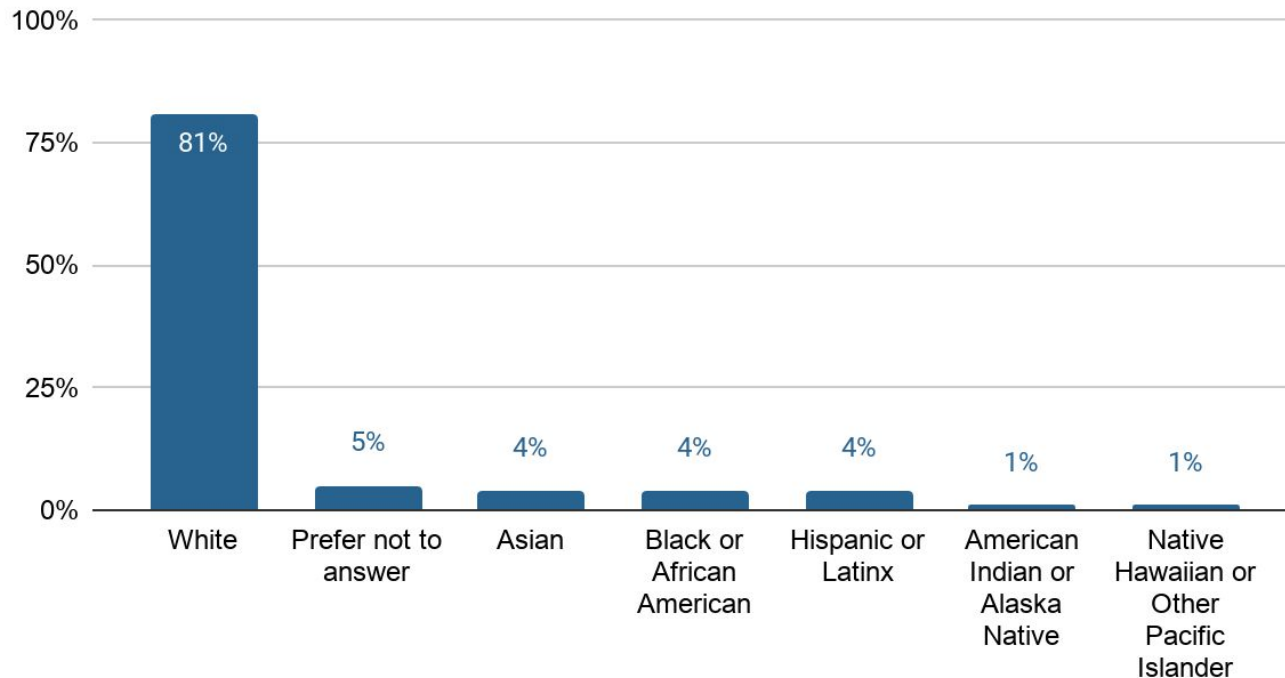
What is your gender?



<sup>1</sup> Total n=465.

# Respondent Self Identification Breakdown

How do you self identify?



<sup>1</sup> Total n=465.



## Contact Information

**Rita Lieberman**

Director, Marketing Communications  
Thomas  
5 Penn Plaza  
New York, New York 10001

**Email:** [rlieberman@thomasnet.com](mailto:rlieberman@thomasnet.com)

### Report Produced By:

**Cathy Ma**, Director, User Acquisition

**Mariah Hauck**, Content Marketing Specialist

**David Matava**, Associate Creative Director



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