



Untapped Potential

MAIN PAPER

Attracting and engaging women in Canadian manufacturing



Canadian
Manufacturers &
Exporters

Manufacturiers et
Exportateurs du
Canada

Who We Are

About Canadian Manufacturers & Exporters

Since 1871, Canadian Manufacturers & Exporters has been helping manufacturers grow at home and thrive around the world. In 2016, CME released Industrie 2030 – a roadmap for doubling Canadian manufacturing activity by 2030. Our focus is to ensure the sector is dynamic, profitable, productive, innovative and growing. We aim to do this by strengthening the labour force, accelerating the adoption of advanced technology, supporting product commercialization, expanding marketplaces and, most importantly, ensuring a globally-competitive business environment. CME is a member-driven association that directly represents more than 2,500 leading companies who account for an estimated 82 per cent of manufacturing output and 90 per cent of Canada's exports.

CME National Board of Directors Chair Rhonda Barnet, President & COO of Steelworks Design Inc. launched CME's national Women in Manufacturing Working Group in March 2017 as a result of the association's Industrie 2030 initiative. Chaired by Elise Maheu, Director, Government Affairs, 3M Canada the member-driven working group, which includes women and men representing all sizes of CME member manufacturing firms from across Canada, is dedicated to supporting, promoting and inspiring women to pursue careers in manufacturing.

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Welcome Message

The growth of Canada's working age population will be almost zero by 2020. For Canadian businesses, this means that recruiting and retaining qualified employees is going to become harder than it is already. In a context where skills and labour shortages already rank as the single biggest concern for Canadian manufacturers, taking action to ensure they have the workforce they need to expand is a vital necessity.

As this report makes clear, women make up less than 10 per cent of skilled production workers across Canada and less than one quarter of science, technology, engineering and math (STEM) workers. There is no larger, more relatively untapped group of talent to work in manufacturing in this country.

As Canada's development bank, it is our job at BDC to ensure Canadian entrepreneurs have the resources they need to thrive. This is why we are collaborating with CME as the National partner of their "Women in Manufacturing" initiative.

As a member of the Women in Manufacturing Working Group, the goal of this joint initiative will be to attract more women into manufacturing professions so that companies can grow and replace the existing and aging workforce. To do this, we need better information about careers in manufacturing, clearer career progression and opportunities, and stronger education in STEM fields. It also involves changing the perception of manufacturing. Many Canadians still believe that a job in manufacturing is monotonous assembly-line tasks, or work that is done in a dirty, dangerous environment. These preconceptions bear little resemblance to the modern, innovative and technologically advanced manufacturing operations.

Understanding the current realities of women in Canadian industry is a first step to improving female representation in manufacturing. This report is a good start. It provides an overview of the current situation and identifies key issues that need addressing to move forward. We will continue to work with partners and Canadian business owners to find solutions to these problems in the coming months and years.

Our hope is that in a few years, the participation of women in manufacturing will not be a challenge, but rather a strength that is powering the competitiveness and growth of Canadian manufacturers internationally.



Lesley Lawrence
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Though experiencing rapid change, the Canadian manufacturing sector remains a key component of our economy, accounting for about \$173 billion (more than 10%) of our GDP, with more than \$318 billion in annual exports (61% of all of Canada's merchandise exports). How will innovation and technology impact this sector? How will we see the workforce change and how can we help to grow this sector? How will international trade relationships and agreements impact the sector in the near-term? These are just some of the critical questions facing the industry.

As CME's survey on Women in Manufacturing notes, attracting and retaining a skilled labour force will be an increasing concern for about 60% of manufacturers over the next five years. With women accounting for 47.5% of the total force, but only 28% in the manufacturing sector, this remains a key untapped resource for the industry. KPMG is pleased to have partnered with CME's Working Group to find a path forward that will help to engage, attract and empower women in manufacturing to ensure Canadian manufacturers are able to grow and maximize product development and manufacturing opportunities in the future.

We are encouraged by the survey's findings that the majority of women in manufacturing find their careers to be rewarding, not only financially, but also in terms of the opportunities to learn, grow and challenge themselves. The challenge is now to address the issues and perceptions, while ensuring improved visibility among female youth. As we work to find solutions around the five Strategic Imperatives identified in the report, we look forward to seeing improvements for women in the workforce, with a more balanced and positive work environment, and the manufacturing sector, which will benefit from a deeper pool of skilled labour. With more skilled labour, the Canadian manufacturing industry will be better positioned to address therapid changes and improve its global competitiveness. What lies ahead for the industry? In our most recent Canadian Manufacturing Outlook, through our survey of 220 manufacturing executives across the country, we found that Canada's manufacturing sector has the skills, confidence, and tools for growth. The sector now needs to build upon those capabilities. In addition to growing female participation in the workforce, companies will require more innovations and collaborations, along with a stronger appetite for opportunities beyond the United States.

We hope all of you find the report to be beneficial and insightful. We look forward to having the opportunity to connect with you over the course of 2018.

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Introduction

A healthy and growing manufacturing sector is critical to Canada's long-term economic prosperity. Manufacturers generate more than \$600 billion in sales every year and directly employ 1.7 million Canadians. The sector accounts for two thirds of Canada's exports worldwide and directly contributes 10.4 per cent of the country's GDP. When spinoff effects are included, manufacturing directly or indirectly drives nearly 30 per cent of all employment and economic activity in Canada.

Even so, the manufacturing sector in Canada faces numerous challenges. Output growth has been slow. Productivity and investment levels are low and our competitive position is slipping worldwide. Given the importance of manufacturing to prosperity and living standards in Canada, these trends need to be reversed. It was for this reason that, in 2016, Canadian Manufacturers & Exporters (CME) developed a national strategy for manufacturing in Canada. That strategy, *Industrie 2030*, was the result of widespread consultations with manufacturers to identify the key issues that need to be addressed to revitalize the sector and set the country on a path to doubling manufacturing output and exports by 2030.

Throughout those consultations, one of the most frequent issues raised by Canadian business leaders was chronic labour and skills shortages. In the *2016 Management Issues Survey*, companies were asked to identify the most pressing challenges they face today. The top response was attracting or retaining skilled labour. Nearly 40 per cent of respondents stated that they currently face labour and/or skills shortages, and nearly 60 per cent anticipated such shortages within the next five years.

These shortages are a major impediment to manufacturing growth and competitiveness. According to *Management Issues Survey* results, nearly 20 per cent of businesses say that shortages are curbing business growth and new product development, and the same share are foregoing production opportunities because they lack workers. More concerning still, if these issues are left unaddressed, 16 per cent of businesses stated that they will shift production and investment outside of Canada.

One of the key recommendations to come out of *Industrie 2030* was for governments and businesses to look for ways to attract more women to manufacturing jobs. There are 8.6 million women working in Canada. They make up about 48 per cent of the Canadian workforce, but only 28 per cent of the jobs in manufacturing. Moreover, this gender imbalance is not improving; the share of manufacturing jobs held by women has remained unchanged for 30 years.

In short, women represent a vast and relatively untapped resource for manufacturers. Attracting more women is critical to helping manufacturing companies grow, fill job vacancies, and replace their existing aging workforce. For this reason, CME National Board of Directors Chair, Rhonda Barnet, President & CEO of Steelworks Design, Inc., established a Women in Manufacturing Working Group tasked with identifying how best to improve female representation in manufacturing. The member Working Group, chaired by Elise Maheu, Director, Government Affairs, 3M Company Canada, identified three pillars that must support any female engagement strategy. Those pillars are:

Engage and Inspire – introduce young girls to education in science, technology, engineering and mathematics (STEM) fields, as well as the skilled trades.

Attract and Retain – increase the number of women entering and staying in the manufacturing workforce.

Empower, Support and Accelerate – Help women achieve success in the workplace by breaking down barriers to their personal and professional growth.

It was the firm view of the Working Group that the most valuable insight into this issue would come from women with direct, firsthand experience in manufacturing. As such, CME built partnerships with the Business Development Bank of Canada, KPMG LLP, Rockwell Automation, 3M Canada, Tenaris, TD, and People Corporation to conduct a survey of women currently employed in the sector. Our goal was to learn about how women feel about their experience to date; and to hear their perspectives on how female representation in the manufacturing workforce could be improved.

From those survey results, as well as extensive one-on-one consultations with female business leaders, CME has identified a path forward to improving female representation in manufacturing. This paper represents the first step along that path. It provides an analysis of the current gender gap in manufacturing and identifies the key issues and challenges that need to be addressed in order to close that gap.

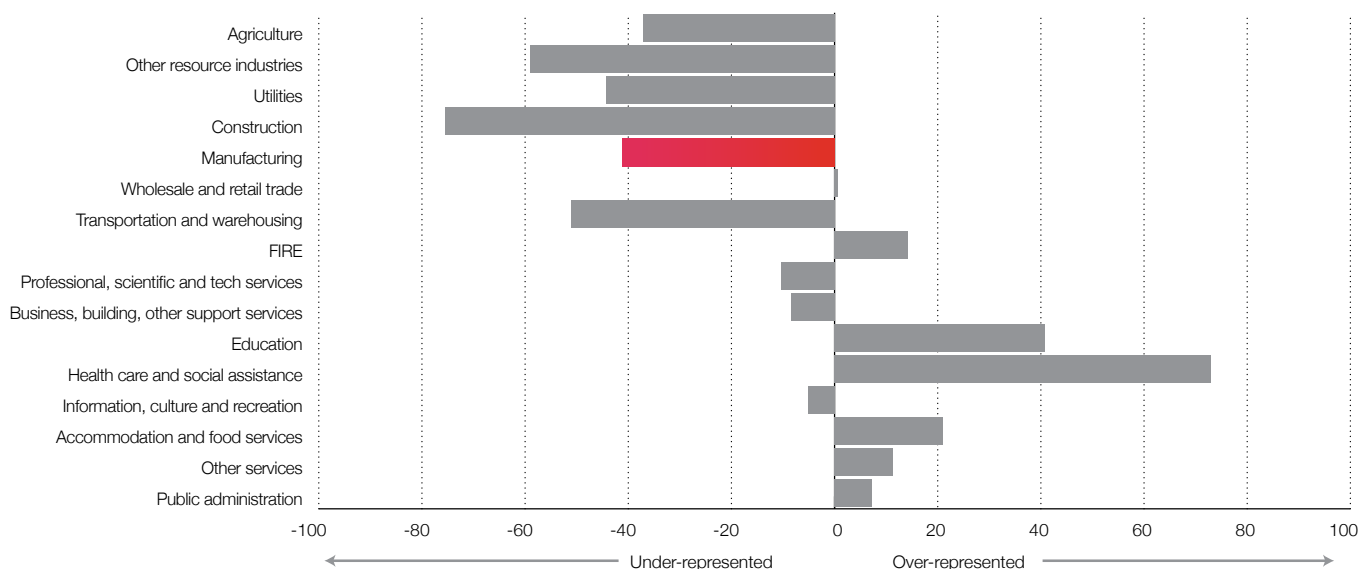
Women in Canadian Manufacturing

Female participation in the Canadian labour market

Women hold nearly 48 per cent of all jobs in Canada. However, the gender distribution of the labour force in Canada varies considerably from one industry to the next. Women hold nearly 83 per cent of all jobs in health care and social services industries, and two thirds of all jobs in education. At the other end of the spectrum, only 12 per cent of construction jobs are held by women. The female share of employment is also well below average in resource extraction, utilities, manufacturing, and transportation and warehousing.

FEMALE REPRESENTATION IN THE WORKFORCE

(% above/below the all-industry average)



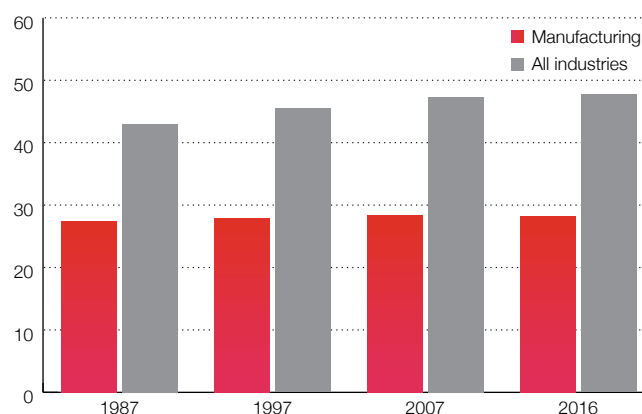
Data source: Statistics Canada

Female participation in the manufacturing workforce

Women are significantly under-represented in the manufacturing workforce. There are about 1.7 million people employed in manufacturing today. Of that total, only 28 per cent of those jobs (about 476,000 positions) are held by women.

More concerning is that the situation is not improving. Over the last 30 years, the share of total jobs held by women across all industries rose from 43 per cent to 48 per cent. In manufacturing, however, there has been no improvement at all. The share of manufacturing jobs held by women has remained essentially flat, fluctuating between 27 and 29 per cent, with no clear trend in any direction.

FEMALE SHARE OF THE CANADIAN WORKFORCE (in %)

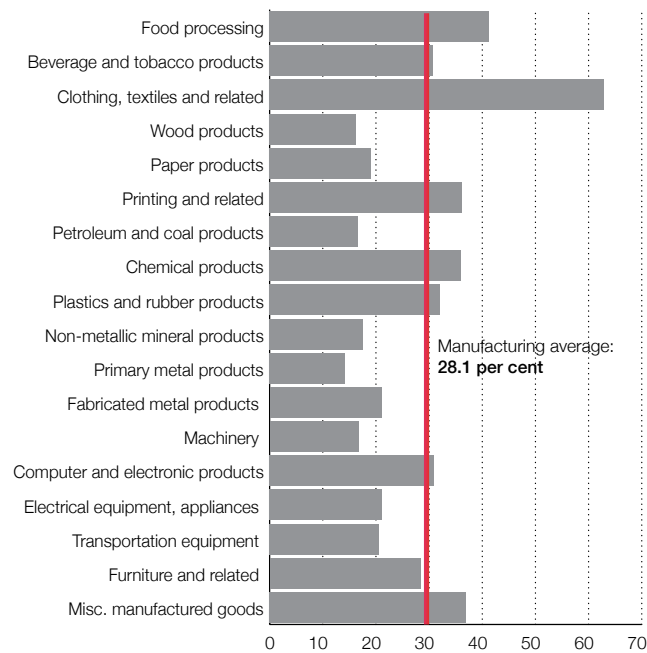


Female representation by manufacturing industry

Within manufacturing, female employment varies dramatically depending on the industry. A holdover from traditional manufacturing gender roles, women account for more than 62 per cent of all jobs in clothing and textiles production. They are also relatively well-represented in food processing, making up 41 per cent of total employment in that industry.

However, nowhere else in manufacturing do women account for even 40 per cent of all jobs. In industries like chemicals and plastics, the share is as high as 36 per cent. Elsewhere it is much lower, with the disparities largest in resource-based manufacturing. In forest products, petroleum refining, primary metals and non-metallic minerals production, women make up less than 20 per cent of the workforce.

FEMALE EMPLOYMENT BY MANUFACTURING INDUSTRY (% of total jobs)



Data source: Statistics Canada

Employment by occupation type

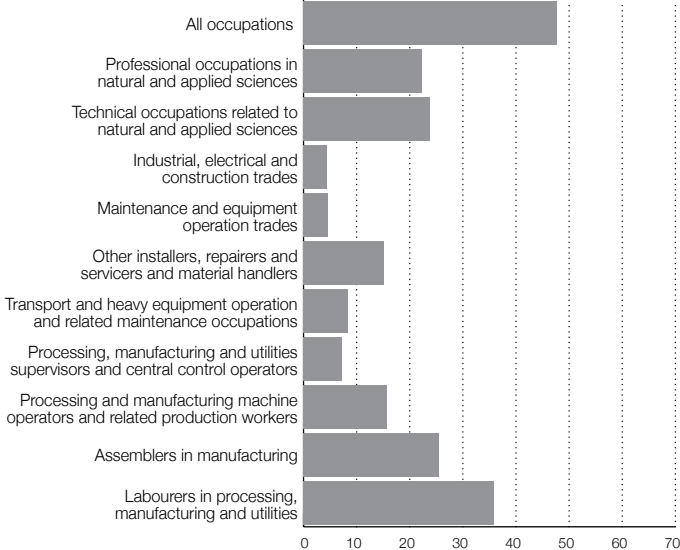
To say that women make up just 28 per cent of all manufacturing employment says little about the kinds of jobs that women tend to have. Manufacturing operations contain a wide range of occupation types, only some of which are explicitly tied to the physical production of goods. Like businesses in any other goods- or services-producing industry, manufacturers employ people in executive and management positions. They also employ a wide range of professionals in areas like accounting, marketing, communications and business development.

Unfortunately, there is only limited information available on the types of jobs women tend to have within manufacturing. The chart below shows the female representation in various occupations that are linked to manufacturing. It is important to stress that this is not a breakdown of jobs held by women in manufacturing but rather, their employment share in occupations that can be found in manufacturing.

The results show marked disparities in certain key occupations. Across Canada and across all industries, women hold less than 4.5 per cent of all skilled trades jobs. They also account for just 8.3 per cent of all jobs in transportation and heavy machinery operation, as well as 7.2 per cent of jobs in supervisory and central control operation positions.

Women are most highly represented in general labour positions (35.9 per cent of all jobs), and in professional and technical positions related to natural and applied sciences. Even so, women hold less than one in four of these STEM jobs.

FEMALE SHARE OF THE WORKFORCE IN SELECTED MANUFACTURING-RELATED OCCUPATIONS (in %)



Data source: Statistics Canada

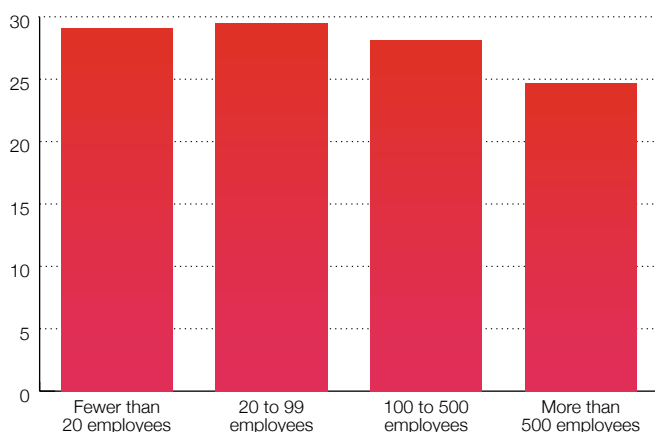
Employment by size of manufacturing business

Generally speaking, women are more likely to work at smaller manufacturing operations. For businesses with fewer than 100 employees, women make up more than 29 per cent of the workforce. That share falls to 28.1 per cent for companies with 100-500 employees and falls further to 24.6 per cent in large companies (those with more than 500 employees).

The fact that women are most underrepresented in large companies is somewhat counterintuitive. Large companies are more commonly associated with having the human resources capacity, hiring policies and support systems in place to attract and retain female employment. At the same time, however, only large manufacturing businesses have made any progress at increasing female representation in the workforce. Today's 24.6 per cent share is a noticeable improvement over 1998 levels when women made up less than 20 per cent of workers in large manufacturing businesses. Meanwhile, smaller companies have made no progress in increasing female employment over that period.

WOMEN ARE MORE LIKELY TO WORK AT SMALLER MANUFACTURING OPERATIONS

(Share of women in the workforce by company size, in %)



Data source: Statistics Canada

Female representation by province

The gender gap in manufacturing employment varies by province. Because of its large size relative to other provinces, Ontario effectively drives the national average. It, along with PEI, are the only two provinces where women have an above-average share of the available jobs in manufacturing. Ontario leads the country in female representation with women holding just over 30 per cent of all manufacturing jobs, while PEI is slightly above the 28.1 per cent national average.

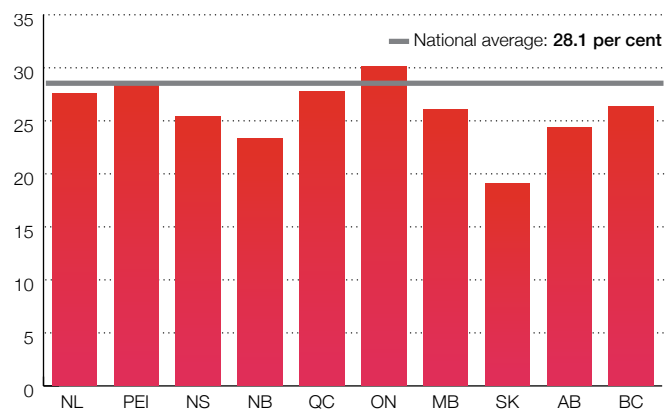
At the other end of the spectrum, women hold just 19 per cent of all manufacturing jobs in Saskatchewan. Female representation is also notably low in Alberta and New Brunswick.

In part, these provincial disparities are a function of the structure of manufacturing in each province. In Saskatchewan, Alberta and New Brunswick, petroleum refining – which has female representation of less than 17 per cent – is a major industry. Machinery production also employs relatively few women and is a major industry in Saskatchewan.

However, this is only a partial explanation. In Ontario, transportation equipment production is by far the province's most important manufacturing industry and at 21.5 per cent, female representation in that industry is well below average.

FEMALE SHARE OF THE MANUFACTURING WORKFORCE BY PROVINCE – 2016

(in %)



Data source: Statistics Canada

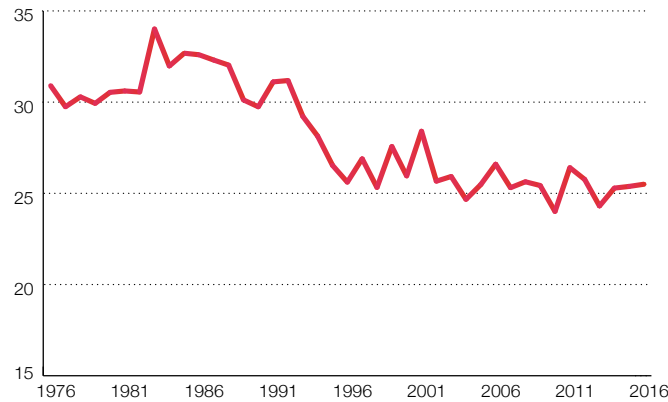
New entrants into manufacturing

Demographic trends suggest that if no action is taken, the share of women working in manufacturing will fall even further in the years ahead. In the early 1980s, women accounted for as much as 34 per cent of manufacturing workers under the age of 25. That influx of women caused the gender imbalance in manufacturing to narrow; women made up less than 25 per cent of the manufacturing workforce in the mid-1970s, rising to about 28 per cent in the mid-1980s, where it has since remained.

Beginning in the early 1990s, however, young women increasingly began to choose other industries in which to work. The female share of manufacturing employees under the age of 25 fell from 31 per cent to about 25 per cent in the mid-1990s and has been more or less flat ever since.

In other words, women make up 28 per cent of manufacturing workers because of a relatively large cohort of hires in the early 1980s. As that cohort ages and approaches retirement, it is not being replaced by younger women. Twenty years down the road, women could make up only one quarter of total manufacturing employment.

YOUNG WOMEN ARE NOT ENTERING MANUFACTURING
(Female share of mfg employees aged 15-24, in %)



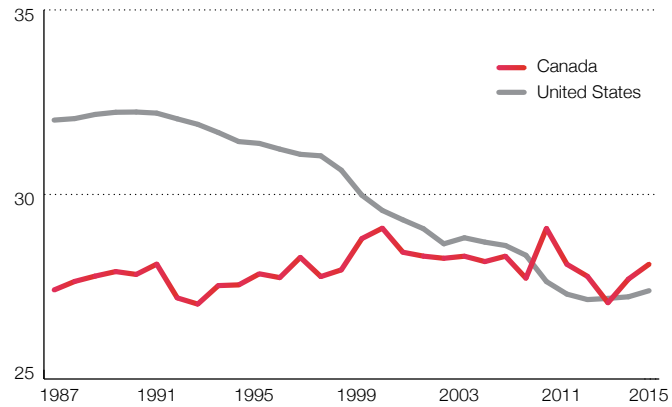
Data source: Statistics Canada

International comparisons

The gender imbalance in Canadian manufacturing is not unique. Data from advanced economies such as the United States and the European Union tell a similar story; in the US, women hold about 27 per cent of all manufacturing jobs while in the EU, the share is just over 29 per cent.

Moreover, these shares have been falling over time. In the US, women held about 32 per cent of all manufacturing jobs in the late 1980s. That share fell steadily through the 1990s and 2000s before leveling off at around 27 per cent in the early 2010s where it remains today. In the EU, the share of women in manufacturing has been edging downward for at least the past 15 years.

FEMALE SHARE OF MANUFACTURING EMPLOYMENT
(in %)

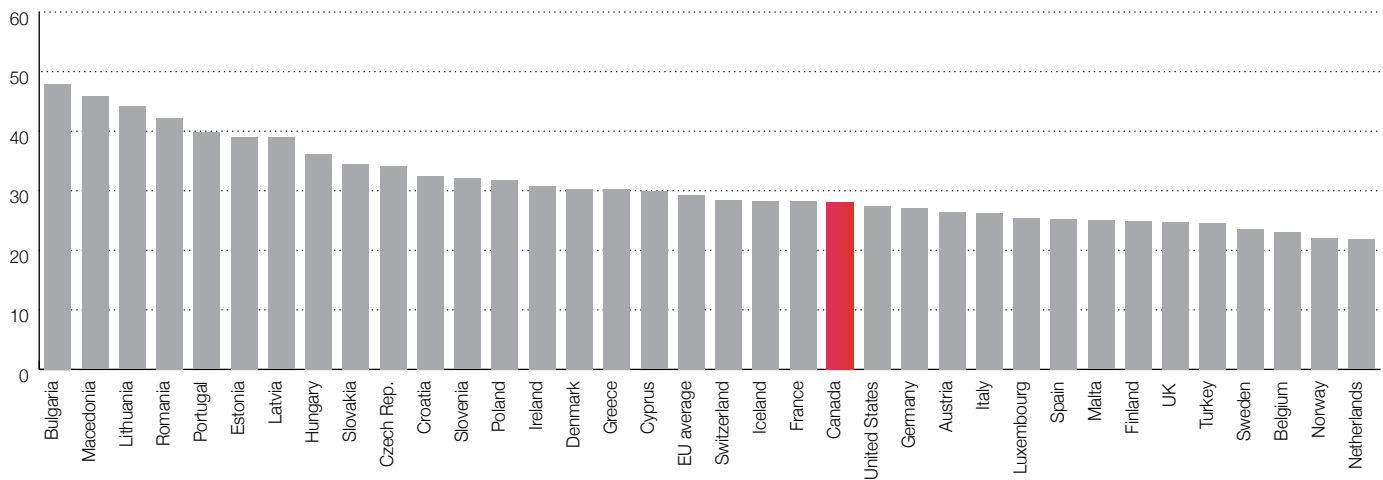


Data source: Statistics Canada, US Bureau of Labor Statistics

At least one factor explaining this trend is the changing nature of manufacturing in advanced economies. As manufacturing becomes more dependent on technology and specialized machinery, many of the “traditional” labour-intensive manufacturing jobs that in the past were held by women have moved to other countries. The most obvious example of this is clothing and textiles production which has largely migrated to lower-cost jurisdictions overseas. As those industries decline in advanced economies, the female share of manufacturing employment has fallen.

However, there is another trend that is more difficult to address. Generally speaking, female representation in manufacturing is higher in poorer parts of the EU – former Soviet Republics and Portugal. Meanwhile, female representation in most large EU economies is comparable to Canada, and countries usually considered the most progressive on gender issues (Finland, Norway, Sweden and the Netherlands) have markedly wider gaps.

FEMALE EMPLOYMENT IN MANUFACTURING BY COUNTRY (% of total employment, 2016)

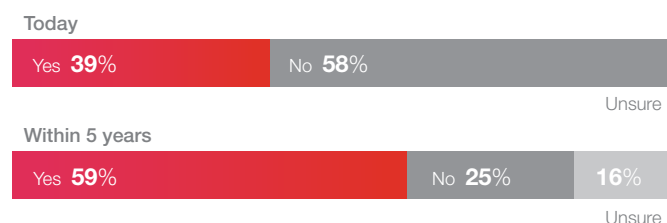


Data source: OECD

Labour and Skills Shortages in Canadian Manufacturing

Improving female participation in the manufacturing workforce is a key step towards addressing the chronic labour and skills shortages plaguing the sector. Indeed, in CME's 2016 *Management Issues Survey*, respondents stated that attracting or retaining skilled labour was the single most pressing issue they face. Nearly 40 per cent stated that they faced immediate shortages, while 60 per cent expected that shortages would arise within the next five years.

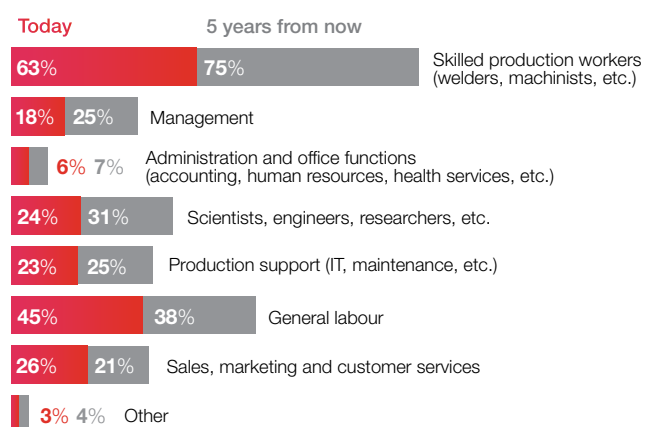
DOES YOUR COMPANY FACE IMMEDIATE LABOUR AND/OR SKILLS SHORTAGES TODAY? DO YOU ANTICIPATE SUCH SHORTAGES TO ARISE WITHIN THE NEXT FIVE YEARS?



These shortages are found in a range of occupations, but are most pronounced in skilled production work (skilled trades, machinery operators, etc.). According to the same survey, 63 per cent of businesses that need workers today reported shortages in those job types. Five years from now, more than 75 per cent of businesses expect to struggle to find workers in those fields.

While the most pressing challenge is in skilled production work, labour shortages are present in other manufacturing occupations as well. About 45 per cent of businesses report difficulty in finding general labourers. And just under one quarter of businesses report shortages in STEM-related occupations. Like the skilled trades, STEM-related labour shortages are expected to be even more pronounced in future. Five years from now, 31 per cent of businesses expect to have difficulty filling vacant STEM positions.

IN WHAT OCCUPATIONS DOES YOUR COMPANY FACE THE MOST URGENT LABOUR/SKILLS SHORTAGES TODAY? FIVE YEARS FROM NOW?



Attracting more women to manufacturing is perhaps the most effective way to address these issues. As noted in the previous section, women make up less than 10 per cent of skilled production workers across Canada and less than one quarter of STEM workers. There is no larger, more relatively untapped cohort in the country.

However, the benefits of improving female representation in manufacturing extend beyond helping manufacturers find the workers they need. Most notably, it is widely recognized that diversity in the workforce is a competitive strength – fostering innovation, new ideas and bringing new perspectives to the table. These all contribute to a company's long-term economic competitiveness.

Not only do women have much to offer manufacturers, but manufacturing has a lot to offer to women themselves. Generally speaking, manufacturing jobs tend to be more secure, more likely to be full-time and pay higher wages than in most other sectors. This is especially true in STEM-related fields where wages far exceed the national average.

Survey of Women in Manufacturing

Overview

Increasing the share of women in manufacturing is not an easy task. Despite myriad efforts to boost female enrolment in STEM education and the skilled trades, Canada has made little progress in closing the gender gap. The number of women enrolled in STEM fields is increasing, but not quickly enough to keep pace with rising male enrolment. Moreover, significant gender gaps remain in fields like architecture, engineering and related technologies, where women still make up less than 17 per cent of all college and university graduates.

Similarly, the number of women holding registered apprenticeships or trade qualifier certificates is growing, but women still account for no more than five per cent of certificate-holders in any manufacturing-related fields field.

On top of that, there are no clear international models of success that we can look to emulate. As noted above, female representation in manufacturing is low (and falling) in the United States and across the EU; it is lowest in the countries considered to be the most progressive on gender issues.

Attracting more women into manufacturing professions is critical to helping companies grow and to replace the existing and aging workforce. To do this, we must better understand the current realities of women in Canadian industry.

For this reason, Canadian Manufacturers & Exporters wanted to hear the perspectives of women already working in manufacturing: how they perceive their current work environment; the challenges and obstacles they face in advancing their careers; the perception of manufacturing as a career option for women; and the barriers that impede women-led manufacturing firms.

To capture that information, CME, in partnership with the Business Development Bank of Canada, KPMG LLP, Rockwell Automation, 3M Canada, Tenaris, TD, and People Corporation conducted a survey of women currently employed in manufacturing. The survey consisted of 30-35 questions and asked women about themselves, their current jobs and their views (and those of their female friends and family) about manufacturing in general. The survey took place from August 30th to September 28th, 2017 and received 826 responses. Of those, 77.5 per cent (640 individuals) were women.

Key findings from the survey are discussed below. Detailed results are provided in Appendix A.

Women's perspectives on working in manufacturing

OVERALL POSITIVE VIEW OF MANUFACTURING EMPLOYMENT

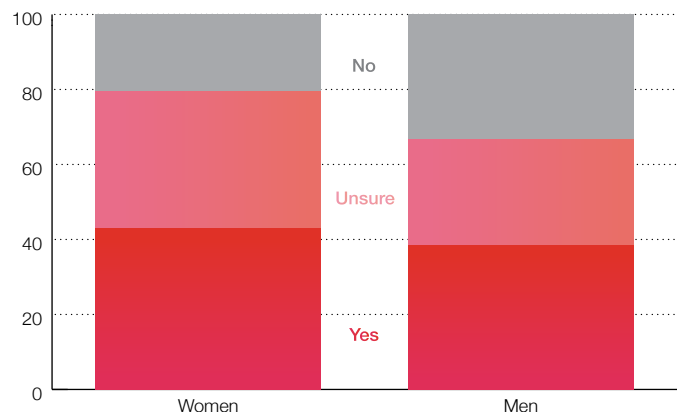
Women who work in manufacturing are happy with the career choice they made and would recommend it to others. This is perhaps the most important result from this survey. It confirms that manufacturing has much to offer female workers; that women enjoy working in manufacturing-related jobs; and that any obstacles to increasing female representation can be overcome.

KEY FINDING

Although they face some important challenges, women in manufacturing are generally happy with their career choice and would recommend it to others

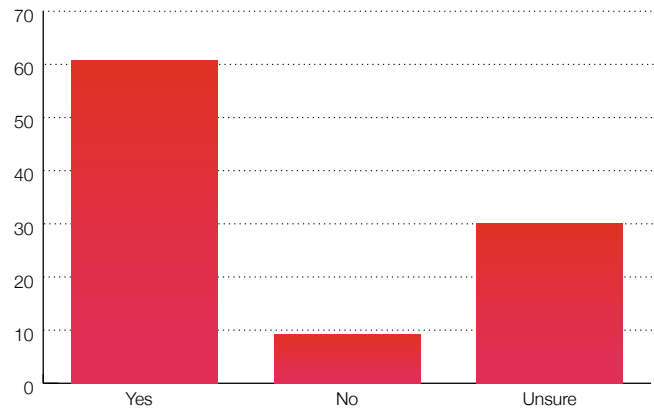
This high degree of job satisfaction was evident in the responses to a number of different survey questions. Most directly, women were asked if they would choose manufacturing again if they could restart their careers today. More than three quarters of respondents would either consider or actively choose manufacturing. Better still, 83 per cent of women under the age of 35 responded positively. In fact, women expressed more satisfaction with their career choice than did the men who filled in the survey.

IF YOU WERE TO RESTART YOUR CAREER, WOULD YOU CHOOSE MANUFACTURING AGAIN? (in %)



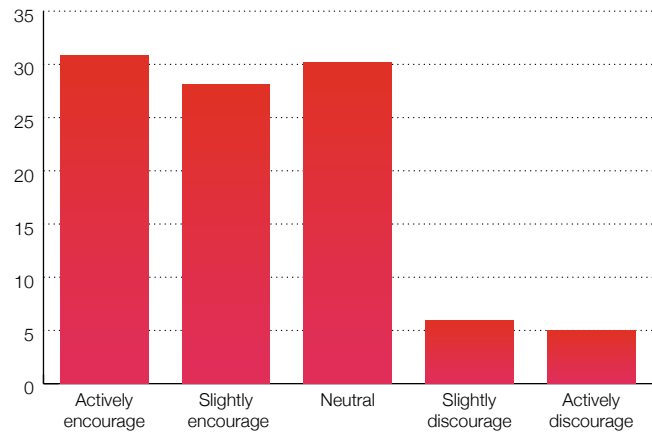
Because women in manufacturing tend to like their jobs, they are also confident that more women would choose to work in the sector if they had a better understanding of what manufacturing work was like. Only nine per cent of female respondents thought that exposing more women to manufacturing work would dissuade them from considering a job in that industry. Younger women and those in production-related jobs were even more convinced that other women would pursue manufacturing work if they had more information about it.

DO YOU THINK THAT IF WOMEN HAD MORE EXPOSURE TO MANUFACTURING WORK, THEY WOULD BE MORE LIKELY TO CONSIDER A CAREER IN THAT SECTOR?
(female respondents, in %)



Finally, women were asked if they would recommend manufacturing as a career option to their own daughters or female family members. More than half (59 per cent) said they would encourage such a move, while about 30 per cent chose to remain neutral and allow the individual to make their own choice. Only 10 per cent said they would try to discourage such a choice.

WOULD YOU ENCOURAGE A DAUGHTER OR FEMALE FAMILY MEMBER TO PURSUE A CAREER IN MANUFACTURING?
(female respondents, in %)



What is it about manufacturing work that women enjoy? Female survey respondents had a clear answer: they like the fact that manufacturing provides them with opportunities to learn, grow and challenge themselves, while earning good wages and salaries in the process. Nearly two thirds of women stated that they enjoyed the challenging and interesting work that manufacturing offered, while more than half cited the salaries and benefits that go along with that work.

In fact, one of the main benefits to production-related manufacturing work is that the pay gap between men and women is significantly lower than it is for other industries. On average, women earn about 76 cents on the dollar compared to men. That figure rises to over 80 cents for most production-related jobs in manufacturing, and in STEM-related fields is more than 85 cents. While women in manufacturing are acutely aware that a wage gap remains (see further below), the fact remains that encouraging more young women to choose manufacturing-related occupations will help to narrow that gap.



SPECIFIC WORKPLACE CHALLENGES

Sexism and a male-centric workplace culture

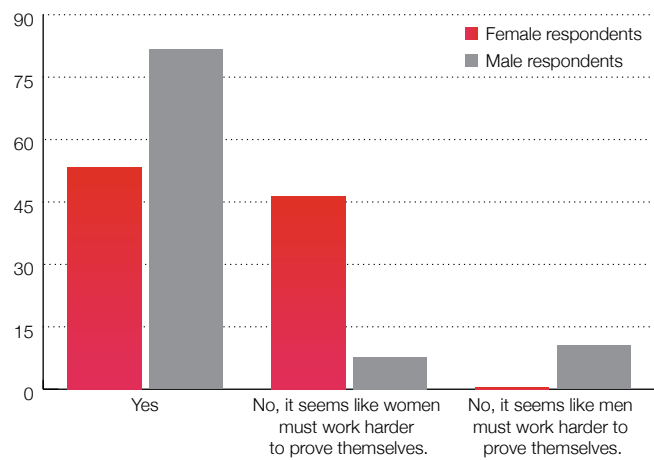
In any industry where women make up less than 30 per cent of the workforce and just a fraction of the management team, issues around sexism, discrimination and a male-centric work culture are bound to arise. Indeed, the most commonly-cited downside to manufacturing work – identified by one third of women who completed the survey – was that the workplace culture was male-centric.

WORKPLACE CULTURE CHALLENGES

32% of women say that a male-centric workplace culture is what they like least about working in manufacturing	28% think that steps are needed to make the workplace culture more welcoming to women
20% have quit a manufacturing job in part because of sexism/discrimination	30% think that women avoid manufacturing because of the current gender imbalance

Women also pointed to a number of more specific problems. When asked if they were treated fairly and equally in the workplace, close to half (about 46 per cent) felt that women need to work harder than men to prove themselves. Although only a small number of men filled in the survey, it is worth noting that the vast majority of male respondents believed that there was no workplace discrimination between the sexes. This perception gap is an issue that needs to be addressed.

DO YOU BELIEVE THAT MEN AND WOMEN ARE TREATED FAIRLY AND EQUALLY IN YOUR WORKPLACE?
(% of respondents)



On a related note, a significant share of women sees a persistent wage gap between themselves and their male colleagues. While nearly 70 per cent thought that wages were comparable for men and women working at similar jobs with similar degrees of experience, about 31 per cent disagreed.

WHO SEES A WAGE GAP IN MANUFACTURING?

38% of women in office jobs
28% of women in production-related jobs
4% of men

It is worth noting that younger women and those in production jobs were less likely to see a gender-based wage gap. This is particularly true for production workers; about 72 per cent of women in those jobs said that women earned about the same as men, while only 62 per cent of non-production workers felt the same way. This speaks to one of the more positive aspects of encouraging more women to pursue jobs in manufacturing: pay tends to be more merit-based and less discriminatory compared to many other occupations.

Opportunities for promotion and advancement

Women in manufacturing are ambitious and strive to advance their careers within the sector. More than three quarters of women surveyed either aspired to a management role within their company or were in such a position already. However, they also see a lack of promotion opportunities as being a drawback to working in a manufacturing field.

For women who had (or knew others who had) quit a manufacturing job in the past, there were three main reasons why they chose to leave: they found a job with higher pay or better benefits; they struggled with work-life balance in their previous position; and they found better opportunities for career advancement. Indeed, one of the main reasons women might not recommend manufacturing to their daughter or a female family member is that they saw limited opportunities for career growth.

For those working towards management, the survey asked what obstacles stood in their way. More than half stated that they simply lacked the qualifications and experience at the present time. About 23 per cent said that difficulty in balancing their personal obligations and professional desires stood in the way. Finally, about 22 per cent of aspiring female leaders thought that their company was not supporting their efforts to grow.

We also wanted to know if women thought they were being given a fair shake at the promotion opportunities that were available. About 62 per cent of women believe they have the same opportunities for promotion as a man in a comparable position, while about 37 per cent thought that men had greater opportunities for career advancement. Less than one per cent of women responded that preferential hiring policies gave them a unique advantage over their male colleagues.

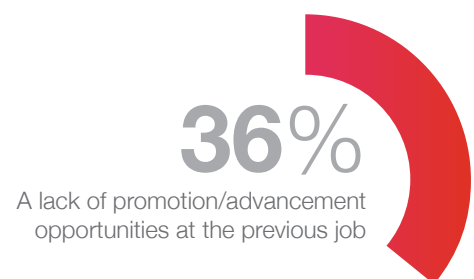
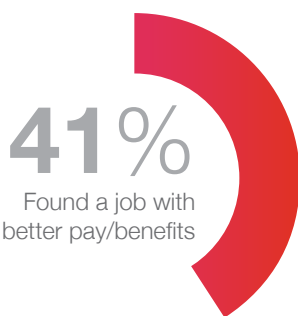
Tenaris

As a leader in advanced manufacturing, Tenaris is committed to a diverse workforce. In 2008, we implemented a gender diversity program that later expanded to include all types of diversity. Its intent is to raise awareness, share experiences and increase education of diversity issues. It also includes a flexible work program and ambassador program to support the recruitment and retention of a more diverse workforce. These initiatives have led to infrastructure upgrades in production centres and offices to improve working conditions for female employees as well as courses on how to manage and lead culturally diverse teams available through Tenaris University.

Tenaris is also committed to improving the level of technical education in the communities where we operate to expand access to a more diverse talent pool. In Canada, we provide long-term investments in educational opportunities for local youth to prepare them for technical careers in advanced manufacturing. Our ongoing investments include support for science fairs, robotics programs and post-secondary scholarships as well as the technical education centre and Tenaris Robotics Lab at Sault College. Included in our post-secondary scholarships is the sponsorship of the Tenaris Female Athletic Awards in Sault Ste. Marie.

In 2017 we are proud of the impact our investments are having in the community. Female students from Sault Ste. Marie achieved national recognition in science fair and robotics competitions, and we awarded post-secondary scholarships to 30 females (>50 per cent of the total awarded). Our employees volunteer in the community, and serve as role models and mentors for young females to encourage their interest in STEM fields.

WHY DO WOMEN QUIT MANUFACTURING?



Two thirds of women
aspire to management/leadership positions BUT

37% see a promotion bias favouring men

one in five thinks
the company is not supporting their efforts

61% say that women are under-represented
in management positions

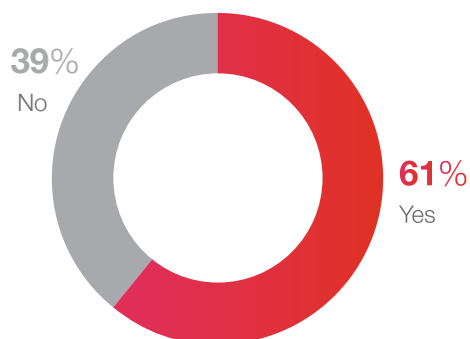
On a related note, women see a distinct lack of female representation in manufacturing leadership roles. About 61 per cent felt that women were under-represented in their company's management structure, while about 39 per cent thought that women were fairly represented or over-represented.

The silver lining is that most women believe that the degree of female under-representation in leadership positions is not out of line with the broader Canadian average. About 38 per cent of total respondents believe that, while under-represented, female leaders were about as common in manufacturing as they were in other industries.

Women's networking groups are sometimes offered as a way to encourage women to remain and advance their careers in manufacturing. These groups allow women at the early or middle stages of their careers to find and learn from female mentors and role models in senior positions.

However, survey respondents were not sold on the value of these networking groups. Less than half of respondents even had access to such groups – whether formal or informal. Of those that did, 90 per cent said that they had, at most, limited involvement; and less than half thought that networking groups offered value.

ARE WOMEN UNDER-REPRESENTED IN YOUR COMPANY'S MANAGEMENT TEAM?



Work-life balance challenges

While women expressed general satisfaction with their manufacturing careers, they also pointed to some specific challenges related to the nature of manufacturing work itself. Specifically, a high percentage of respondents – about 27 per cent – stated that a lack of work-life balance was a major challenge. Only the presence of a male-centric work culture scored higher in terms of what women like least about working in manufacturing. In fact, for women who would not explicitly encourage their daughters to pursue a career in the sector, work-life balance issues topped the list of reasons why.

WORK-LIFE BALANCE ISSUES KEEP WOMEN FROM CONSIDERING MANUFACTURING JOBS

27% of women in manufacturing say that a lack of work-life balance is a problem today

41% of women have quit a manufacturing job for this reason

26% believe that they cannot meet family obligations without damaging their career

A related issue is flexibility to meet family commitments. More than a quarter of women said that they are unable to meet those commitments without it affecting their future career advancement. A similar share said that they would not encourage their daughters to pursue a manufacturing career for that same reason.

These parallel issues are also a problem when it comes to female worker retention. More than 40 per cent of women say that they, or other women they know, have quit a manufacturing job over work-life balance problems and 30 per cent quit because they were seeking greater flexibility.

Work-life balance is especially a concern for younger workers. Women under 35 were more likely than others to see unavoidable family commitments as potentially hurting their career advancement opportunities.

Rockwell Automation

Rockwell Automation is the world's largest company dedicated to industrial automation and information. Headquartered in Milwaukee, Wisconsin, Rockwell Automation employs approximately 22,000 people serving customers in more than 80 countries.

Built on a culture of innovation, we deliver technology and solutions that make our customers more productive, our world more sustainable, and our employees proud. We are committed to supporting smart, safe and sustainable manufacturing around the world while honouring our social responsibility and sustainability principles. At our core, we pledge a corporate responsibility of driving a culture shift that advances diversity and inclusion in the workplace. One example of our dedication is being selected as the winner of the 2017 Catalyst Award for the transformation and results of our Culture of Inclusion journey. The Catalyst Award honors innovative organizational approaches that address the recruitment, development and advancement of women and have led to proven, measurable results. Founded in 1962, Catalyst is the leading nonprofit organization committed to accelerating progress for women through workplace inclusion. For more information, we encourage you to visit their website.

Visit the Rockwell Automation website to learn how we are building on our legacy of technology leadership. Discover why our brands are recognized globally for quality, innovation and performance – created in a workplace where all employees can and want to do their best work every day.

General perception of manufacturing

One of the major obstacles manufacturers face in trying to attract workers is that manufacturing activity is perceived as being a dark, dirty and dangerous. This stigma – no matter how inaccurate or outdated it may be – was reinforced by our survey findings. Only about 39 per cent of women said that their female friends and family had a very positive or somewhat positive view of manufacturing work. By contrast, 53 per cent had a neutral or negative view.

In addition, the survey asked women why they thought there were not more women working in manufacturing businesses. One of the highest responses (43 per cent) was that manufacturing had a reputation as being an undesirable place to work. About the same share of women thought that if more steps were taken to address the negative perception of manufacturing, it would go a long way towards attracting more women to the sector.

MANUFACTURING HAS AN IMAGE PROBLEM

Only **39%** of women say that their female friends have a good impression of manufacturing

43% think other women avoid manufacturing because of its poor reputation

40% think that improving the image of manufacturing would attract more women

Breanne Curran's Story

People are our only business. People Corporation helps organizations prosper by enabling their employees to grow and succeed at every stage of their career. We are a national provider of group benefits, group retirement and human resource services. People Corporation is honoured to share Breanne Curran's story, a woman in manufacturing...

Since I was young, I knew that I wanted to be a machinist. I never imagined how difficult it would be! When I graduated high school I applied to over 20 companies looking to enter the manufacturing industry. I was turned down by all 20 companies. I finally was hired as an apprentice for machining. For 1.5 years I was not allowed to learn or operate machinery, I was cleaning and emptying garbage cans. My male counterparts, however, were given the opportunity. I was at the point of giving up!

To my surprise I was approached by my current employer, ABS Machining Inc. They offered me a "paid" three-year apprenticeship. My research showed that ABS Machining Inc. had state-of-the-art facilities (six in total). They specialized in the machining and fabrication of large, complex components for a number of industries. I won the jackpot!

Myself and three other students/apprentices received one-on-one training for two years. I am in my third year currently, now on the shop floor being mentored by highly-skilled CNC machinists. I am now proficient in a number of CNC controls (Fanuc, Tosnuc, Siemens 840D).

My message to other females looking to enter the trade is to never give up, no matter what obstacles get in the way! Work hard and you will succeed!

A woman with short brown hair, wearing a blue shirt, is smiling and working on electronic components on a workbench. She is using a pair of tweezers to place a small component onto a circuit board. The background shows a factory setting with other workers and equipment.

FEMALE ENROLMENT IN STEM AND SKILLED TRADES NEEDS TO INCREASE

50% of women say that school-aged girls are not encouraged to consider manufacturing as a career option

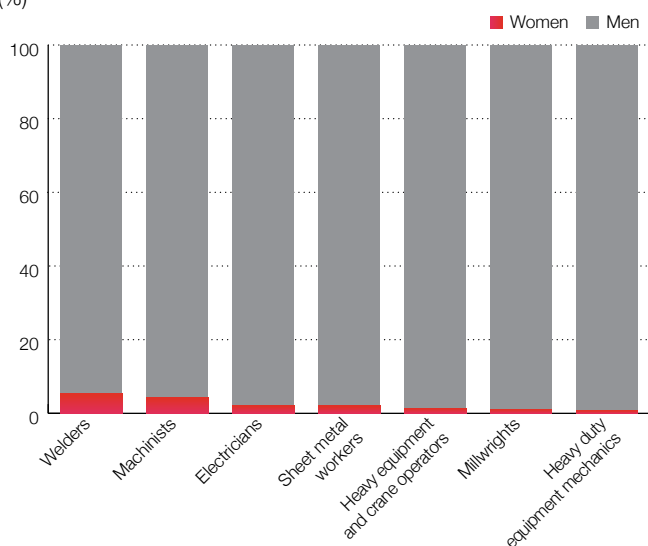
43% say that more effort is needed to recruit girls to STEM and skilled trades programs

Only **14%** say that girls are encouraged to pursue a career in the skilled trades

Education in STEM and the skilled trades

A final issue underpinning the low female representation in manufacturing is that the supply of qualified workers is relatively small. Enrolment and credential statistics show clearly that women are heavily under-represented in the education and training programs that typically lead to production-related manufacturing employment. Survey respondents highlighted this as a major factor behind the lack of women in manufacturing today.

REGISTERED APPRENTICESHIPS/TRADE QUALIFIER CERTIFICATES – 2015 (%)



Data source: Statistics Canada

A full half of those surveyed stated that one of the main reasons there are relatively few women in the manufacturing workplace is that school-aged girls are not encouraged to consider manufacturing as a career option. Moreover, when asked how to attract more women to manufacturing, the top response by a considerable margin was to improve efforts to encourage girls to enroll in STEM fields and skilled trades programs.

That encouragement is clearly lacking today and especially so when it comes to the skilled trades. Less than 14 per cent of those surveyed thought that the K-12 school system encouraged girls to pursue a career in the trades. The results were slightly better for STEM fields; one third of respondents thought that girls were encouraged to choose STEM-related career paths. By contrast, 63 per cent of women thought that the school system did nothing to encourage girls to enter either STEM programs or the skilled trades.

3M

At 3M, the “I’m in. Accelerating Women’s Leadership” initiative has accelerated progress for women leaders in business and STEM (science, technology, engineering and math) in the past five years with global results that include increasing the percentage of women at the director level from 18.2 per cent to 23 per cent; the percentage of women at the vice president level and above grew from 16.7 per cent to 24.2 per cent; the representation of women in technical and lab manager roles jumped from 19.1 per cent to 23.9 per cent; and, the percentage of women manufacturing facility managers grew from 11.4 per cent to 17.4 per cent.

Around the world, women leading 3M subsidiaries increased nearly 10-fold from 2.4 per cent to 22.7 per cent, and women’s representation on the executive team – those reporting to the CEO – increased from 12.5 per cent to 20.0 per cent.

While 3M’s initiative focuses on women in the management pipeline and across the company, it is part of a broader “I’m in.” organizational approach to engage and develop all 3M people worldwide. Programs to support overall inclusion, like the network of 84 women’s leadership chapters that align activities with global priorities championed by the executive steering team, and the formal leadership development programs like, 3M Leadership Way emphasizes continuous learning.

Encouraging everyone to have a formal development plan that includes stretch projects and opportunities to take on different roles, training and coaching as well as the FlexAbility program that supports a flexible workplace culture, all contribute to 3M’s culture where all individuals can succeed.

The Path Forward – Attracting more women to manufacturing occupations

Women already working in manufacturing know firsthand the challenges, opportunities, rewards and risks offered by that career path. As noted earlier, less than one in five survey respondents would explicitly choose a different career path if they could do it all over again.

If women currently in manufacturing are generally happy with their choice, but only a fraction of the female workforce chooses a job in that sector, what are the obstacles to attracting more women to manufacturing? The discussion above highlights a number of specific challenges: the generally poor reputation of manufacturing as an industry; low female enrolment in skilled trades and STEM fields; sexism and a male-centric work culture; a lack of promotion and advancement opportunities; and challenges in achieving a good work-life balance.

However, our survey results also point to a clear path forward to addressing these concerns. Respondents identified four action areas and five Strategic Imperatives within those areas. Making progress on those Strategic Imperatives is the key to closing the gender gap in manufacturing. The result would be a host of new challenges and rewarding careers for women, as well as a badly-needed influx of skilled workers into the manufacturing labour pool.

Women need to see other women succeed

In the same way that Olympic champions inspire children and young adults to work hard and achieve their goals, female leaders in manufacturing inspire other women to follow in their footsteps. Nearly 37 per cent of survey respondents said that one of the most effective ways to attract more women to manufacturing was for businesses to have more visible female role models.

Young women in particular are looking for inspiration and leadership. Women under 35 were considerably more likely to say that female role models would help attract more girls to manufacturing professions.

Unfortunately, there are not enough such role models at present. As noted earlier, more than 60 per cent of survey respondents stated that women were under-represented in their company's management team.

However, women were also clear that appointments to management, executive and other leadership positions must be merit-based. Less than 10 per cent of women surveyed were supportive of a quota system that would see 40 per cent of executive and corporate board positions reserved for female leaders.

STRATEGIC IMPERATIVE: More high-profile female role models are needed to inspire and encourage young women to pursue a career in manufacturing.

Stubborn misconceptions about manufacturing need to be addressed

Manufacturing has long struggled with a reputation for dirty, dangerous and monotonous assembly-line work. This reputation persists in spite of the fact that the modern manufacturing facility bears little resemblance to its counterpart of even just 20 years ago. Those lingering misconceptions are a major factor behind the lack of women in manufacturing. Just under 40 per cent of women believe that addressing the negative perception of manufacturing would have a major impact on improving female representation in the sector.

While work clearly needs to be done to restore the reputation of manufacturing in general, the fact remains that people seldom choose an education or a career path based on an industry; they choose it based on a specific occupation. An individual registered in a welding program wants to work as a welder. Someone studying accounting wants to work as an accountant. The industry into which they fall is, at most, a secondary concern.

As such, efforts to raise awareness about the benefits of a manufacturing career need to focus on what women find attractive: interesting and challenging work. Efforts to recruit women into manufacturing, therefore, need to focus on the jobs within manufacturing – especially the skilled trades and STEM professions. Manufacturing simply offers them a vehicle through which they can find rewarding work in their chosen field.

STRATEGIC IMPERATIVE: Young women need more exposure to modern manufacturing facilities to gain a more accurate perspective on the career opportunities available to them. Those efforts need to focus on occupations within manufacturing rather than on the sector itself.

Girls need to be encouraged to enter skilled trades and STEM-related education programs

According to survey results, the most important factor behind the lack of women in manufacturing jobs is that girls are not encouraged to pursue the education and training needed for those positions. Young girls are subtly (or not-so-subtly) pushed into different academic fields and never have the opportunity to explore manufacturing-related occupations.

The result is that there are few women available to work in production-related manufacturing jobs. Businesses involved in this research project stated that they are actively looking to recruit more women to their company, but find that few ever even apply.

This labour supply problem is evident in long-term youth employment trends in manufacturing. In the mid-1970s, there were nearly 138,000 women aged 15-24 working in manufacturing across Canada, representing 7.4 per cent of the sector's workforce. Today, there are fewer than 36,000 young women in manufacturing jobs – only 2.1 per cent of the total labour force.

This suggests that short-term efforts to recruit more women to manufacturing are likely to fail. There are simply too few women with the necessary credentials to make a meaningful impact. What is needed, rather, is to boost efforts to improve female enrolment in relevant education and training programs. Only by first increasing the labour supply can recruitment efforts be successful.

Female survey respondents agree. Nearly 43 per cent of women stated that improving efforts to recruit more girls to STEM and skilled trades programs was critical to closing the gender gap on the manufacturing shop floor.

STRATEGIC IMPERATIVE: Efforts to encourage young girls to pursue an education in STEM fields and/or the skilled trades need to be improved.

Businesses need to create a more inclusive workplace culture

Attracting more girls to STEM fields and the skilled trades, addressing the poor reputation of manufacturing, and providing more visible female role models can all help close the gender gap in manufacturing – especially in production-related fields where that gap is most acute. However, these initiatives are doomed to fail unless steps are also taken to create a more inclusive workplace culture.

Female survey respondents pointed to two specific problems: persistent issues of sexism and gender imbalance; and their desire for better work-life balance, including greater flexibility to meet family commitments.

by addressing sexism in the workplace

Sexism in the manufacturing workplace is a problem. Women stated that what they like least about manufacturing work is the male-centric culture. About 31 per cent of women see a wage gap between men and women working at comparable jobs and with comparable levels of experience. A full 46 per cent feel that they must work harder than men to prove themselves and 37 per cent think men have greater opportunities for career advancement.

Moreover, the current gender imbalance may be self-perpetuating. Women who might otherwise be interested in a skilled trades position, for example, could be deterred from pursuing that field because they recognize that they would be walking into a male-dominated workplace. Indeed, 30 per cent of women surveyed said that the prevailing gender imbalance deters women from entering manufacturing-related professions.

Part of the challenge is that men are not necessarily aware of the problem. Survey results show a wide perception gap on issues like pay equity, promotion opportunities and whether or not men and women are treated fairly and equally in the workplace. Men tend not to see a problem in these areas while women clearly do.

STRATEGIC IMPERATIVE: Businesses need to hear the concerns of women and take steps to make their workplace culture more inclusive.

and by being more considerate of work-life balance and family flexibility issues

Finally, to attract more women to manufacturing, businesses need to explore ways to improve working conditions. When asked what they liked least about working in manufacturing, more than 29 per cent of women in production jobs pointed to a lack of work-life balance – the second highest response, behind only the male-centric work culture.

A related issue is flexibility to meet family commitments. Over 30 per cent of women said that they are unable to meet those commitments without it affecting their future career advancement. Nearly 40 per cent said that they would not encourage their daughters to pursue a manufacturing career for that same reason.

One of the main factors underpinning these results is the shift work associated with many manufacturing plants. Many women in a caregiving role have a difficult time working shifts outside of regular daytime hours because of their family obligations. According to one large manufacturer, women are 80 per cent more likely to self-select themselves out of applying for a job as soon as they realize that shift work is required.

Adding to the challenge is that some government policies are effectively encouraging businesses to shift more of their production activity to non-traditional hours. This is particularly the case in Ontario, where soaring electricity prices are driving manufacturers to shift their production activity to unconventional hours to avoid paying peak-demand prices for their hydro. This has the unintended consequence of raising a barrier to entry for women in manufacturing.

There is no easy solution to the shift work problem. To be profitable and keep their doors open, many manufacturers need to run multiple shifts throughout the day. Unless there are enough volunteers at every position to fill those jobs, there will always be a need for workers to come in outside normal business hours.

However, resolving the problem of work-life balance could yield significant dividends. A study by PWC asked women at various stages of their careers about the factors they thought made an organization an attractive employer. Flexible work arrangements and a good work-life balance was the top response for all women except new career starters, for whom career progression was more valuable.¹

STRATEGIC IMPERATIVE: Businesses need to find creative ways to improve work-life balance for their employees and to accommodate both women and men who have unavoidable family obligations.

Winning the Fight for Female Talent. PWC. March 2017. Available at: <https://www.pwc.com/gx/en/about/diversity/iwd/iwd-female-talent-report-web.pdf>

Conclusion and Next Steps

Women are under-represented in the manufacturing workforce. They account for just 28 per cent of manufacturing jobs and their representation in some production-related fields is in the single digits. Moreover, the problem is getting worse, not better. Youth employment trends indicate that fewer and fewer young women are choosing a career in manufacturing.

This is a problem both for women and for manufacturing businesses. Women are losing out on rewarding career opportunities, while businesses continue to struggle with chronic labour and skills shortages.

This report offers the first step towards a long-term solution to those related problems. Through our survey of women in manufacturing, Canadian Manufacturers & Exporters has identified five Strategic Imperatives – areas where action is needed in order to improve female representation in manufacturing. These are:

- 1. More high-profile female role models are needed to inspire and encourage young women to pursue a career in manufacturing.**
- 2. Young women need more exposure to modern manufacturing facilities to gain a more accurate perspective on the career opportunities available to them. Those efforts need to focus on occupations within manufacturing rather than on the sector itself.**
- 3. Efforts to encourage young girls to pursue an education in STEM fields and/or the skilled trades need to be improved.**
- 4. Businesses need to hear the concerns of women and take steps to make their workplace culture more inclusive.**
- 5. Businesses need to find creative ways to improve work-life balance for their employees and to accommodate both women and men who have unavoidable family obligations.**

The next, and far more important, step is to develop solutions around these strategic directions. In the coming months, CME will be actively engaging with businesses, governments and other stakeholders to do just that.

However, progress on many these Strategic Imperatives will not come from policy solutions, but from business action. What, then, can businesses do in the short term to attract more women?

First, they can start by considering their own workplace culture and asking hard questions about inclusivity. Women in manufacturing have clear opinions on the frustrations and challenges associated with working in a male-dominated environment. Their perspectives need to be heard, considered and acted upon. For their part, men need to become more involved in these issues and become part of the solution.

Second, businesses can share their success stories. Whether promoting the accomplishments of their female employees, or their successes in recruiting women, these best practices need to be communicated.

Third, research suggests that women are attracted to organizations with a positive reputation or a mission that aligns with their personal values. Top-performing young women (and men) are more likely to want to work for companies they believe are focusing on societal or mission-driven problems. If companies can better communicate their values and how their products are impacting peoples' lives in a positive way, they will attract more top female talent.

Finally, businesses can look for opportunities to become more involved in “open doors” events and school programs that bring young girls and boys into a manufacturing facility. Exposure to the kinds of work available can be the most effective recruitment tool of all.

These short-term steps will complement our longer-term efforts. CME looks forward to working with our partners to improve female representation in manufacturing and the widespread benefits to all Canadians that will result.



Untapped Potential

APPENDIX

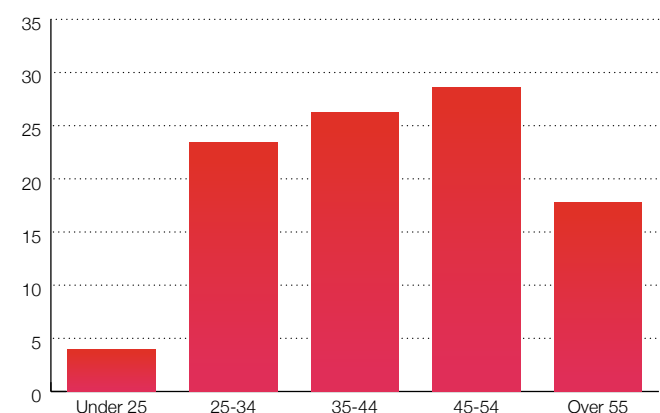
Attracting and engaging women
in Canadian manufacturing

Respondent profile

What is your age range?

Survey respondents were evenly mixed across the range of age categories. Slightly more than a quarter of (female) respondents were under 35 years of age. A similar share came from the 35-44 and 45-54 age ranges. About 18 per cent of respondents were over 55 years of age.

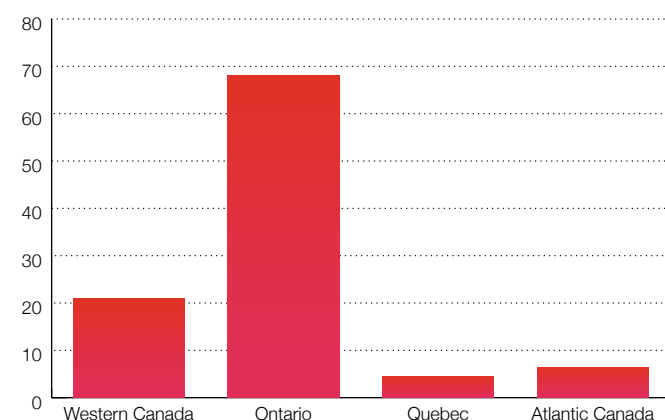
WHAT IS YOUR AGE RANGE?
(female respondents, in %)



Where do you live/work?

A strong majority of responses to the survey (about 68 per cent) came from Ontario – Canada's largest and most important manufacturing base. About one in five female respondents came from Western Canada. About 11 per cent came from Quebec and Atlantic Canada.

WHERE DO YOU LIVE/WORK?
(female respondents, in %)



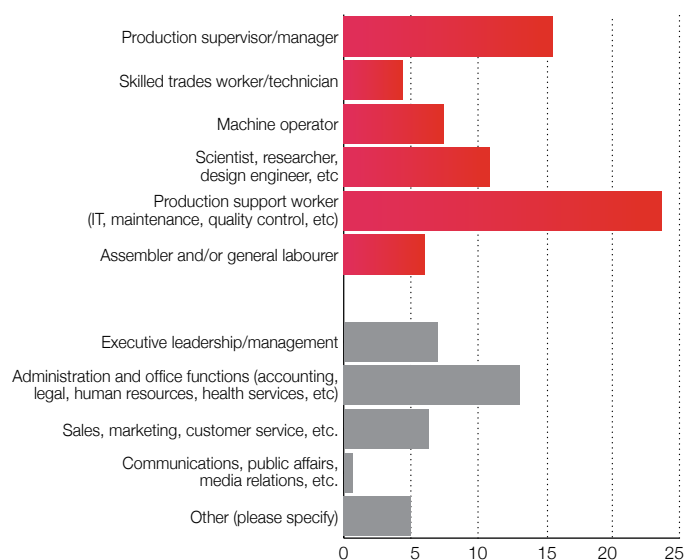
Which of the following best describes your work?

Manufacturing businesses employ people in a wide range of occupations. About two thirds of female respondents were in some capacity involved in the physical production of goods while the remaining one third provided a range of leadership and office-based functions.

Among those who were part of their company's manufacturing workforce, about 38 per cent identified themselves as production support workers; about 23 per cent worked in a supervisory or management role; and about 16 per cent were scientists, engineers or other STEM-related workers.

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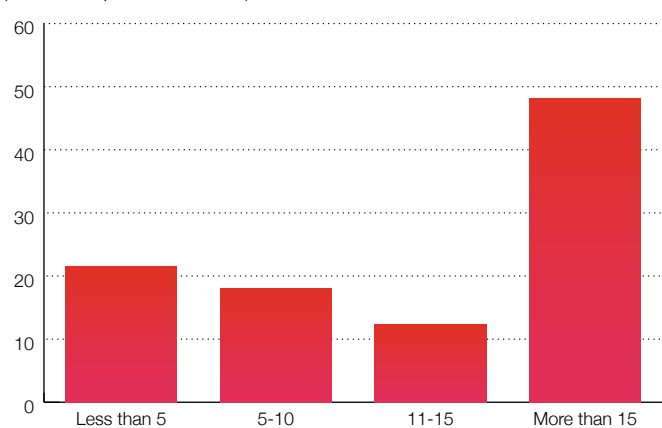
WHICH OF THE FOLLOWING BEST DESCRIBES YOUR WORK?
(female respondents, in %)



How many years' experience do you have working in a manufacturing business?

The survey captured information from women with a range of experience working in manufacturing businesses. About 48 per cent had more than 15 years of experience, while about 22 per cent had been in manufacturing for less than five years.

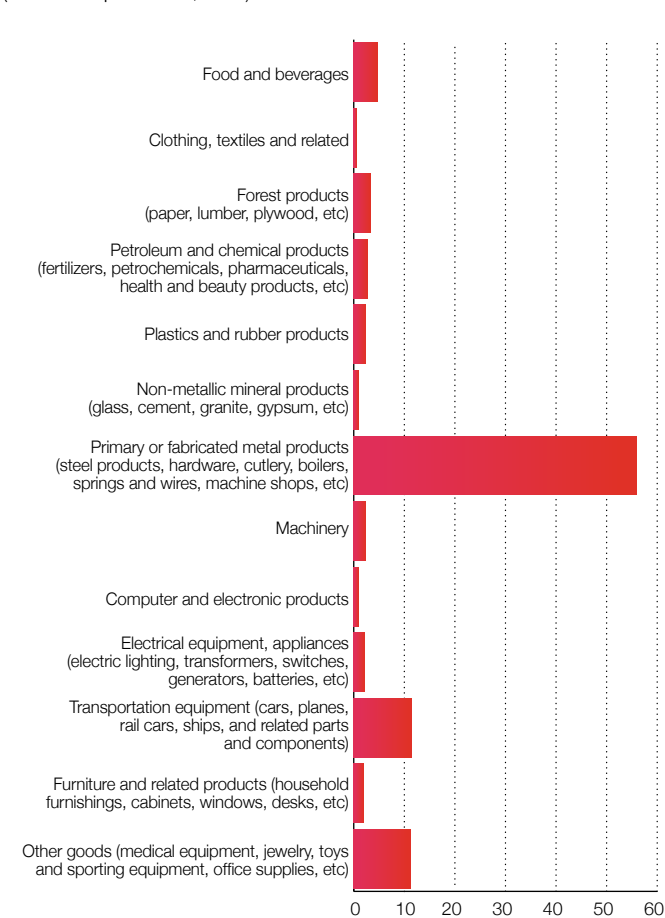
HOW MANY YEARS OF EXPERIENCE DO YOU HAVE WORKING IN A MANUFACTURING BUSINESS?
(female respondents, in %)



If your company is a manufacturer, which of the following best describes what it produces?

Every major industrial category was represented in the survey. However, the majority of respondents – about 56 per cent of the total – work in businesses that produce primary or fabricated metal products. About 11 per cent work in auto, aerospace or other transportation-related industries. The remainder were spread across other industrial sectors.

IF YOUR COMPANY IS A MANUFACTURER, WHICH OF THE FOLLOWING BEST DESCRIBES WHAT IT PRODUCES?
(female respondents, in %)

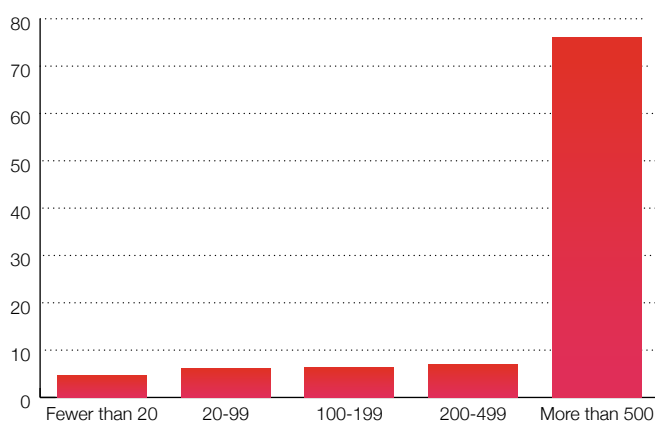


About how many people work at your company across Canada?

Most respondents work in large businesses – something to be expected, given the outsized number of people they employ. About 76 per cent of women who filled out the survey work in companies with at least 500 employees. Conversely, about 11 per cent worked for smaller companies – those with fewer than 100 employees.

ABOUT HOW MANY PEOPLE WORK AT YOUR COMPANY ACROSS CANADA?

(female respondents, in %)



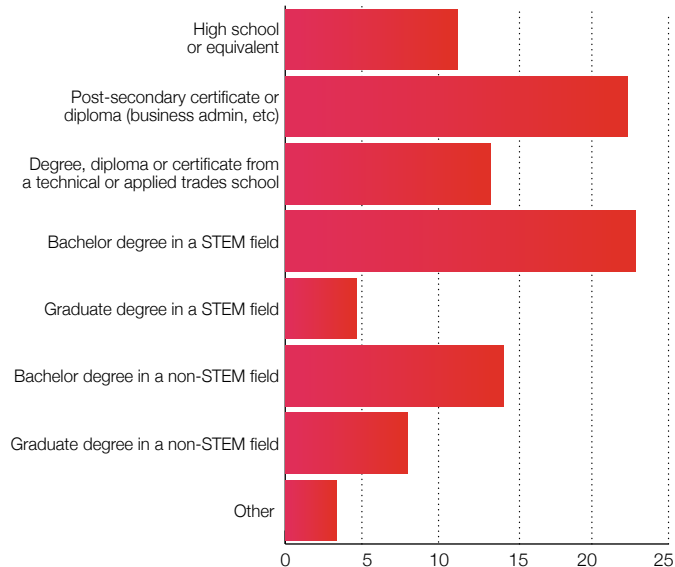
Which of the following best describes your level of education?

The survey was filled in by women with a wide range of educational backgrounds. Close to 30 per cent had a university degree in a STEM field and about 15 per cent had qualifications from a technical or applied trades school. A little less than a quarter had a university degree in a non-STEM field. For about eight per cent, the highest level of education they achieved was high school or some equivalent.

Of particular note, close to five per cent of respondents chose the “other” category in this survey. Most of those individuals had educational qualifications in two areas: both a university degree as well as a certificate, diploma or degree from a technical or trade school.

WHICH OF THE FOLLOWING BEST DESCRIBES YOUR LEVEL OF EDUCATION?

(female respondents, in %)



Women's experiences in manufacturing

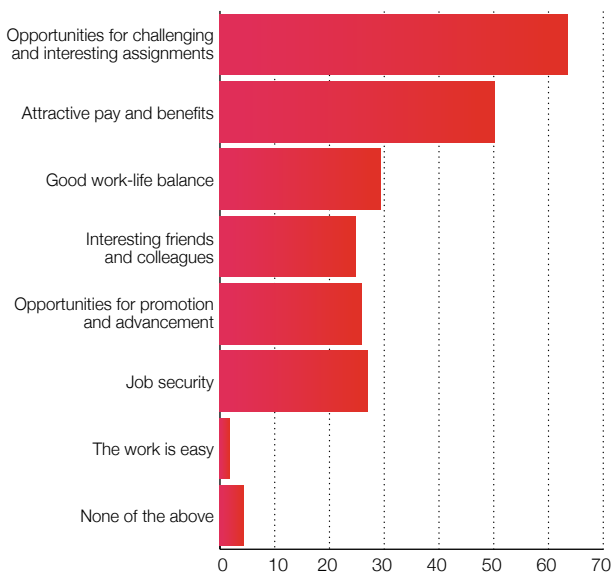
What do you like most about working in a manufacturing business (select up to three)?

Women enjoy the challenging and stimulating work environment they find in manufacturing jobs. More than 63 per cent said that those challenges are the best part of their work. About half of all women also pointed to the attractive compensation package they receive as a reward for their labour.

Production-related workers were slightly more likely to cite pay and benefits as an attractive aspect of their career, while non-manufacturing workers were more likely to point to challenging and interesting work. Meanwhile, women under 35 were more likely to value friends, colleagues and promotion opportunities.

WHAT DO YOU LIKE MOST ABOUT WORKING IN A MANUFACTURING BUSINESS?

(female respondents, in %)



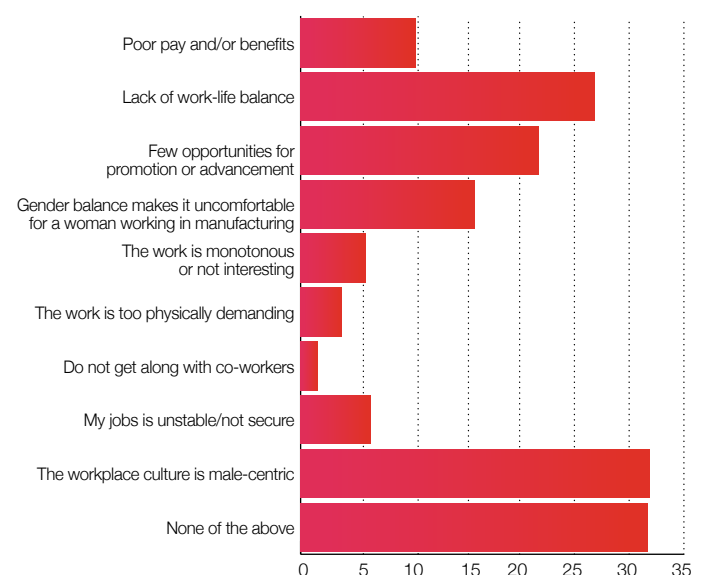
What do you like least about working in a manufacturing business (select up to three)?

No job is without drawbacks. When asked what they liked least about their work in manufacturing, the most common response from women was the male-centric workplace culture (32 per cent of respondents). A significant share also pointed to a lack of work-life balance (27 per cent) and limited opportunities for promotion (22 per cent). At the same time, a large proportion of women said that none of the response options applied.

Women in production-related fields were more likely to cite a lack of work-life balance, as well as limited opportunities for career advancement as problems. Meanwhile, non-manufacturing workers were more likely to point to the gender imbalance as a concern. Finally, women under 35 were more likely to see low pay and benefits as a problem.

WHAT DO YOU LIKE LEAST ABOUT WORKING IN A MANUFACTURING BUSINESS?

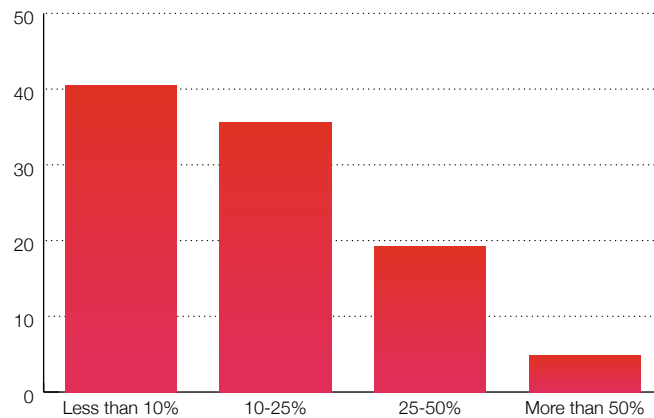
(female respondents, in %)



Approximately what share of your company's manufacturing workforce (production workers, floor managers, technicians, machine operators, STEM workers, etc) is made up of women?

Survey results confirm official data; women are heavily under-represented in production-related fields. More than three quarters of respondents stated that women make up less than 25 per cent of their manufacturing workforce, including 40 per cent who said that women hold less than one in ten production-related jobs. Less than five per cent of respondents said that women make up more than half of their company's production workforce.

APPROXIMATELY WHAT SHARE OF YOUR COMPANY'S MANUFACTURING WORKFORCE IS MADE UP OF WOMEN?
(female respondents, in %)

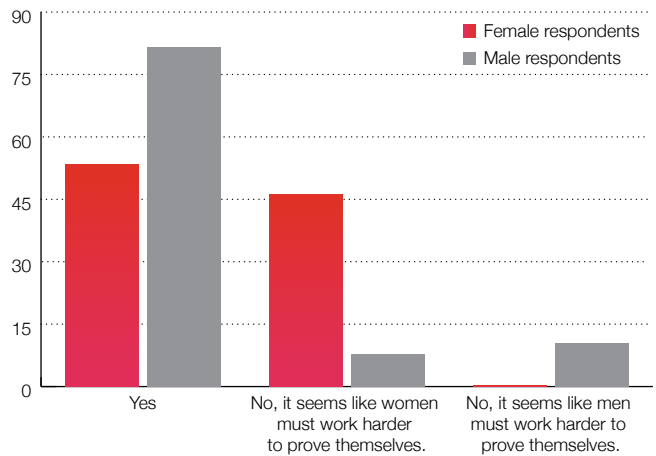


Do you believe that men and women are treated fairly and equally in your workplace?

Women were divided as to whether or not they were treated fairly and equally in the workplace. A little more than half said that they were, in fact, treated the same as men. Meanwhile, about 46 per cent said that they need to work harder to prove themselves. There was very little difference in responses between older and younger women, or between production- and non-production workers.

Although the survey was aimed at women, 183 men filled it in as well. While not necessarily a representative sample, these male respondents offer an interesting perspective on some of the survey questions. In this case, men do not believe that women are being treated unfairly. A full 82 per cent said that workplace treatment was equal between the sexes.

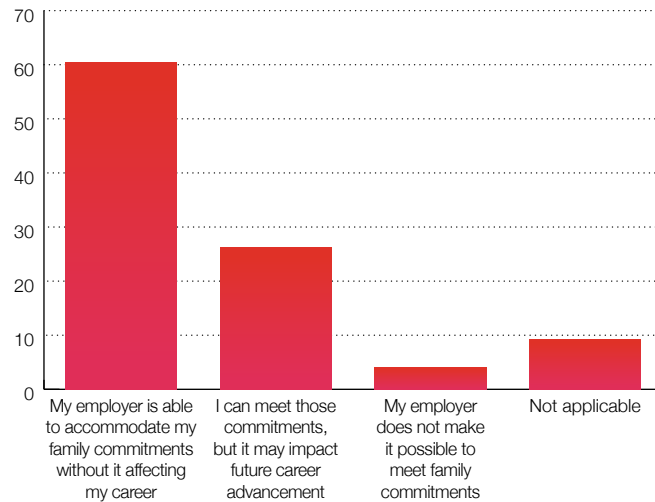
DO YOU BELIEVE THAT MEN AND WOMEN ARE TREATED FAIRLY AND EQUALLY IN YOUR WORKPLACE?
(% of respondents)



How flexible is your employer when it comes to allowing you to meet family commitments?

Women expressed some concern that family obligations such as child care could impact their career advancement in manufacturing. While about 60 per cent said that their employer was accommodating, more than a quarter thought there could be negative consequences. This view was more common for younger female workers. A small share (about four per cent) of women, mostly in production-related jobs, said that they were completely unable to meet family commitments.

HOW FLEXIBLE IS YOUR EMPLOYER WHEN IT COMES TO ALLOWING YOU TO MEET FAMILY COMMITMENTS?
(female respondents, in %)



In your experience, do you see a wage gap in your company between men and women working at similar jobs with similar degrees of experience?

Most women in manufacturing – about 69 per cent – do not see a wage gap between themselves and their male peers working at comparable jobs with comparable seniority. However, a significant share – about 31 per cent of women – disagreed. Women in production jobs were less likely to see a wage gap compared to their counterparts in office-related functions. Women under 35 were also more likely to say that wages were equal.

Once again, the men who filled in the survey were far less likely to acknowledge that there might be a wage gap issue. More than 93 per cent said that wages were equal at comparable positions.

IN YOUR EXPERIENCE, DO YOU SEE A WAGE GAP IN YOUR COMPANY BETWEEN MEN AND WOMEN WORKING AT SIMILAR JOBS WITH SIMILAR DEGREES OF EXPERIENCE?
(% of respondents)

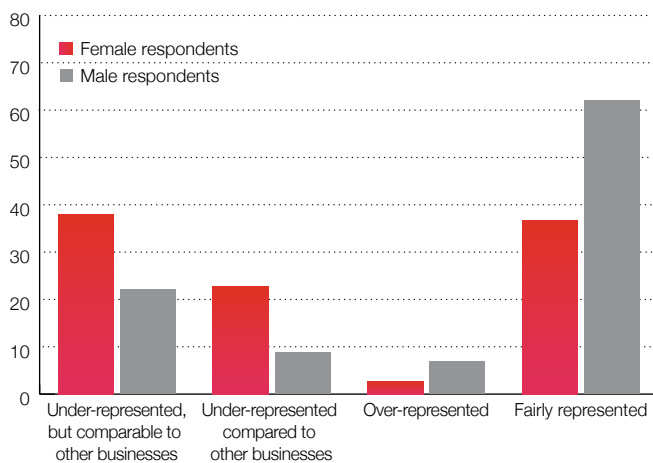


To what extent are women represented in your company's management team?

Most female respondents – about 61 per cent – think that women are underrepresented in management positions. However, most of those respondents said that, while low, female representation is roughly in line with other businesses and other industries. Meanwhile, about 37 per cent said that women were fairly represented.

Once again, there were significant discrepancies in perception between men and women. A full 62 per cent of men said that women were fairly represented in management positions and only nine per cent said that women were under-represented compared to other businesses.

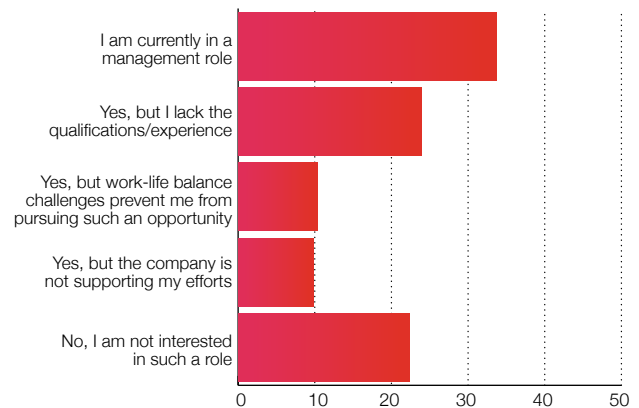
TO WHAT EXTENT ARE WOMEN REPRESENTED IN YOUR COMPANY'S MANAGEMENT TEAM? (female respondents, in %)



Do you aspire to a management or leadership role in your company?

Women are looking to advance and grow in their company. While about one third of respondents are already in leadership positions, a full two thirds of those who are not already so aspire to those positions. About 24 per cent of women think they currently lack the education and/or experience for such a role, while about 10 per cent see work-life balance challenges as an obstacle to career growth. The same share believe their company is not supporting their career aspirations.

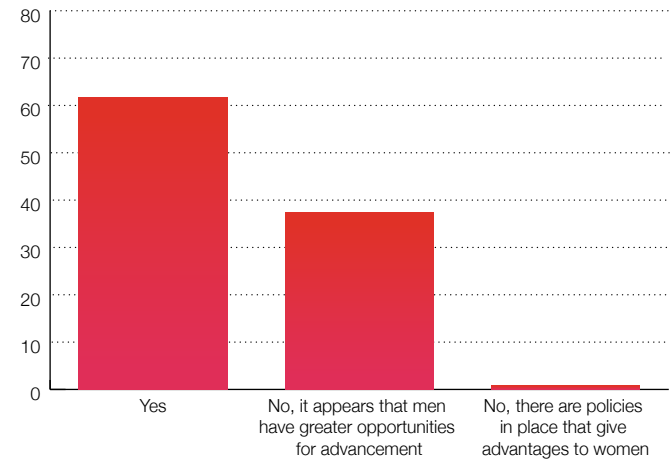
DO YOU ASPIRE TO A MANAGEMENT OR LEADERSHIP ROLE IN YOUR COMPANY? (female respondents, in %)



Do you believe you have the same opportunities for promotion as a man working in your field?

While there are obstacles as described above, most women think that they have a fair chance at future promotion opportunities. About 62 per cent said that they have the same opportunities as a man in their field. However, a full 37 per cent believe that gender bias continues to play a role in promotion opportunities. This view was slightly more common for women in production-related jobs.

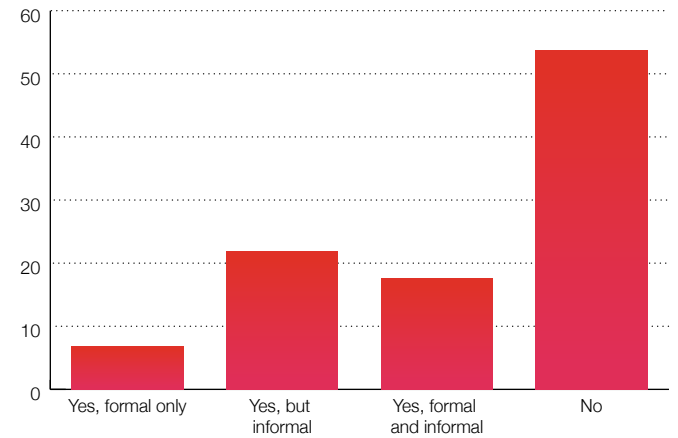
DO YOU BELIEVE YOU HAVE THE SAME OPPORTUNITIES FOR PROMOTION AS A MAN WORKING IN YOUR FIELD?
(female respondents, in %)



Are there women's networking groups within your company?

Women's networking groups represent an opportunity for women to gain access to female mentors, career advice and assistance with workplace challenges. Unfortunately, not many women have access to this resource. Less than a quarter of female respondents said they had formal networking groups within their company. More than half had no such resource available to them.

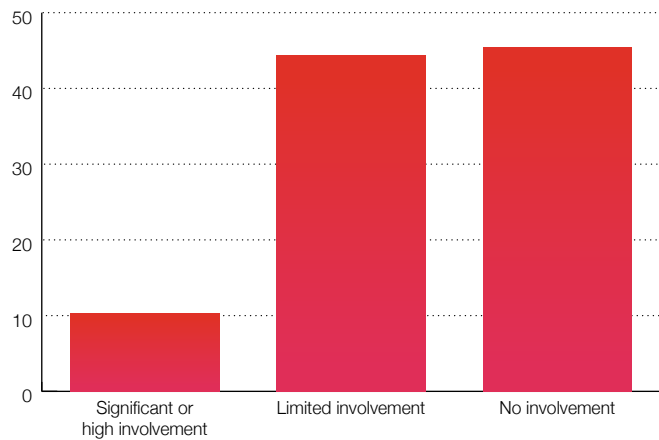
ARE THERE WOMEN'S NETWORKING GROUPS WITHIN YOUR COMPANY?
(female respondents, in %)



To what extent do you participate in women's networking groups inside or outside your company?

Women who had access to networking groups were asked about their level of involvement in those groups. Survey results suggest that most women choose not to get involved. Only a small percentage stated that they were active participants, about 44 per cent said that their involvement was limited, while 46 per cent were not involved in those groups at all.

TO WHAT EXTENT DO YOU PARTICIPATE IN WOMEN'S NETWORKING GROUPS INSIDE OR OUTSIDE YOUR COMPANY?
(female respondents, in %)



Have these groups been valuable to you, whether personally or professionally?

Women were evenly split on the value of women's networking groups. Of those who participated in those groups, half said that their experience had been personally or professionally valuable, while about the same share thought that the networking groups offered no value to them.

HAVE THESE GROUPS BEEN VALUABLE TO YOU, WHETHER PERSONALLY OR PROFESSIONALLY?
(female respondents, in %)



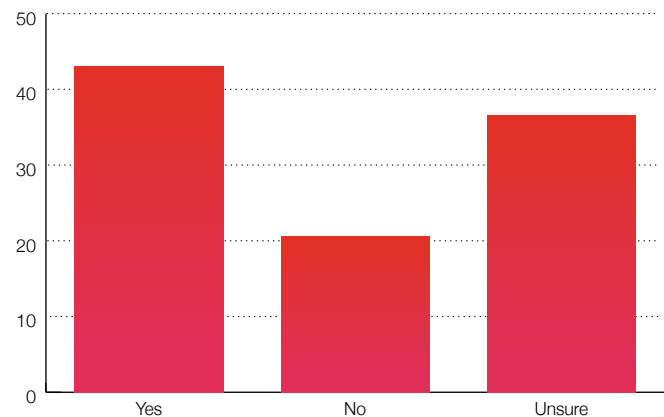
Women’s views about careers in manufacturing

If you were to restart your career today, would you choose to work in manufacturing?

A plurality of women would actively choose to work in manufacturing if they could restart their careers all over again. Only about 20 per cent explicitly stated that they would not choose manufacturing, while about 37 per cent suggested that they would keep their options open. Women under 35 were slightly more likely to say that they would remain in manufacturing.

IF YOU WERE TO RESTART YOUR CAREER TODAY, WOULD YOU CHOOSE TO WORK IN MANUFACTURING?

(female respondents, in %)

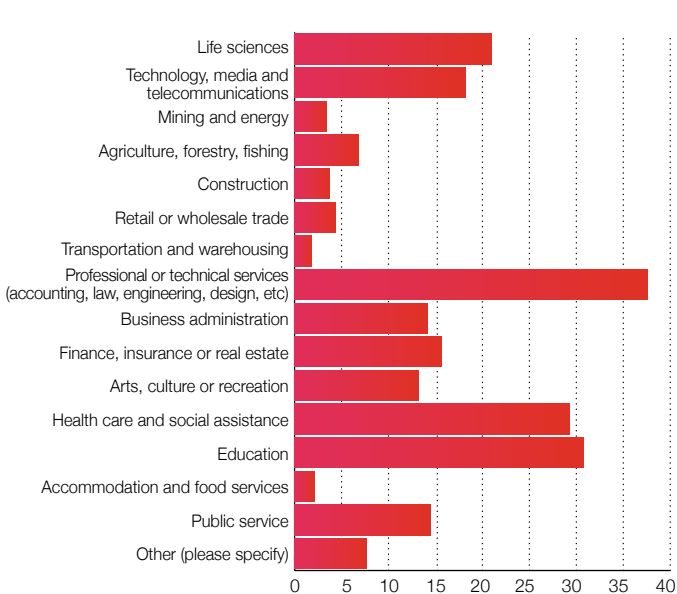


Where, instead of manufacturing, would you choose to work? (select up to three)

Women who responded “no” or “unsure” to the previous question were asked a supplemental question about the industries in which they would consider working, besides manufacturing. Three answers stood above the rest: nearly 38 per cent of women said they would consider a job in professional, scientific or technical services; 31 per cent chose education; and 29 per cent picked health care and social services.

WHERE, INSTEAD OF MANUFACTURING, WOULD YOU CHOOSE TO WORK?

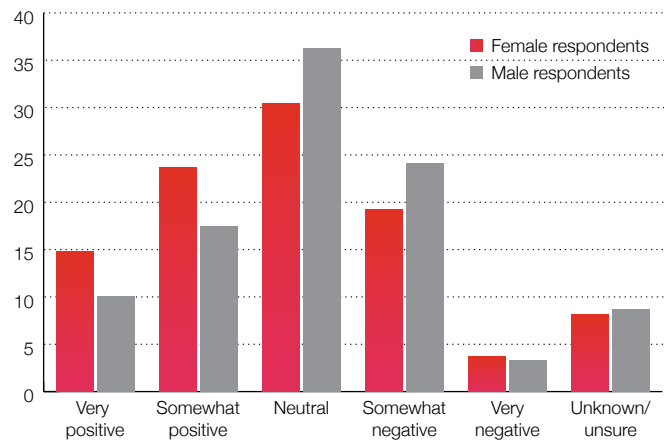
(female respondents, in %)



Generally speaking, do your female friends and family have a positive or negative view of manufacturing as a career option?

Women are divided when it comes to their perception of manufacturing as a career option. About 39 per cent stated that their female friends and family have a positive impression of the sector. Meanwhile, about 30 per cent were neutral and 23 per cent had a negative impression. Women in production-related fields tended to be more decisive, with a higher share of positive and negative responses and fewer neutral replies. Younger women tended to skew slightly more to the negative. At the same time, male respondents appear to think that women have a less positive impression of manufacturing.

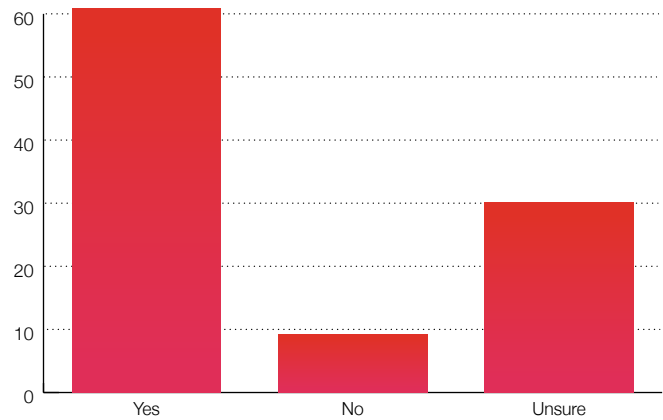
GENERALLY SPEAKING, DO YOUR FEMALE FRIENDS AND FAMILY HAVE A POSITIVE OR NEGATIVE VIEW OF MANUFACTURING AS A CAREER OPTION?
(in %)



Do you think that if women had more exposure to manufacturing work, they would be more likely to consider a career in that sector?

Female respondents tend to think that if other women were able to see what was actually involved in production-related manufacturing work, they would be more likely to consider a career in a related field. A full 61 per cent held this view. Less than 10 per cent of women thought that more exposure to manufacturing work would actually deter female participation.

DO YOU THINK THAT IF WOMEN HAD MORE EXPOSURE TO MANUFACTURING WORK, THEY WOULD BE MORE LIKELY TO CONSIDER A CAREER IN THAT SECTOR?
(female respondents, in %)

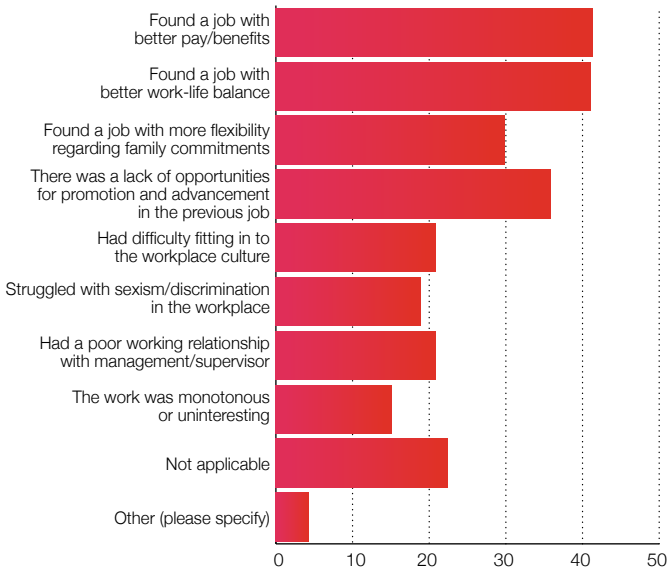


For you or women you know who have quit a manufacturing job, what were the reasons you/they left? (select all that apply)

Women tend to leave manufacturing jobs because they find alternatives that pay better, offer greater opportunities for career advancement, or provide a better work-life balance. However, a notable share of women left manufacturing jobs because of social and workplace cultural factors. Sexism in the workplace and personal relationship problems with colleagues and supervisors were considerations as well – especially for women under the age of 35.

FOR YOU OR WOMEN YOU KNOW WHO HAVE QUIT A MANUFACTURING JOB, WHAT WERE THE REASONS YOU/THEY LEFT?

(female respondents, in %)



Why do you think there are not more women working in manufacturing? (select up to three)

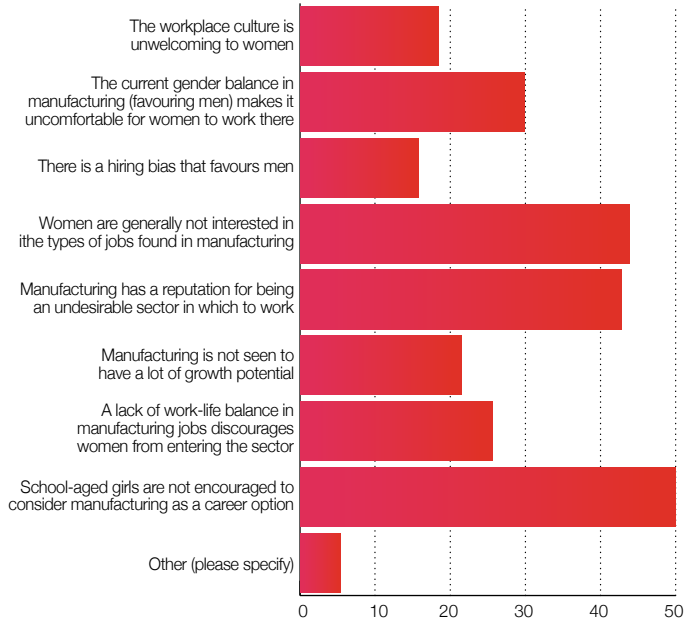
Women pointed to three main reasons why female representation in manufacturing is low. First, school-aged girls are not encouraged to enter manufacturing-related education and training programs – a view shared by 50 per cent of female survey respondents. About 44 per cent said that women were generally not interested in the types of jobs found in manufacturing, while 43 per cent said that the perception of manufacturing was a deterrent.

Women under the age of 35 were more likely to say that the absence of an inclusive workplace culture and the pre-existing gender imbalance were problems, while they were far less concerned that manufacturing may not be seen by some to be a high-growth sector.

Women in non-production fields were more likely to highlight gender and workplace culture issues, as well as to say that females are not as likely to be attracted to production-related jobs.

WHY DO YOU THINK THERE ARE NOT MORE WOMEN WORKING IN MANUFACTURING?

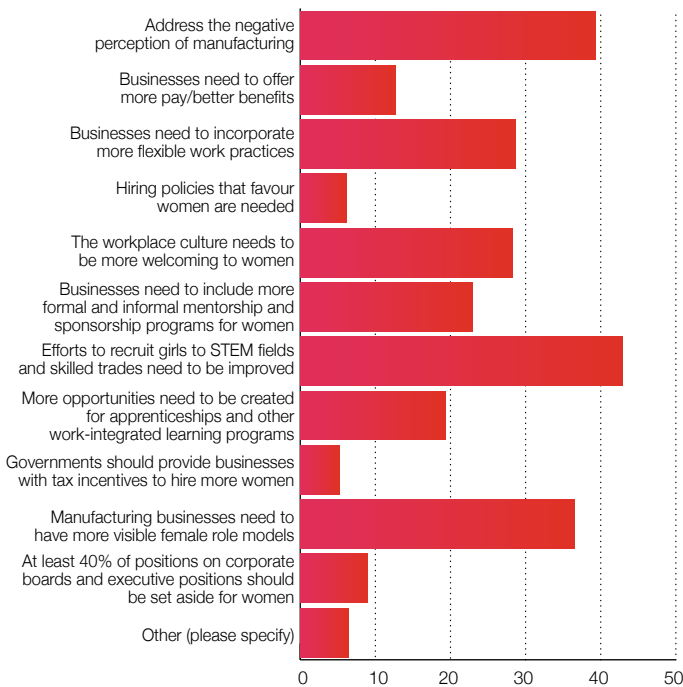
(female respondents, in %)



What do you think needs to be done to attract more women to manufacturing? (Select up to three)

Women see three main areas where action is needed in order to improve female representation in manufacturing. First, 43 per cent stated that efforts to attract girls to STEM and skilled trades education and training programs need to be improved. This view was especially common amongst women under the age of 35. Second, nearly 40 per cent said that steps need to be taken to improve the negative perception of manufacturing. Finally, 37 per cent said that companies need to have more visible female role models.

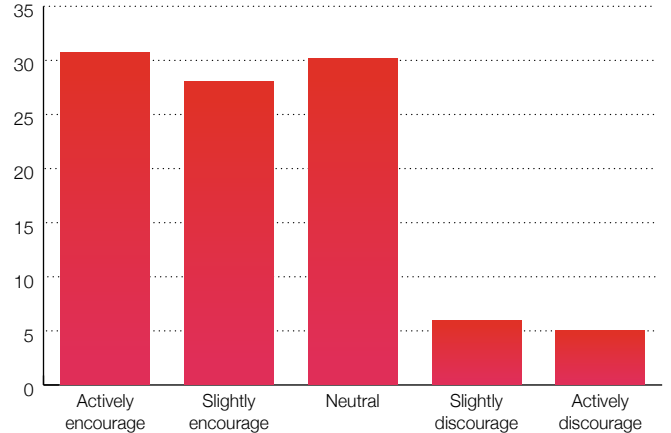
WHAT DO YOU THINK NEEDS TO BE DONE TO ATTRACT MORE WOMEN TO MANUFACTURING?
(female respondents, in %)



Would you encourage a daughter or female family member to pursue a career in manufacturing?

Women would encourage their daughters or female family members to work in manufacturing. About 59 per cent of female respondents agreed with that idea, while only about 11 per cent said that they would discourage their girls from entering the sector. Production workers were slightly more likely than average to be discouraging, while women under 35 were more likely to be supportive.

WOULD YOU ENCOURAGE A DAUGHTER OR FEMALE FAMILY MEMBER TO PURSUE A CAREER IN MANUFACTURING?
(female respondents, in %)

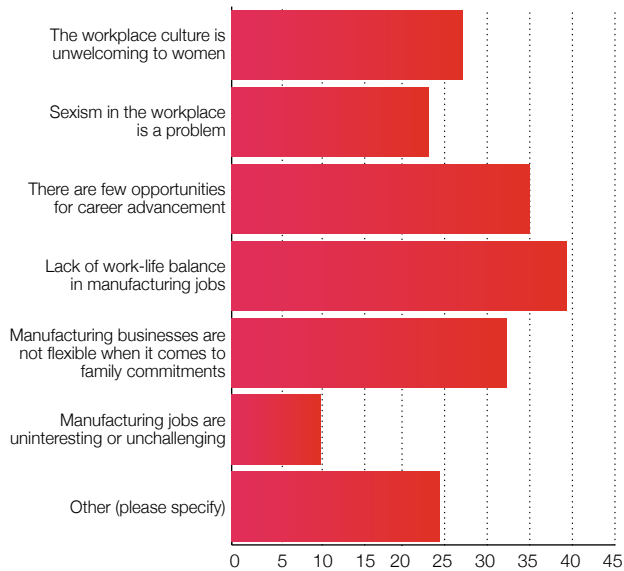


Why would you not encourage other women to enter manufacturing? (Select up to three)

Women who gave a neutral or negative response to the previous question were asked why they would not encourage other women to consider a job in manufacturing. Responses were distributed fairly evenly across the range of response options. The most common response (from 39 per cent of women) was a concern about work-life balance in manufacturing. Lack of career advancement and flexibility to meet family needs were also common concerns. The relatively high number of responses in the “other” category tend to reflect women who were neutral about manufacturing, not because they were indifferent to the sector, but because they wanted their daughters to make their own choices.

WHY WOULD YOU NOT ENCOURAGE OTHER WOMEN TO ENTER MANUFACTURING?

(female respondents, in %)



Thank you to our Partners

CME's Women in Manufacturing Working Group members and national partners share our vision to support, promote and inspire women in manufacturing in Canada, and have helped us throughout this process by defining our areas of focus and contributing to the research. Like CME, they believe that a strong Canada can and must have a strong manufacturing sector at its heart that includes diversity in the workplace. These individuals and companies have been instrumental in creating this action plan to improve female representation in manufacturing. A special thanks to:

Women in Manufacturing Working Group Members:

Elise Maheu, Director, Government Affairs, 3M Canada and Chair of CME's Women in Manufacturing Working Group

Rhonda Barnet, President & COO, Steelworks Design and Chair of CME's National Board of Directors

Sylvie Bergeron, Country HR Manager, ABB inc. in Canada

Gillian Briscoe, Human Resources Manager, Ford Motor Company of Canada

Tammy Brown, National Industry Leader, Industrial Markets, KPMG LLP

Peng-Sang Cau, President & CEO, Transformix Engineering Inc.

Cathy Gillespie, Chief Financial Officer, Palliser Furniture Upholstery Ltd

Lesley Lawrence, Senior Vice President, Ontario, Business Development Bank of Canada

Myriam Levasseur, VP Operations & Logistics, Suncor Energy

David McHattie, VP Institutional Relations, Canada, Tenaris

Chris McLean, Manager – Human Resources (Workforce Planning, Recruitment, Training and Development), Toyota Motor Manufacturing Canada, Inc.

Tessa Myers, Vice President, North America Sales, Services and Solutions, Rockwell Automation

Rosalind O'Brien, Quality & Logistics Manager, Pratt & Whitney Canada

Catherine O'Reilly, Director, Human Resources, Bombardier

Angela Pappin, Vice President, Technology, ArcelorMittal Dofasco

Kim Westenskow, Managing Director, Boeing Canada Operations Ltd.

Women in Manufacturing National Partners



Women in Manufacturing Industry Partners





Untapped Potential

APPENDIX – Detailed Survey Results

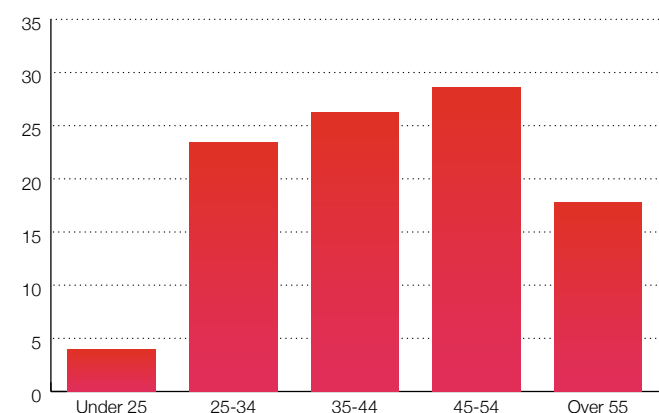
Attracting and engaging women
in Canadian manufacturing

Respondent profile

What is your age range?

Survey respondents were evenly mixed across the range of age categories. Slightly more than a quarter of (female) respondents were under 35 years of age. A similar share came from the 35-44 and 45-54 age ranges. About 18 per cent of respondents were over 55 years of age.

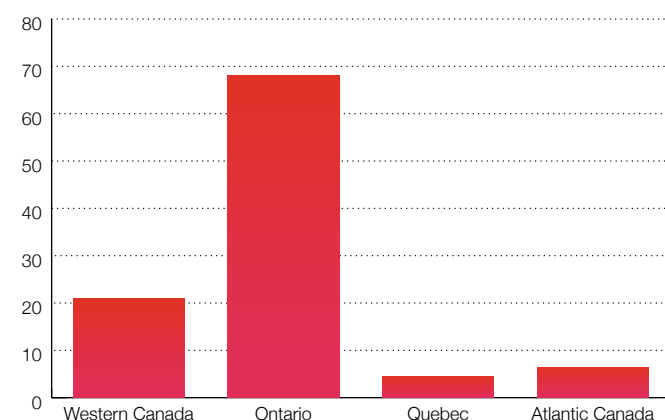
WHAT IS YOUR AGE RANGE?
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Where do you live/work?

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WHERE DO YOU LIVE/WORK?
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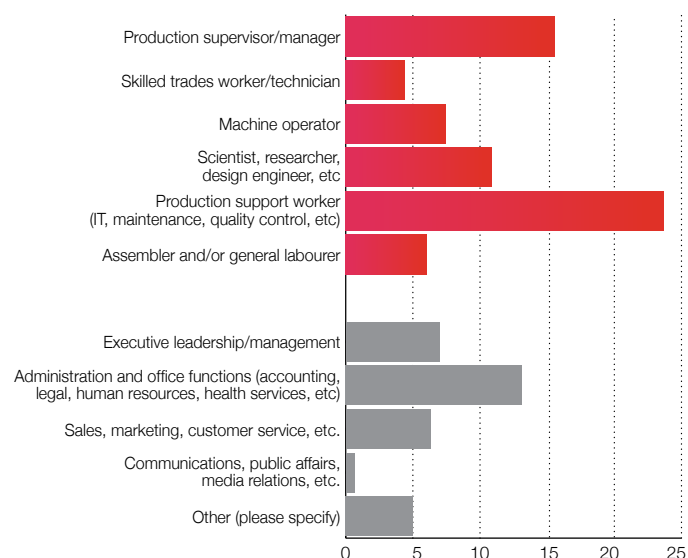
Which of the following best describes your work?

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Among those who were part of their company's manufacturing workforce, about 38 per cent identified themselves as production support workers; about 23 per cent worked in a supervisory or management role; and about 16 per cent were scientists, engineers or other STEM-related workers.

Among those working in jobs unrelated to the physical production of goods, about 41 per cent were in administration and office functions; 22 per cent were in executive or management positions and about 20 per cent worked in sales, marketing, business development and other related fields.

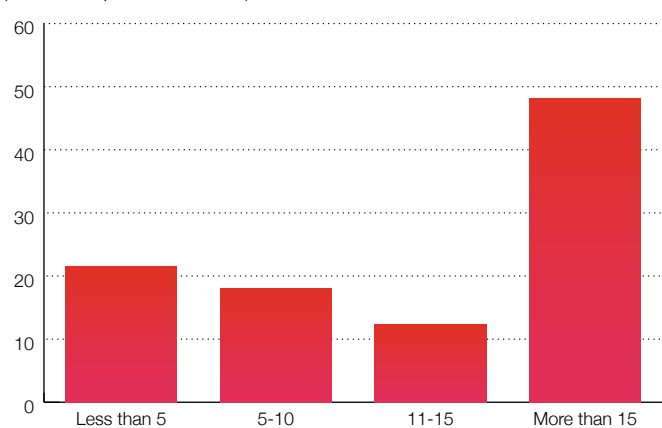
WHICH OF THE FOLLOWING BEST DESCRIBES YOUR WORK?
(female respondents, in %)



How many years' experience do you have working in a manufacturing business?

The survey captured information from women with a range of experience working in manufacturing businesses. About 48 per cent had more than 15 years of experience, while about 22 per cent had been in manufacturing for less than five years.

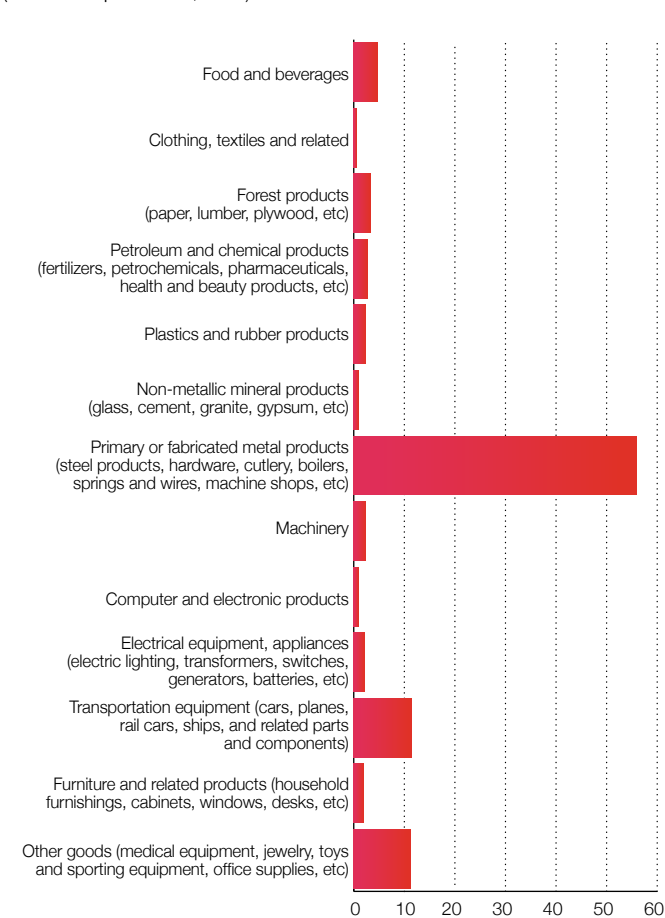
HOW MANY YEARS OF EXPERIENCE DO YOU HAVE WORKING IN A MANUFACTURING BUSINESS?
(female respondents, in %)



If your company is a manufacturer, which of the following best describes what it produces?

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IF YOUR COMPANY IS A MANUFACTURER, WHICH OF THE FOLLOWING BEST DESCRIBES WHAT IT PRODUCES?
(female respondents, in %)

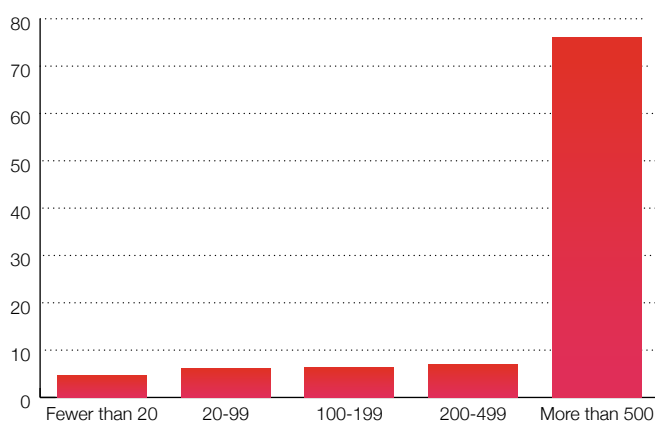


About how many people work at your company across Canada?

Most respondents work in large businesses – something to be expected, given the outsized number of people they employ. About 76 per cent of women who filled out the survey work in companies with at least 500 employees. Conversely, about 11 per cent worked for smaller companies – those with fewer than 100 employees.

ABOUT HOW MANY PEOPLE WORK AT YOUR COMPANY ACROSS CANADA?

(female respondents, in %)



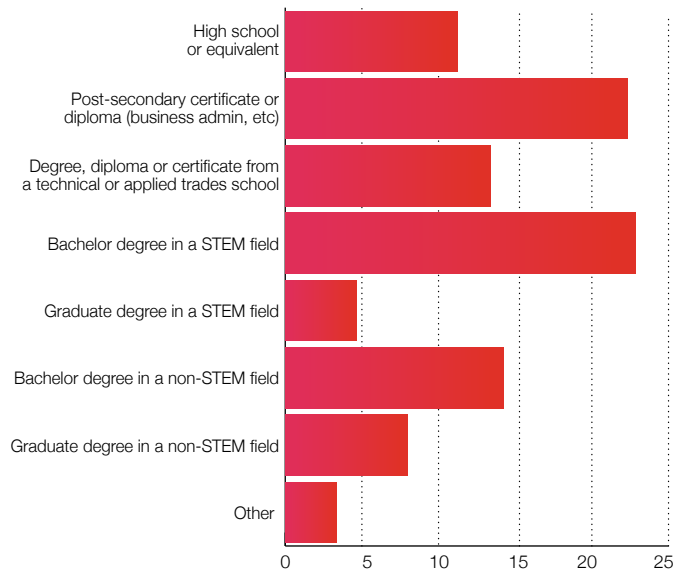
Which of the following best describes your level of education?

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Of particular note, close to five per cent of respondents chose the “other” category in this survey. Most of those individuals had educational qualifications in two areas: both a university degree as well as a certificate, diploma or degree from a technical or trade school.

WHICH OF THE FOLLOWING BEST DESCRIBES YOUR LEVEL OF EDUCATION?

(female respondents, in %)



Women's experiences in manufacturing

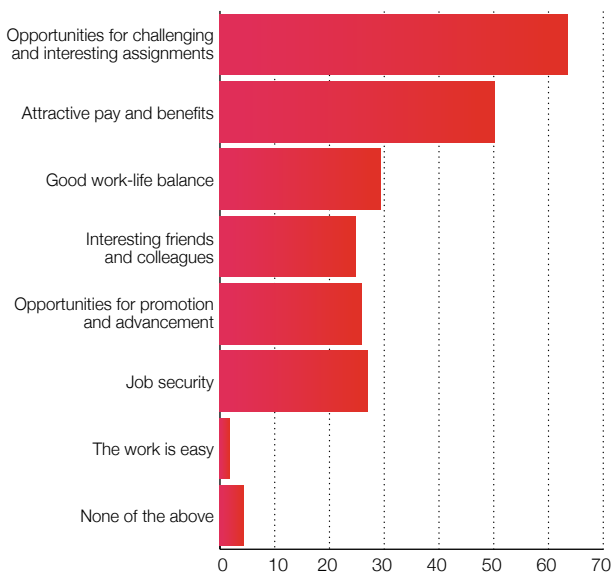
What do you like most about working in a manufacturing business (select up to three)?

Women enjoy the challenging and stimulating work environment they find in manufacturing jobs. More than 63 per cent said that those challenges are the best part of their work. About half of all women also pointed to the attractive compensation package they receive as a reward for their labour.

Production-related workers were slightly more likely to cite pay and benefits as an attractive aspect of their career, while non-manufacturing workers were more likely to point to challenging and interesting work. Meanwhile, women under 35 were more likely to value friends, colleagues and promotion opportunities.

WHAT DO YOU LIKE MOST ABOUT WORKING IN A MANUFACTURING BUSINESS?

(female respondents, in %)



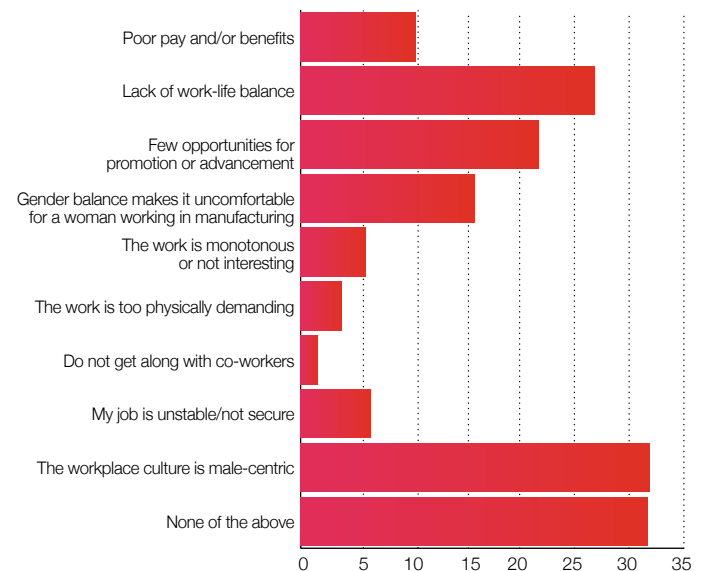
What do you like least about working in a manufacturing business (select up to three)?

No job is without drawbacks. When asked what they liked least about their work in manufacturing, the most common response from women was the male-centric workplace culture (32 per cent of respondents). A significant share also pointed to a lack of work-life balance (27 per cent) and limited opportunities for promotion (22 per cent). At the same time, a large proportion of women said that none of the response options applied.

Women in production-related fields were more likely to cite a lack of work-life balance, as well as limited opportunities for career advancement as problems. Meanwhile, non-manufacturing workers were more likely to point to the gender imbalance as a concern. Finally, women under 35 were more likely to see low pay and benefits as a problem.

WHAT DO YOU LIKE LEAST ABOUT WORKING IN A MANUFACTURING BUSINESS?

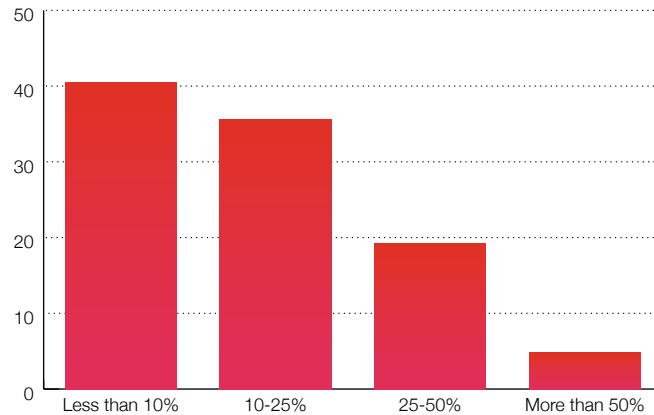
(female respondents, in %)



Approximately what share of your company's manufacturing workforce (production workers, floor managers, technicians, machine operators, STEM workers, etc) is made up of women?

Survey results confirm official data; women are heavily under-represented in production-related fields. More than three quarters of respondents stated that women make up less than 25 per cent of their manufacturing workforce, including 40 per cent who said that women hold less than one in ten production-related jobs. Less than five per cent of respondents said that women make up more than half of their company's production workforce.

APPROXIMATELY WHAT SHARE OF YOUR COMPANY'S MANUFACTURING WORKFORCE IS MADE UP OF WOMEN?
(female respondents, in %)

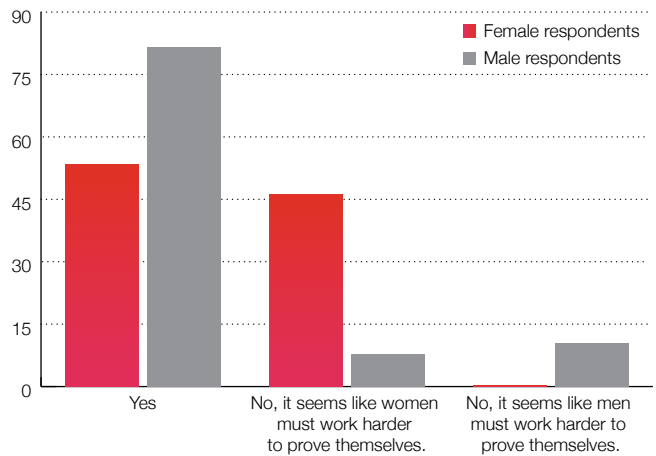


Do you believe that men and women are treated fairly and equally in your workplace?

Women were divided as to whether or not they were treated fairly and equally in the workplace. A little more than half said that they were, in fact, treated the same as men. Meanwhile, about 46 per cent said that they need to work harder to prove themselves. There was very little difference in responses between older and younger women, or between production- and non-production workers.

Although the survey was aimed at women, 183 men filled it in as well. While not necessarily a representative sample, these male respondents offer an interesting perspective on some of the survey questions. In this case, men do not believe that women are being treated unfairly. A full 82 per cent said that workplace treatment was equal between the sexes.

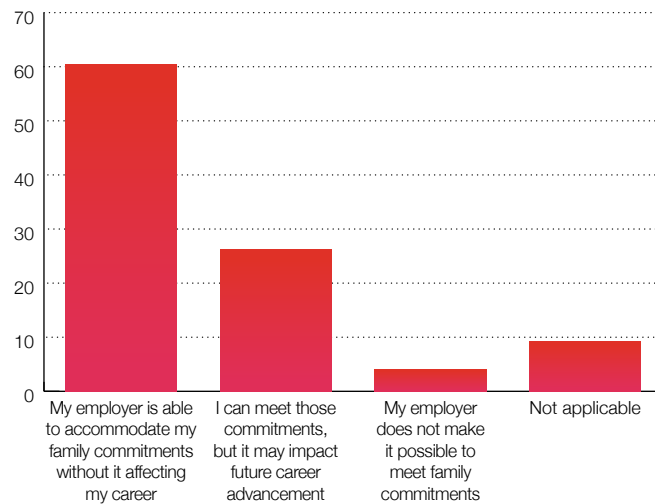
DO YOU BELIEVE THAT MEN AND WOMEN ARE TREATED FAIRLY AND EQUALLY IN YOUR WORKPLACE?
(% of respondents)



How flexible is your employer when it comes to allowing you to meet family commitments?

Women expressed some concern that family obligations such as child care could impact their career advancement in manufacturing. While about 60 per cent said that their employer was accommodating, more than a quarter thought there could be negative consequences. This view was more common for younger female workers. A small share (about four per cent) of women, mostly in production-related jobs, said that they were completely unable to meet family commitments.

HOW FLEXIBLE IS YOUR EMPLOYER WHEN IT COMES TO ALLOWING YOU TO MEET FAMILY COMMITMENTS?
(female respondents, in %)

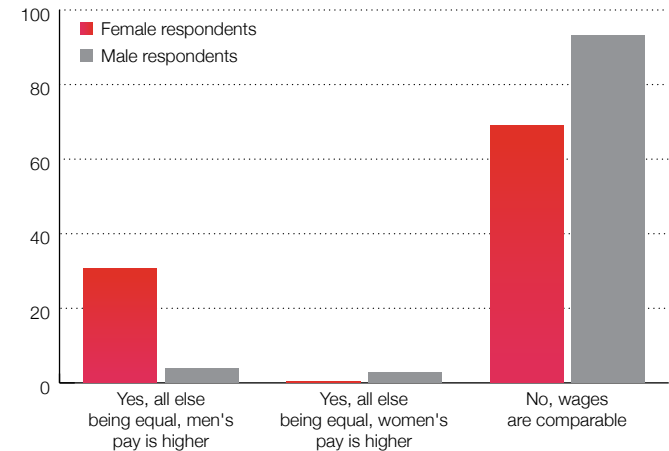


In your experience, do you see a wage gap in your company between men and women working at similar jobs with similar degrees of experience?

Most women in manufacturing – about 69 per cent – do not see a wage gap between themselves and their male peers working at comparable jobs with comparable seniority. However, a significant share – about 31 per cent of women – disagreed. Women in production jobs were less likely to see a wage gap compared to their counterparts in office-related functions. Women under 35 were also more likely to say that wages were equal.

Once again, the men who filled in the survey were far less likely to acknowledge that there might be a wage gap issue. More than 93 per cent said that wages were equal at comparable positions.

IN YOUR EXPERIENCE, DO YOU SEE A WAGE GAP IN YOUR COMPANY BETWEEN MEN AND WOMEN WORKING AT SIMILAR JOBS WITH SIMILAR DEGREES OF EXPERIENCE?
(% of respondents)

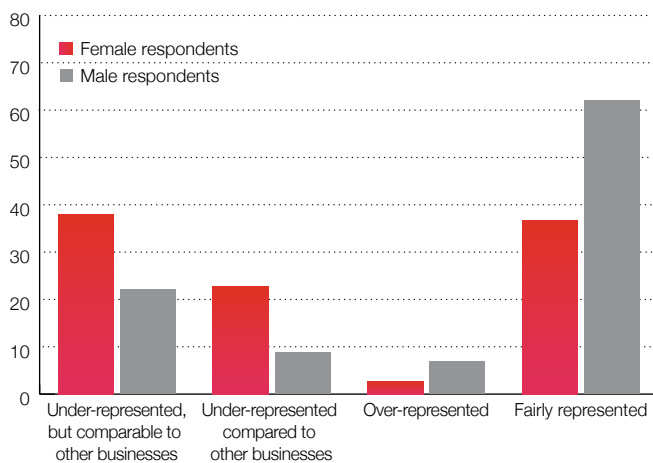


To what extent are women represented in your company's management team?

Most female respondents – about 61 per cent – think that women are underrepresented in management positions. However, most of those respondents said that, while low, female representation is roughly in line with other businesses and other industries. Meanwhile, about 37 per cent said that women were fairly represented.

Once again, there were significant discrepancies in perception between men and women. A full 62 per cent of men said that women were fairly represented in management positions and only nine per cent said that women were under-represented compared to other businesses.

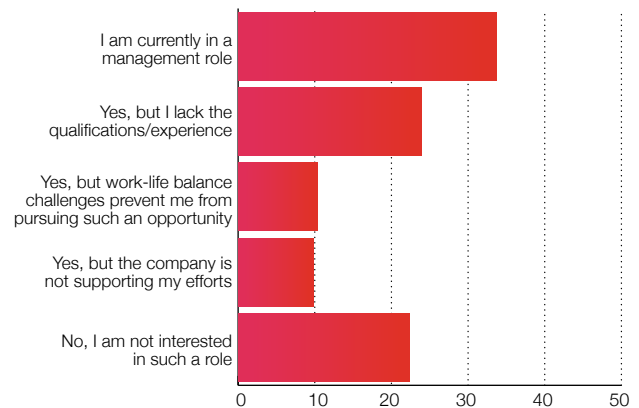
TO WHAT EXTENT ARE WOMEN REPRESENTED IN YOUR COMPANY'S MANAGEMENT TEAM? (female respondents, in %)



Do you aspire to a management or leadership role in your company?

Women are looking to advance and grow in their company. While about one third of respondents are already in leadership positions, a full two thirds of those who are not already so aspire to those positions. About 24 per cent of women think they currently lack the education and/or experience for such a role, while about 10 per cent see work-life balance challenges as an obstacle to career growth. The same share believe their company is not supporting their career aspirations.

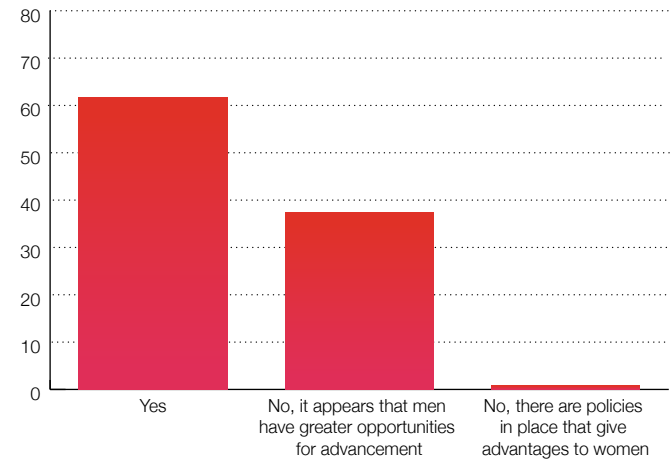
DO YOU ASPIRE TO A MANAGEMENT OR LEADERSHIP ROLE IN YOUR COMPANY? (female respondents, in %)



Do you believe you have the same opportunities for promotion as a man working in your field?

While there are obstacles as described above, most women think that they have a fair chance at future promotion opportunities. About 62 per cent said that they have the same opportunities as a man in their field. However, a full 37 per cent believe that gender bias continues to play a role in promotion opportunities. This view was slightly more common for women in production-related jobs.

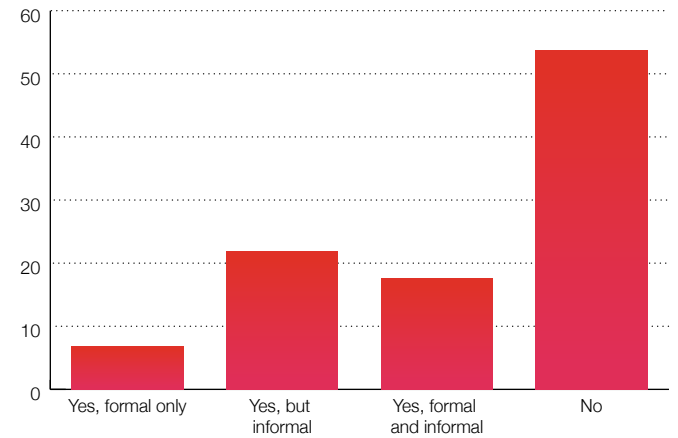
DO YOU BELIEVE YOU HAVE THE SAME OPPORTUNITIES FOR PROMOTION AS A MAN WORKING IN YOUR FIELD?
(female respondents, in %)



Are there women's networking groups within your company?

Women's networking groups represent an opportunity for women to gain access to female mentors, career advice and assistance with workplace challenges. Unfortunately, not many women have access to this resource. Less than a quarter of female respondents said they had formal networking groups within their company. More than half had no such resource available to them.

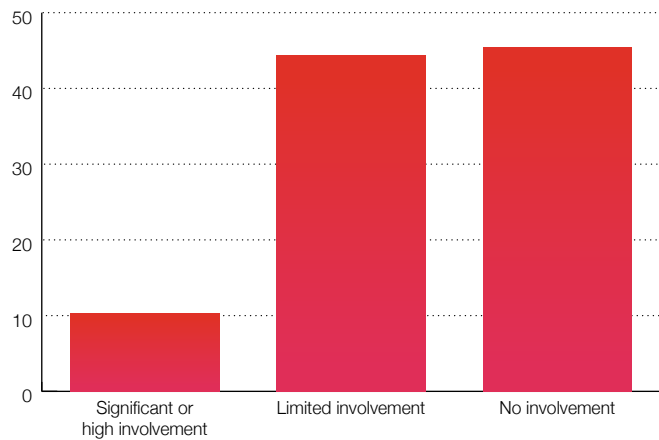
ARE THERE WOMEN'S NETWORKING GROUPS WITHIN YOUR COMPANY?
(female respondents, in %)



To what extent do you participate in women's networking groups inside or outside your company?

Women who had access to networking groups were asked about their level of involvement in those groups. Survey results suggest that most women choose not to get involved. Only a small percentage stated that they were active participants, about 44 per cent said that their involvement was limited, while 46 per cent were not involved in those groups at all.

TO WHAT EXTENT DO YOU PARTICIPATE IN WOMEN'S NETWORKING GROUPS INSIDE OR OUTSIDE YOUR COMPANY?
(female respondents, in %)



Have these groups been valuable to you, whether personally or professionally?

Women were evenly split on the value of women's networking groups. Of those who participated in those groups, half said that their experience had been personally or professionally valuable, while about the same share thought that the networking groups offered no value to them.

HAVE THESE GROUPS BEEN VALUABLE TO YOU, WHETHER PERSONALLY OR PROFESSIONALLY?
(female respondents, in %)



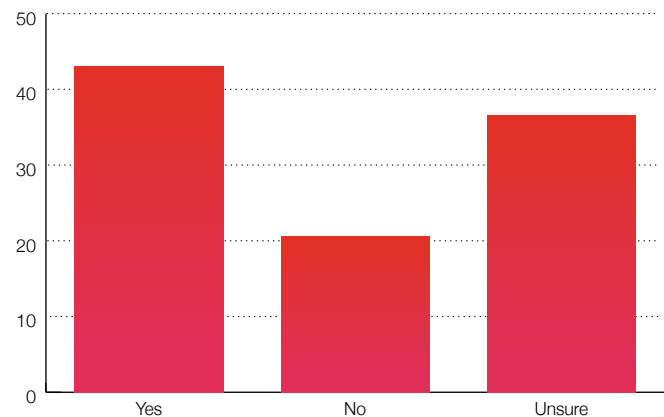
Women’s views about careers in manufacturing

If you were to restart your career today, would you choose to work in manufacturing?

A plurality of women would actively choose to work in manufacturing if they could restart their careers all over again. Only about 20 per cent explicitly stated that they would not choose manufacturing, while about 37 per cent suggested that they would keep their options open. Women under 35 were slightly more likely to say that they would remain in manufacturing.

IF YOU WERE TO RESTART YOUR CAREER TODAY, WOULD YOU CHOOSE TO WORK IN MANUFACTURING?

(female respondents, in %)

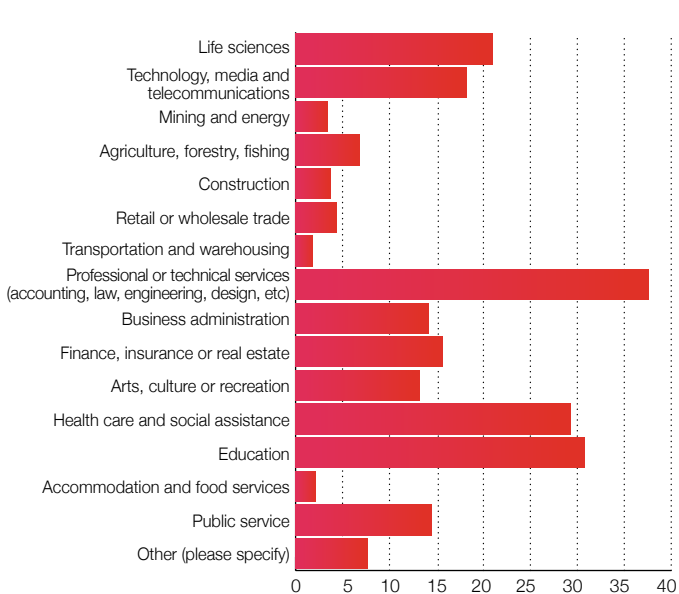


Where, instead of manufacturing, would you choose to work? (select up to three)

Women who responded “no” or “unsure” to the previous question were asked a supplemental question about the industries in which they would consider working, besides manufacturing. Three answers stood above the rest: nearly 38 per cent of women said they would consider a job in professional, scientific or technical services; 31 per cent chose education; and 29 per cent picked health care and social services.

WHERE, INSTEAD OF MANUFACTURING, WOULD YOU CHOOSE TO WORK?

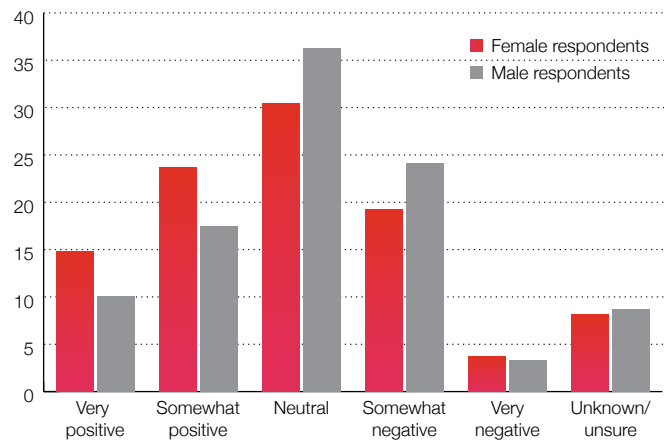
(female respondents, in %)



Generally speaking, do your female friends and family have a positive or negative view of manufacturing as a career option?

Women are divided when it comes to their perception of manufacturing as a career option. About 39 per cent stated that their female friends and family have a positive impression of the sector. Meanwhile, about 30 per cent were neutral and 23 per cent had a negative impression. Women in production-related fields tended to be more decisive, with a higher share of positive and negative responses and fewer neutral replies. Younger women tended to skew slightly more to the negative. At the same time, male respondents appear to think that women have a less positive impression of manufacturing.

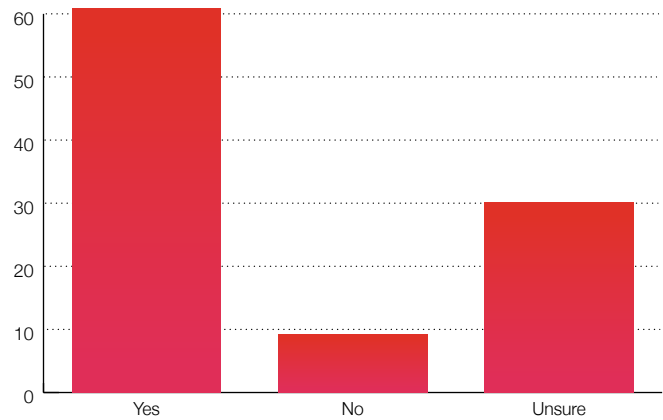
GENERALLY SPEAKING, DO YOUR FEMALE FRIENDS AND FAMILY HAVE A POSITIVE OR NEGATIVE VIEW OF MANUFACTURING AS A CAREER OPTION?
(in %)



Do you think that if women had more exposure to manufacturing work, they would be more likely to consider a career in that sector?

Female respondents tend to think that if other women were able to see what was actually involved in production-related manufacturing work, they would be more likely to consider a career in a related field. A full 61 per cent held this view. Less than 10 per cent of women thought that more exposure to manufacturing work would actually deter female participation.

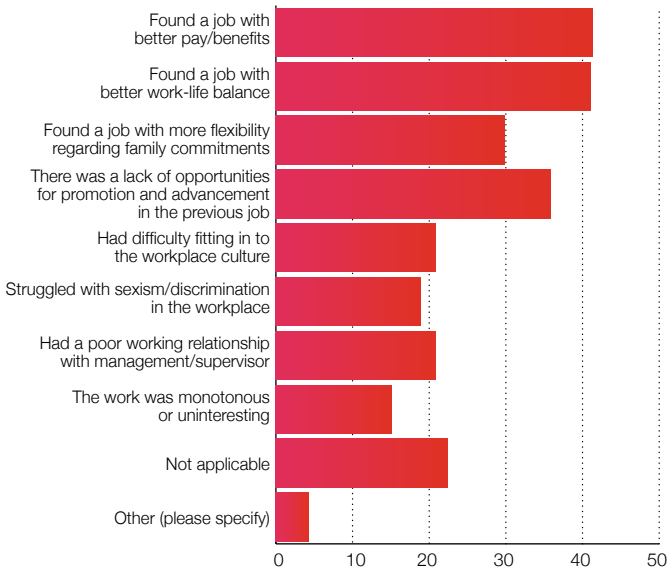
DO YOU THINK THAT IF WOMEN HAD MORE EXPOSURE TO MANUFACTURING WORK, THEY WOULD BE MORE LIKELY TO CONSIDER A CAREER IN THAT SECTOR?
(female respondents, in %)



For you or women you know who have quit a manufacturing job, what were the reasons you/they left? (select all that apply)

Women tend to leave manufacturing jobs because they find alternatives that pay better, offer greater opportunities for career advancement, or provide a better work-life balance. However, a notable share of women left manufacturing jobs because of social and workplace cultural factors. Sexism in the workplace and personal relationship problems with colleagues and supervisors were considerations as well – especially for women under the age of 35.

FOR YOU OR WOMEN YOU KNOW WHO HAVE QUIT A MANUFACTURING JOB, WHAT WERE THE REASONS YOU/THEY LEFT?
(female respondents, in %)



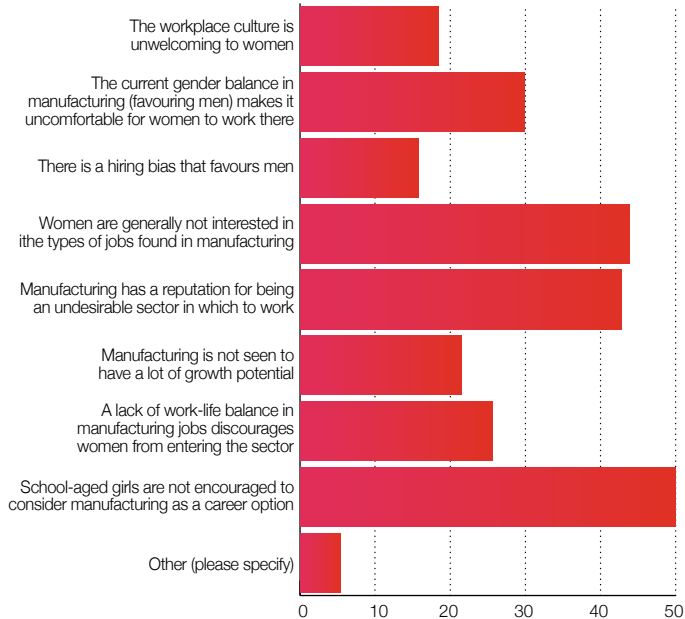
Why do you think there are not more women working in manufacturing? (select up to three)

Women pointed to three main reasons why female representation in manufacturing is low. First, school-aged girls are not encouraged to enter manufacturing-related education and training programs – a view shared by 50 per cent of female survey respondents. About 44 per cent said that women were generally not interested in the types of jobs found in manufacturing, while 43 per cent said that the perception of manufacturing was a deterrent.

Women under the age of 35 were more likely to say that the absence of an inclusive workplace culture and the pre-existing gender imbalance were problems, while they were far less concerned that manufacturing may not be seen by some to be a high-growth sector.

Women in non-production fields were more likely to highlight gender and workplace culture issues, as well as to say that females are not as likely to be attracted to production-related jobs.

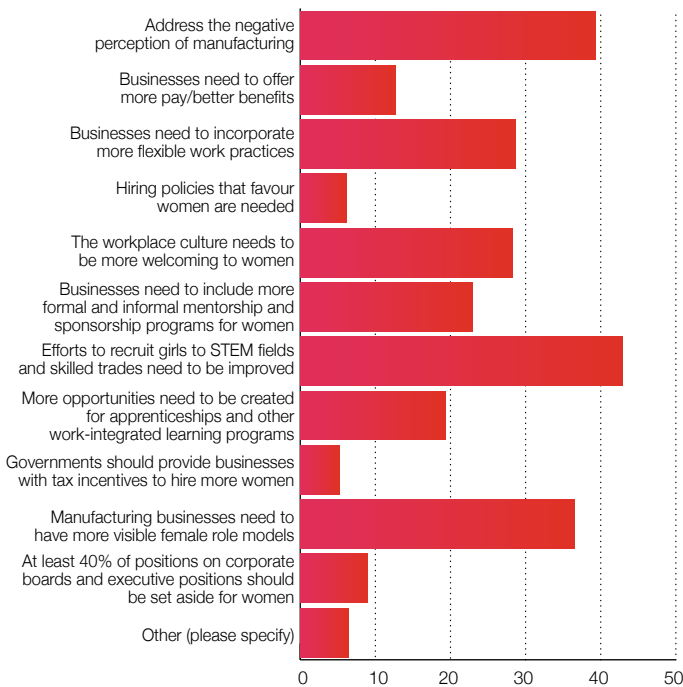
WHY DO YOU THINK THERE ARE NOT MORE WOMEN WORKING IN MANUFACTURING?
(female respondents, in %)



What do you think needs to be done to attract more women to manufacturing? (Select up to three)

Women see three main areas where action is needed in order to improve female representation in manufacturing. First, 43 per cent stated that efforts to attract girls to STEM and skilled trades education and training programs need to be improved. This view was especially common amongst women under the age of 35. Second, nearly 40 per cent said that steps need to be taken to improve the negative perception of manufacturing. Finally, 37 per cent said that companies need to have more visible female role models.

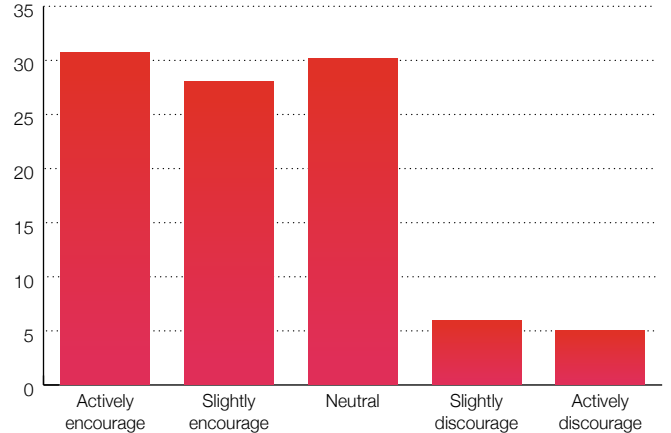
WHAT DO YOU THINK NEEDS TO BE DONE TO ATTRACT MORE WOMEN TO MANUFACTURING?
(female respondents, in %)



Would you encourage a daughter or female family member to pursue a career in manufacturing?

Women would encourage their daughters or female family members to work in manufacturing. About 59 per cent of female respondents agreed with that idea, while only about 11 per cent said that they would discourage their girls from entering the sector. Production workers were slightly more likely than average to be discouraging, while women under 35 were more likely to be supportive.

WOULD YOU ENCOURAGE A DAUGHTER OR FEMALE FAMILY MEMBER TO PURSUE A CAREER IN MANUFACTURING?
(female respondents, in %)

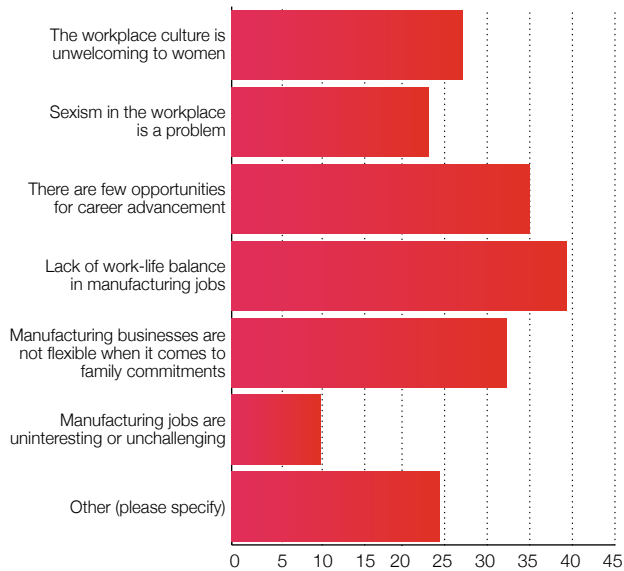


Why would you not encourage other women to enter manufacturing? (Select up to three)

Women who gave a neutral or negative response to the previous question were asked why they would not encourage other women to consider a job in manufacturing. Responses were distributed fairly evenly across the range of response options. The most common response (from 39 per cent of women) was a concern about work-life balance in manufacturing. Lack of career advancement and flexibility to meet family needs were also common concerns. The relatively high number of responses in the “other” category tend to reflect women who were neutral about manufacturing, not because they were indifferent to the sector, but because they wanted their daughters to make their own choices.

WHY WOULD YOU NOT ENCOURAGE OTHER WOMEN TO ENTER MANUFACTURING?

(female respondents, in %)



Thank you to our Partners

CME's Women in Manufacturing Working Group members and national partners share our vision to support, promote and inspire women in manufacturing in Canada, and have helped us throughout this process by defining our areas of focus and contributing to the research. Like CME, they believe that a strong Canada can and must have a strong manufacturing sector at its heart that includes diversity in the workplace. These individuals and companies have been instrumental in creating this action plan to improve female representation in manufacturing. A special thanks to:

Women in Manufacturing Working Group Members:

Elise Maheu, Director, Government Affairs, 3M Canada and Chair of CME's Women in Manufacturing Working Group

Rhonda Barnet, President & COO, Steelworks Design and Chair of CME's National Board of Directors

Sylvie Bergeron, Country HR Manager, ABB inc. in Canada

Gillian Briscoe, Human Resources Manager, Ford Motor Company of Canada

Tammy Brown, National Industry Leader, Industrial Markets, KPMG LLP

Peng-Sang Cau, President & CEO, Transformix Engineering Inc.

Cathy Gillespie, Chief Financial Officer, Palliser Furniture Upholstery Ltd

Lesley Lawrence, Senior Vice President, Ontario, Business Development Bank of Canada

Myriam Levasseur, VP Operations & Logistics, Suncor Energy

David McHattie, VP Institutional Relations, Canada, Tenaris

Chris McLean, Manager – Human Resources (Workforce Planning, Recruitment, Training and Development), Toyota Motor Manufacturing Canada, Inc.

Tessa Myers, Vice President, North America Sales, Services and Solutions, Rockwell Automation

Rosalind O'Brien, Quality & Logistics Manager, Pratt & Whitney Canada

Catherine O'Reilly, Director, Human Resources, Bombardier

Angela Pappin, Vice President, Technology, ArcelorMittal Dofasco

Kim Westenskow, Managing Director, Boeing Canada Operations Ltd.

Women in Manufacturing National Partners



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