



GENDER BASED ANALYSIS:
**THIRD ANNUAL ASSESSMENT OF THE
TECHNOLOGY SECTOR IN QUEBEC**

WOMEN
IN TECHNOLOGY



FINAL REPORT | MARCH, 2015

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This findings presented in this report do not necessarily represent the official policy standings of Status of Women Canada.

EXECUTIVE SUMMARY

Based on secondary research and primary data collected through surveys and interviews, this report examines the factors influencing the underrepresentation of women in Quebec's technology sector. The report focuses on early education in technology as well as career development, and addresses the main challenges encountered by women working in Quebec's technology sector.

Gender in the Education Sector and the Workplace

- While many female high school students excel in STEM subjects, less than a quarter of female university entrants choose to study in these fields. Many female students are effectively limiting their lifetime earning power by ignoring the potential of STEM careers.
- This is influenced by 'off-ramping', the practice of leaving the workforce - even for a short period of time. Women who choose to leave the workforce to care for family or for self-development often struggle to return and frequently accept a lower salary than experience merits simply so they can re-enter.
- With a growing trend toward self-employment, more women than ever are choosing to leave the traditional workforce to pursue their own ventures. Montreal's vibrant start-up community offers immense potential for women to run their own technology initiatives. Increasing numbers of women are pursuing options for self-employment with technology start-ups.
- Male university students and graduates showed a marked preference for STEM. These male students were more likely to study engineering, but the gap is closing for the field of computer science.
- Both domestic and international migrants play a vital role in the technology sector. Quebec is very capable of attracting talented and skilled labour from within Canada and around the world.

Findings from the Montreal Technology-Sector Study

- Despite the draw of the province's technology sector, barriers to talent retention persist. Salary inequity between men and women continues to challenge Montreal's technology sector. Surveys in 2013 and 2015 reveal that 45% of women believed that their male colleagues received better compensation than their female colleagues.
- Both women and men believe that women do not speak up in the workplace, and hence fail to gain sufficient recognition for their work. Nearly half of survey respondents indicated that women do not adequately promote themselves or their skills.
- Some seven in ten believe that men and women are not promoted at the same rate.
- Some two-thirds of women indicated that role models and mentors are lacking in the workplace.

INTRODUCTION

Background

This paper represents the Gender Based Analysis portion of YES Montreal's Women in Technology (WIT) project. Based on empirical research our objective is to determine how best to build capacity in Montreal's technology sector by applying gender-based analysis to women's career development in the technology sector. The research supports the delivery of programs focusing on the development, implementation and evaluation of women's careers in technology *over a three-year period, between 2013 and 2015.*

In general, men and women have varying life experiences, influenced by social, political and economic circumstances. Ideology, culture and gender shape identities and often influence the choices made in the workplace. This needs to be taken into consideration when assessing the conditions encountered by men and women across various occupations.

This report seeks to help women in Quebec's technology sector in attaining their career goals. In order to elaborate upon these issues and opportunities, the study relies on a literature review and primary data collection.

In late 2012 YES Montreal launched a three-year project entitled "Women in Technology". This project sought to identify ways to increase the number of women involved in the fields of technology by applying a gender-based analysis to develop and implement an awareness and evaluation program. In addition to the production of a research paper we stress the need for entrepreneurship, job search and mentorship programs for women in the technology sector.

The overall objectives of the project were:

- To increase the understanding of how gender impacts the uptake, development and commitment of women with careers in technology.
- To support women in the development of their careers by setting goals and promoting change in Montreal's technology sector.

Rationale for the Project

YES Montreal's Women in Technology program and subsequent gender-based analysis was driven by the realisation that:

- Gendered perspectives in technology need to be closer to the forefront of issues facing private sector leaders. Studying the issues and alerting industry will trigger positive action.
- An understanding of gender is central to identifying the nature of problems confronting the technology sector and working towards solutions to these problems.

The research component of the project:

- Gathered information about relevant tools and approaches
- Gathered research to support the development of an evaluation tool for the technology sector.
- Provided information to the technology sector that assisted with gender analysis and equal opportunity.

This research document sought to provide definitions and clarifications for relevant key concepts. The objectives of this research included the identification of current GBA research and to support continued application of GBA.

Key Concepts and Definitions

Gender Defined

Gender “refers to the roles and responsibilities of women and men that are created in our families, our societies and our cultures. The concept of gender also includes the expectations held about the characteristics, aptitude and behaviours of both women and men (femininity and masculinity). These roles and expectations are learned. They can change over time and they vary within and between cultures. The concept of gender facilitates gender analysis, revealing how women's subordination is socially constructed. As such, the subordination can be changed or ended. It is not biologically predetermined nor is it fixed forever.”¹

“Gender is a useful concept that can help [us] understand how men and women are socialised to conform to specific and distinct rules of behaviour, and perform certain specific roles, activities and professions.”²

Gender is a core organising principle of social relations and opportunities. Gender roles are not universal. Instead, they vary from culture to culture. Gender and gender roles and relationships impact all processes of life. In order to better understand and respond to the needs of the technology sector, we must take an integrated approach that addresses the intersection of gender, age, visible minority status, education, language, etc.

Intersectionality operates under the premise that people live multiple, layered identities derived from social relations, history and the operation of structures of power. People are members of more than one community at the same time. Intersectional analysis aims to reveal multiple identities, exposing the different types of discrimination and disadvantage that occur as a consequence of the combination of identities.

GBA Definitions and Purpose

Gender-based analysis (GBA) is prevalent on the international stage as an analytical tool that can be used to assess how the impact of policies and programs on girls/women might differ from their impact on boys/men.³ In order to understand the premise under which these studies are conducted, a selection of definitions are drawn and provided below.

International Labour Organisation:

“Gender analysis is a tool to diagnose the differences between women and men regarding their specific activities, conditions, needs, access to and control over resources, and access to development benefits and decision-making. It studies the linkages of these and other factors in the larger social, economic, political and environmental context. Gender analysis entails, first and foremost, collecting sex disaggregated data and gender-sensitive information about the population concerned. Gender analysis is the first step in gender-sensitive planning for promoting gender equality”.⁴

Status of Women Canada:

“[GBA] includes an understanding of the nature of relationships between men and women, and the different social realities, life expectations and economic circumstances facing women and men. It acknowledges that some women may be disadvantaged even further because of their race, colour, sexual orientation, socio-economic position, region, ability, level or age. A gender-based analysis respects and appreciates diversity.”⁵

Health Canada, Bureau of Women's Health and Gender Analysis:

“GBA is an analytical tool that systematically integrates a gender perspective into the development of policies, programs and legislation, as well as planning and decision making processes. It helps to identify and clarify the differences between women and men, boys and girls, and demonstrates how these differences affect health status, access to, and interaction with, the health care system.”⁶

As represented above, GBA definitions as presented above share commonalities:

1. The definitions focus on men/boys’ and women/girls’ needs and relationships.
2. Rarely is the concept of gender identity and sexual orientation addressed; when these concepts are referred to, they are regarded as added variables (similar to age, or economic status).

Role of Socioeconomics in GBA

Gender analysis questions the distribution of resources along with the impact of culture and traditions. By addressing how an initiative can impact women and men, GBA challenges existing gender divisions of labour, economic disparities and promotes equality. Domestic contributions frequently go unrecognised as economic contributions. Work within the home, such as childcare and domestic labour, does not fit within conventional moneymaking structures. As a result, this type of work is underrepresented in official statistics, and undervalued by society as a whole.

METHODS

Literature Review

The literature review identified and reviewed HR, labour market and sociological studies and surveys from Canada and around the globe. Steps included:

- Identification of issues facing the Information, Communication and Technology (ICT) sector, particularly female recruitment and retention.
- Identification of programs, resources, outreach strategies, promotional campaigns and career development tactics and their impacts.
- Focus on the issues facing entry and retention within the ICT field.

Themes identified in the literature review were used to develop the interview questions used in the Case Study Interviews.

Technology Sector Survey

Primary data, presented in *'Gender-Based Trends: Findings from the Montreal Technology-Sector Survey'*, includes the findings from 497 survey responses, 20 enterprise surveys and 20 case study interviews. Individuals in professional roles, employment seekers, students and funders were approached for the study, which reached out to sectors, including, but not limited to:

- Software and hardware development
- Gaming
- Ecommerce
- Digital arts
- Biotechnology

The most recent wave of the YES Montreal Women in Technology survey was offered online between December 12, 2014 and February 17, 2015. The survey consisted of twenty-five demographic and sociographic questions and was circulated throughout YES's clientele, WIT Advisory Committee member's professional networks, and a variety of personal networks. In total, the survey reached 497 people from Canada and the United States.

Nearly 4 in 5 survey respondents were female (n=388 or 78%) and the majority of the sample was between the age of 25 and 44 (n=353 or 71%). Almost half of respondents were born and raised in Quebec (44%) and another one-third resided in Quebec for six or more years. Slightly more than half of respondents were married at the time of the survey (54%) and one-third had children. In terms of education, 4 in 5 respondents (80%) had a bachelor's degree or higher, one-third had a master's degree or higher (31%) and approximately 7% had an MBA or PhD.

The data was refined to isolate respondents from Quebec, to address the differences between male and female respondents, and to identify gaps between the technology sector and the soft-technical sectors in Quebec.

During the first year of the study, the online survey consisted of thirty-two demographic and sociographic questions. In total, the survey reached 546 people from around the world.

Enterprise Survey

The survey, conducted online between January 6, 2015 – February 17, 2015, consisted of four questions related to each business' hiring objectives. The survey was circulated to those enterprises that participated in YES Montreal's 2014 NetWORK Now event.

Case Study Interviews

Twenty YES Women in Technology (WIT) program participants contributed to the 2015 GBA case study interviews. These participants shared their insights and experience about Quebec's technology sector in a series of one-on-one interviews. Stakeholders included members of, but were not limited to, the following domains:

- Software and hardware development
- Gaming
- Ecommerce
- Digital arts
- Biotechnology

Case study interview findings are presented along with those from the technology sector survey. Results from these studies can be used to build capacity in the sector by increasing awareness of the social, family and workplace issues that women face when entering (and remaining) in the technology field. Insights from these studies can also be used to inform the development, implementation and evaluation of WIT programs and services in Montreal.

LANDSCAPE: GENDER IN THE WORKPLACE

STEM Education and Gender

An analysis by Darcy Hango⁷ entitled "Gender differences in science, technology, engineering, mathematics and computer science (STEM) programs at university" (2013) observes that while women currently represent the majority of young university graduates, they remain underrepresented in science, technology, engineering, mathematics and computer science (STEM) fields. Hango points out:

- According to the 2011 National Household Survey (NHS), women accounted for 39% of university graduates aged 25 to 34 with a STEM degree in 2011, compared with 66% of university graduates in non-STEM programs.
- Among STEM graduates aged 25 to 34, women accounted for 59% of those in science and technology programs, but accounted for 23% of those who graduated from engineering and 30% of those who graduated from mathematics and computer science programs.
- Among women who choose to pursue a degree in STEM, most do so in biology or science programs, resulting in even fewer women in engineering, computer science and mathematics programs.

While aptitude is undoubtedly a consideration in the choice of a university program it only partly explains gender differences in STEM choices. Young women with a

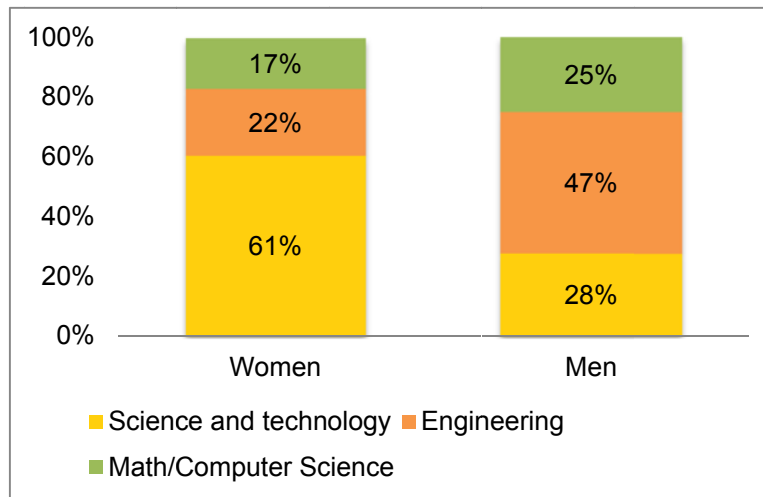
high level of mathematical ability remain far less inclined to enter STEM fields than young men, even where the latter possess less aptitude for mathematics. This implies that other factors need to be taken into account when explaining the gender gap in STEM-related programs. Amongst others, Hango suggests that we consider labour market expectations including family and work balance, differences in motivation and interest.

Educational choices have market implications, as better than average outcomes in employment and earnings arise from fields of study such as engineering and computer science. The ratio of men to women educated and employed in STEM indicates that there is a persistent disconnect between opportunity and potential. By not taking paths leading to STEM education and work, promising young women are effectively reducing their chances at larger lifetime salaries and opportunities to influence the strategic direction of leading organizations in the industry.

Canada: The Technology Sector in Brief

Hango's (2013) analysis reveals that women are proportionately underrepresented among STEM graduates; although 59% of all university graduates aged 25-34 in 2011 were female⁸, only 39% of graduates with a STEM degree were female. And the majority of female STEM degree holders majored in science and technology (61%) – compared to only 28% of male STEM degree holders. Nearly 1 in 2 male graduates (in STEM) received a degree in engineering (47%) versus only 1 in 5 women who graduated with an engineering degree.

FIGURE 1.1 PERCENT OF STEM UNIVERSITY GRADUATES AGED 25-34 BY SEX



Source: National Household Survey 2011 Statistics Canada⁹

Hango points out that Canadian men aged 25 to 34 with STEM degrees concentrated in engineering had lower unemployment rates and higher wages than their non-STEM counterparts. The labour market outcomes of women with STEM degrees, who are more concentrated in science and technology, did not clearly differ from non-STEM women in this age group.¹⁰

Hango observes that “better labour market outcomes of young graduates with a STEM degree are often used as motivational factors to encourage students to choose a STEM degree.” Such conditions can vary by gender and dimensions of labour market performance. Rates of unemployment are an important dimension of performance. Employing data from Statistics Canada’s 2011 National Household Survey, Hango notes that the rate of unemployment for graduates aged 25 to 34 with a STEM university degree was 4.7% compared with 5.5% for those with a non-STEM degree, while the unemployment rate of women with a STEM university degree was 7.0%, compared with 5.7% among those with a non-STEM degree.

Hango describes “skills mismatch” as the situation wherein men with a STEM university degree are also less likely than non-STEM graduates to be working in occupations requiring a high school education or less. This is illustrated in the table below. In sum, amongst men between the age of 25 and 34 with a STEM university degree, almost 12% were in occupations generally requiring a high school diploma or less, compared with 22% among those with a non-STEM university degree. About 18% of all women were in occupations requiring a high school diploma or less, regardless of STEM degree vs. non-STEM degree status.

TABLE 1: LABOUR MARKET OUTCOMES OF UNIVERSITY GRADUATES AGED 25 TO 34, BY SEX AND MAJOR FIELD OF STUDY, 2011 ^{Note 1}

Unemployment	Percentage		
	Total	Women	Men
Total STEM	5.5	7.0	4.7
Science	6.2	6.6	5.8
Technology (except engineering technology)	5.1	3.4	6.7
Engineering	4.9	7.1	4.3
Mathematics and computer science	5.4	8.5	4.2
Non STEM	5.6	5.7	5.5
Skill mismatch ^{Note 2}	Total	Women	Men
Total STEM	14.3	18.3	11.8
Science	18.0	18.9	16.8
Technology (except engineering technology)	22.2	20.5	23.5
Engineering	10.6	13.5	9.8
Mathematics and computer science	13.6	22.4	10.1
Non STEM	19.7	18.5	22.2
Dollars			
Median wages and salaries ^{Note 3}	Total	Women	Men
Total STEM	59,300	53,200	62,300
Science	51,700	49,100	55,300
Technology (except engineering technology)	51,700	49,700	54,600
Engineering	65,200	61,100	66,300
Mathematics and computer science	59,300	54,900	60,800
Non STEM	52,200	50,200	56,000

Source: Statistics Canada, National Household Survey, 2011 as cited in Darcy Hango, “Gender differences in science, technology, engineering, mathematics and computer science (STEM) programs at university”

Statistics Canada, December 2013.

Note 1: This table displays the results of labour market outcomes of university graduates aged 25 to 34 total, women and men, calculated using percentage and dollars units of measure (appearing as column headers).

Note 2: Percentage of persons working in occupations requiring a high school education or less. Includes persons who were employed during the NHS reference week, or weren't employed but last worked in 2010 or 2011. Similar differences were found between groups when the sample was restricted to employees working full year, full-time in 2010.

Note 3: Gross wages and salaries before deduction, employees working full year, full time in 2010.

Hango reaffirms that STEM programs lead to better-paying jobs and even more so for men. In 2010, men aged 25 to 34 with a STEM university degree earned a median of \$62,300, versus \$56,000 for those who graduated from non-STEM programs. For female university-educated STEM graduates median salaries and wages were \$53,200, compared with \$50,200 for non-STEM graduates. The gap is largely attributable to the higher concentration of men in engineering where earnings are significantly higher.

Quebec: Technology Sector Overview

As the home of 49% of Quebec's population, the Montreal region offers the greatest economic potential for the province's residents.¹¹ Furthermore, the city has become a centre for excellence in aerospace, engineering, technology and gaming. With 83% of the province's R&D conducted in Montreal, the city attracts a diverse and multicultural workforce.¹² In fact, Montreal attracted more than 45,000 new immigrants in 2013.¹³

Despite the city's desire to increase its workforce, a significant stumbling block stands in the way of continuing to attract a broad range of people to the technology sector: wage equity. In 2013, the average hourly wage for men working in software development was \$37.60, while the average hourly wage for women in the field was \$36.78.¹⁴ The wage gap is significantly more noticeable for professional engineers; while men received an hourly wage of \$40.30, women received \$4.91 less – an hourly wage of \$35.39. Over the female engineer's lifetime, this gap becomes significant.¹⁵

As the world's 7th largest centre for technology, the city hosts 50,000 technology jobs, 20,000 aerospace jobs, and 33 gaming studios.¹⁶ For Montreal to continue its quest for excellence, such salary disparity must be addressed both by employers and employees.

In order to maintain this position and to grow as a technology leader within Canada and within a global context, the city's leaders strive to foster centres of technology excellence and industrial clusters.¹⁷ Success in these domains requires ongoing attraction and retention of the best and brightest minds – both from within industry and new graduates from the city's universities. With an average of 10,000 residents leaving the city every year,¹⁸ Montreal must repopulate the technology sector by tapping into the valuable immigrant population that make Montreal their home.

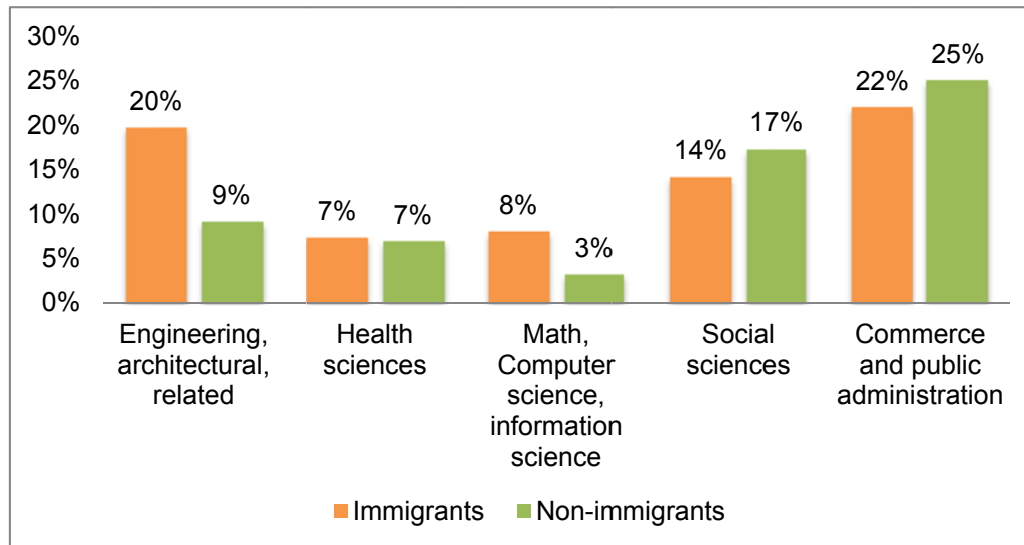
TABLE 2: AVERAGE SALARIES BY PROFESSION IN QUEBEC¹⁹ Note 1 Note_2

Code - Occupation Title CNP	Female Participation Rate %	Both Sexes \$	Avg. Hourly Wage			
			By Gender			
			Female \$	Male \$	Gap	Ratio %
All Professions	42.1	36.78	34.36	38.55	4.19	89.1%
Female Participation Rate						
Female dominant professions	78.0	36.78	36.28	38.58	2.30	94.0%
Professions without gender dominance	56.2	34.93	33.27	37.06	3.79	89.8%
Male dominant professions	20.6	39.01	36.99	39.54	2.55	93.6%
By Occupation (14 of 22 professions in the private sector)						
Predominately female professions						
314 - Prof. - Therapy and Evaluation	91.5	35.28	x	x
511 - Prof. - Library, archives, museums and art galleries	69.5	31.97	31.77	32.43	0.66	98.0%
415 - Prof. - Psychology, social work, counselling, religion and probation	64.8	30.30	30.71	29.55	-1.16	103.9%
411 - Judges, lawyers, notaries	62.3	50.43	49.82	51.45	1.63	96.8%
Professions without gender dominance						
112 - Prof. - Human resource management and business services	56.7	35.86	34.57	37.55	2.98	92.1%
416 - Agents - Policies and programs, researchers and consultants	55.3	37.12	35.04	39.70	4.66	88.3%
212 - Prof. - Life sciences	54.6	32.60	31.58	33.83	2.25	93.3%
512 - Prof. - Editing, translation, public relations	45.4	35.14	31.44	38.22	6.78	82.3%
211 - Physical and natural sciences	45.0	33.30	31.68	34.63	2.95	91.5%
Male dominant professions						
216 - Mathematicians, statisticians, actuaries	35.7	41.14	39.00	42.34	3.34	92.1%
217 - Prof. - Information technology	23.8	37.40	36.78	37.60	0.82	97.8%
215 - Prof. - Architecture, planning and surveying	23.1	35.55	33.70	36.11	2.41	93.3%
214 - Other engineering professionals	16.2	42.11	39.24	42.67	3.43	92.0%
213 - Civil, mechanic, electrical, and chemical engineering	15.8	39.52	35.39	40.30	4.91	87.8%

Note 1: Table is reproduced in English from la institute de la statistique de Québec, *Enquête sur la rémunération globale au Québec, Collecte 2013*. Confidence intervals are not reproduced.

Note 2: Table 2 presents the female participation rate and average hourly wages by occupation of the National Occupational Classification, university completion level, regular fulltime, private companies with over 200 employees.

FIGURE 1.2 POPULATION AGED 25-64 WITH UNIVERSITY DIPLOMA AND IMMIGRANT STATUS, 2011



Source: Statistics Canada, 2011 National Household Survey, Statistics Canada Catalogue no. 99-012-X2011048.²⁰

Note: Due to rounding, totals may not necessarily correspond to the sum of the parts.

Immigration and STEM

Data from the 2011 National Household Survey reveal that in Canada and in its Metropolitan areas immigrants constitute an important share of STEM degree holders. As observed below in Canada in 2011 some 37.4% of all STEM degree holders in the labour force were foreign-born. In the Montreal Region in the same category some 36.2% are foreign-born.

TABLE 3: STEM DEGREE HOLDERS IN THE LABOUR FORCE IN CANADA AND MONTREAL

2011	Canada	Montreal
Total	2,124,415	282,615
Non-immigrants	1,284,645	172,385
Immigrants	794,100	102,140
Before 1971	53,780	5,415
1971 to 1980	83,495	9,670
1981 to 1990	115,540	13,560
1991 to 2000	234,945	24,995
2001 to 2011	306,350	48,500
2001 to 2005	164,970	23,330
2006 to 2011	141,375	25,165
Non-permanent residents	45,665	8,090

Source: Special Tabulations, Catalogue no. 99-012-X2011043, Statistics Canada, National Household Survey, 2011

As observed below in Montreal women aged 25-34 have higher rates of unemployment than men across all STEM fields of study. The gap is especially wide in the field of mathematics and computer science.

TABLE 4: MONTREAL UNEMPLOYMENT RATE BY SEX FOR 25-34 YEAR OLDS, STEM FIELDS OF STUDY, 2011

	Both Sexes	Male	Female
Total	7.4	7.7	7.1
STEM fields of study	6.7	5.9	8.8
Science	8.0	7.3	8.6
Technology, except engineering technology	6.0	5.6	6.3
Engineering and engineering technology	6.1	5.8	7.6
Mathematics and computer sciences	6.8	5.7	10.7
Other fields of study (Non-STEM)	6.1	6.6	5.7

Source: Special Tabulations, Catalogue no. 99-012-X2011043, Statistics Canada, National Household Survey, 2011

There is evidence to suggest that in Montreal much of the employment gap amongst STEM degree holders is a function of immigrant status. There is a considerable gap amongst immigrant and non-immigrant STEM degree holders and it is especially pronounced for immigrant and non-immigrant women. As observed below amongst Canadian-born men and women age 25-34 residing in the Montreal region the rate of unemployment is not substantial. The gap however amongst immigrants with a STEM degree in that same age cohort that arrived over the past decade. The table below does suggest that over the duration of stay the gap in rates of unemployment for STEM degree holders narrows.

TABLE 5: MONTREAL UNEMPLOYMENT RATE BY SEX AND IMMIGRANT STATUS FOR 25-34 YEAR OLDS, STEM FIELDS OF STUDY

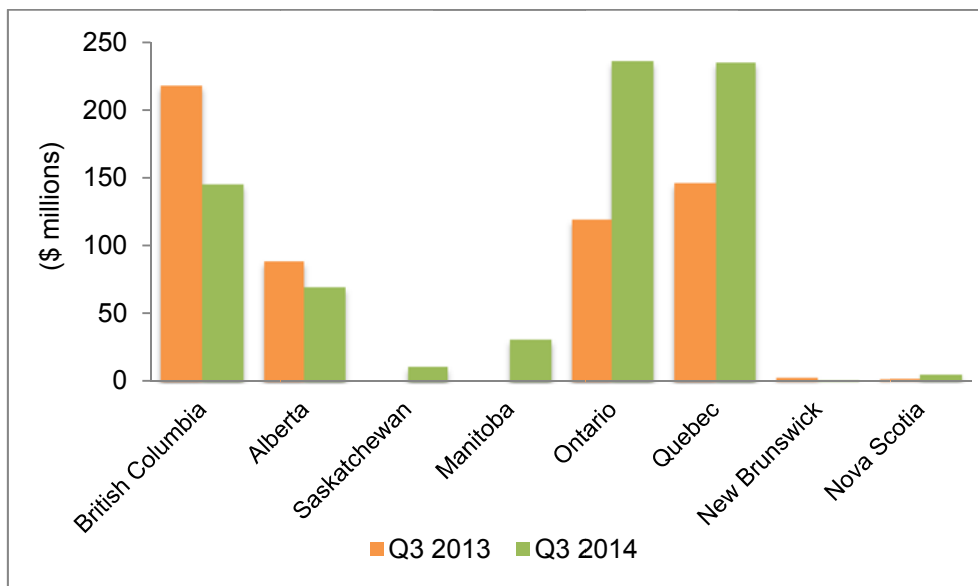
	Both Sexes	Male	Female
Total	6.7	5.9	8.8
Non-immigrants	4.1	4.0	4.4
Immigrants	11.7	9.9	15.9
1981 to 1990	5.1	5.1	4.8
1991 to 2000	8.4	8.0	9.1
2001 to 2011	14.0	11.6	19.3
2001 to 2005	7.7	6.6	9.8
2006 to 2011	16.2	13.2	23.0
Non-permanent residents	8.8	7.6	12.3

Source: Special Tabulations, Catalogue no. 99-012-X2011043, Statistics Canada, National Household Survey, 2011

While Quebec’s immigration patterns are complex and multifaceted, a proportion of migrants choose to conduct business in Quebec as a result of the province’s business-positive policies. The Government of Quebec’s Innovatech initiative committed \$80 million in funding to technology companies, while partners promised \$100 million to help set-up a tech fund and accelerator, create centres of excellence and instate outreach initiatives to attract investment and interest from Europe.²¹

With low operating costs, tax benefits for new enterprises and 25% growth in the high tech sector from 2002 – 2012, Montreal offers great potential for start-ups in the high tech domain.²²

FIGURE 1.3 REGIONAL DISTRIBUTION OF VC INVESTMENT

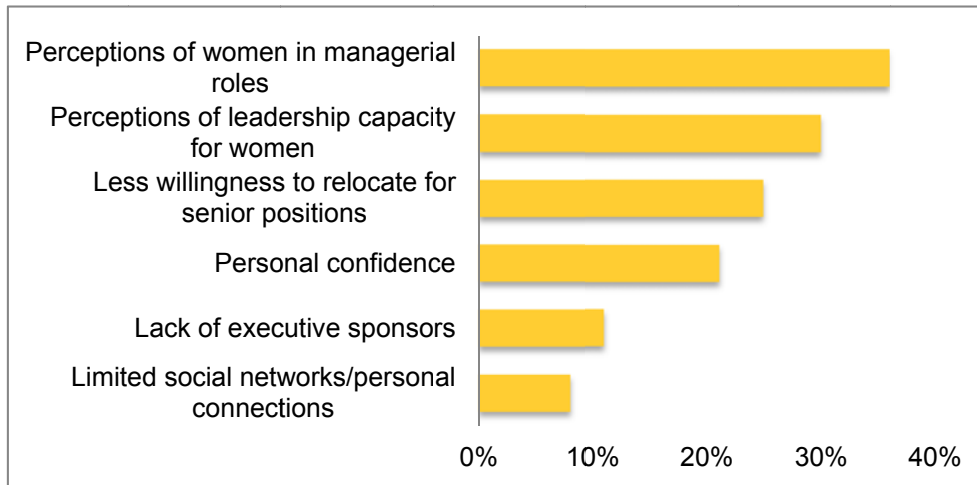


Source: Venture Capital Monitor, Q3 2014 SME Research and Statistics 2014, Industry Canada.²³

Venture Capital (VC) investment in Quebec has grown exponentially year-over-year; Quebec experienced a 33% increase in VC deals from the third quarter of 2013 to third quarter of 2014.²⁴ Investors appear to be looking to Quebec’s technology community with a sense of optimism and a clear belief in the community’s promise for growth.

In its annual *Women Shaping Business* report, employment agency Randstad showed that women fail to advance to senior positions in business due to a number of limiting biases and perceptions. Among these, respondents believed that women were limited by the perception of women in managerial roles and that the perceived leadership capacity of women restricted upward mobility in the workforce.²⁵

FIGURE 1.4 PERCEIVED FACTORS THAT PREVENT WOMEN FROM ADVANCING TO SENIOR ROLES



n=1,004

Source: Women Shaping Business: Challenges and Opportunities 2014 November 2014 Randstad²⁶

Gender has become a productivity issue in technology workplaces. In fact, studies of stock performance show that in a like-for-like comparison, companies with at least one woman on the board outperformed those companies with no women on the board by 26% over the course of the last six years.²⁷ Furthermore, successful start-ups have twice as many women in senior positions²⁸ while data shows that start-ups use 40% less capital when women lead. These woman-led start-ups also have a higher probability of survival.²⁹

Instead of jumping at the opportunity to work in established technology workplaces, more than 52% of women in private-sector science and tech jobs drop out of the workforce without returning.³⁰ This is higher than the private sector average; 37% of US women in professional roles voluntarily "off-ramp", or leave the workforce, at some point in their careers.³¹ For women with children, the figure rises to 43%.³²

Women who off-ramp do so for only a limited time, on average about 2.2 years. They do not intend to give up their careers for good, but they find it very difficult to re-enter the workforce. 93% of highly qualified women who stop working want to return to their careers, but only 74% are able to find employment.³³ Furthermore, women who chose to off-ramp then re-enter the workforce earn 18% less than peers who stay in the workforce without a break.³⁴

According to a study conducted at the University of North Carolina at Greensboro, women step off the traditional career path to seek challenge and self-fulfilment. These women consider personal growth to be the primary success factor in their entrepreneurial endeavours.³⁵ As such, entrepreneurship becomes a life strategy. For women who are unable to re-enter the workforce after off-ramping, entrepreneurship offers the potential for self-determination, professional growth and personal satisfaction. While entrepreneurship may inhibit earning power in the short term, studies show women consider this to be secondary to personal fulfillment – making entrepreneurship an attractive proposition.³⁶

SURVEY RESULTS

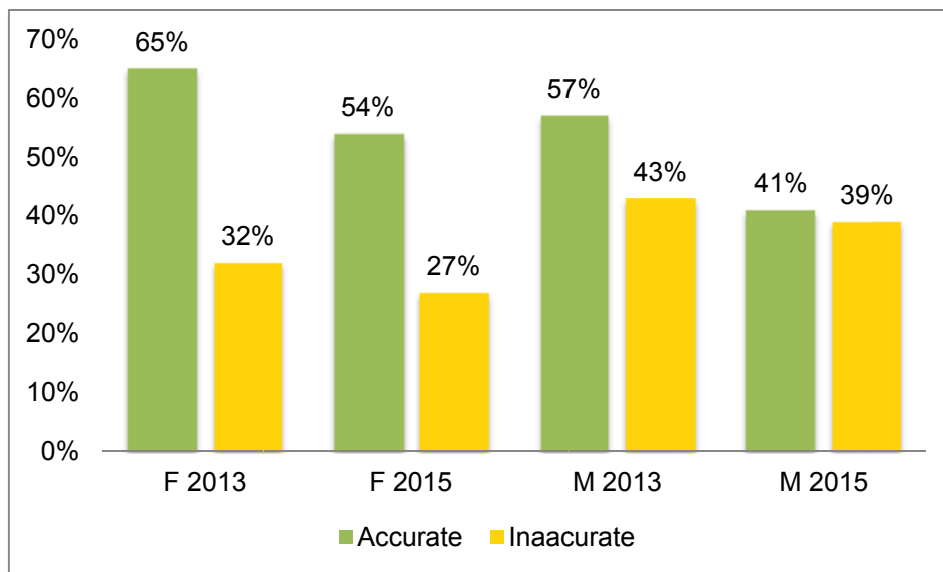
YES Survey Respondents Perceptions

To provide insight into issues that are especially relevant to gender differences, in this section we will review the findings of the survey administered to stakeholders in the technology field: employers and employees, job seekers, entrepreneurs, and students studying towards a degree in STEM.

Socialization Processes

When asked if “boys and girls receive different levels of encouragement in science and math in primary and secondary school”, 54% of women and 41% of men indicated they believed the statement to be accurate in 2015. Both genders rated this statement to be less accurate in 2015 compared to 2013, when 65% of women and 57% of men indicated they believed the statement to be true.

FIGURE 2.2 SURVEY RESPONDENTS – 2013 & 2015 BOYS AND GIRLS RECEIVE DIFFERENT LEVELS OF ENCOURAGEMENT IN SCIENCE AND MATH IN PRIMARY AND SECONDARY SCHOOL



n=450 & 345

Question: Boys and girls receive different levels of encouragement in science and math in primary and secondary school. Breakdown excludes respondents who chose not to answer.

Source: YES Women in Technology online survey, February 2015 & April 2013.

In primary and secondary school, science and math are thought to be designed to appeal to boys, while arts and language are taught in a style that appeals to girls. Case study interviews indicate that teachers and parents are also more likely to encourage boys to work hard in science and math, while less emphasis is placed on the importance of girls succeeding in these subjects. In some cases, women were actually dissuaded from pursuing math beyond the basic requirements in high school.

Careers in Technology

The 2015 survey responses provide a sense of optimism. While the number of women with careers in technology dropped by 4% in 2015, the drop represents an increase in the number of women self-employed in a technology start-up (17% in 2015), aspiring to own a technology start-up (6% in 2015) and aspiring for a career in technology (14% in 2015).

The strength of the Montreal start-up community has made an impact on case study participants. Some 50% of these participants indicated they were entrepreneurs. Eight of these participants indicated that they work for themselves in a start-up, while two participants indicated they hold a full-time job in fields other than technology while developing their start-up ideas. Two of the full-time entrepreneurs indicated they were involved in a technology incubator and had moved to Montreal specifically to work on their product idea. Particularly for those women involved in YES's WIT program, entrepreneurship is a significant draw away from the traditional workforce.

According to the 2015 data, 61% of respondents had fewer than 4 years' experience in the technology sector. This data suggests that more and more women may be choosing careers in technology; it will take more time to understand if these same women stay in the sector for long periods of time.

Especially amongst the 2015 respondents, the number of women with more than 10 years' experience in the technology sector has decreased year-over-year. Only 18% of female respondents in 2015 indicated they had over a decade of experience. While there were more female respondents with 10 or more years in the technology sector in 2013, a similar 'fall out' trend occurs for women – but amongst women with more than 16 years' experience. Given the maturity of the sector, few women may have had the opportunity to accrue 16+ years of experience. Alternatively, women with this level of workforce tenure may have taken another path at this point in their career.

Another notable dip took place for women with between 4 – 10 years technology sector experience. In both 2013 and 2015, the data shows a sudden drop-off for female participation in the sector. This gap may be associated with a number of factors. First, women frequently 'off-ramp' during childbearing years; the dip in respondents with mid-range career experience may suggest women are taking time with family post childbirth. Second, women who change focus mid-career may also explain this gap.

In fact, 60% of 2015 survey respondents indicated that they switched careers since entering the workforce. With dynamic career prospects and rapid rates of growth in the technology sector, women are choosing to transition to a technology career after they have established themselves in the workforce.

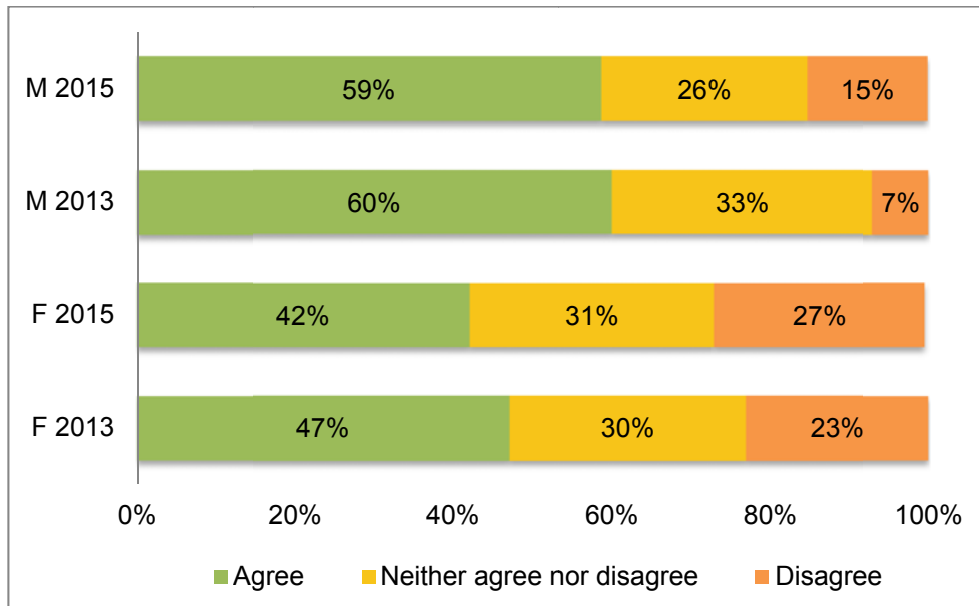
Further to this point, half of all case study participants indicated that they had worked outside the technology sector before transitioning into a technology sector career. These participants had worked for between 4 and 15 years before quitting their former occupations and embarking on a career in technology. The other half

of case study participants indicated that they had only ever worked in the technology sector. This data suggests that the technology sector has great drawing power; both women with workplace experience and women new to the workforce wish to find success and employment in the technology sector.

Workplace Culture

A disconnect persists in what men and women believe about wage equity. In 2013, 60% of men believed salary inequities had improved over the past 10 years, while 47% of women agree with the same statement. In 2015, 59% of men believed salary inequities have improved over the past 10 years, while 42% of women agree with the same statement.

FIGURE 2.3 SURVEY RESPONDENTS – 2013 & 2015 IN THE LAST DECADE THERE HAS BEEN SOME IMPROVEMENT IN ADDRESSING SALARY INEQUITIES BETWEEN MEN AND WOMEN?



n=298 & 345

Question: In the last decade there has been some improvement in addressing salary inequities between men and women?

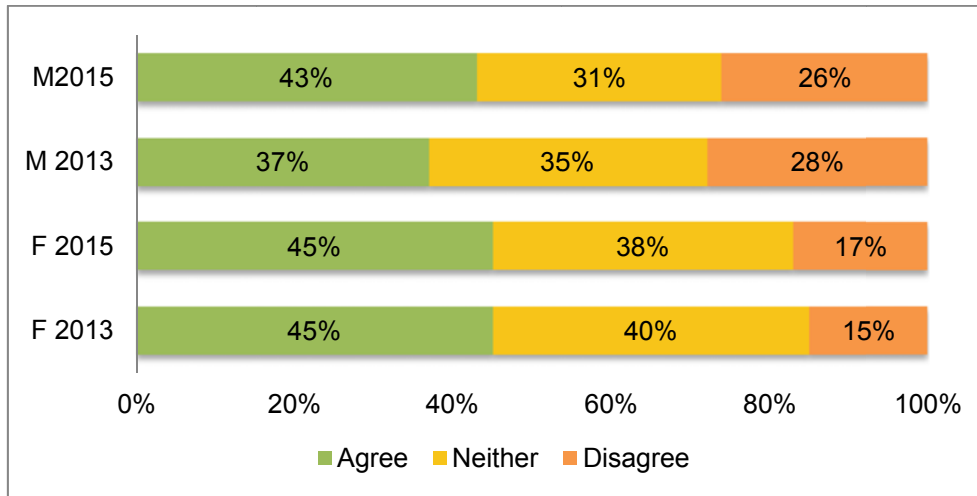
Breakdown *excludes* respondents who chose not to answer.

Source: YES Women in Technology online survey, February 2015 & April 2013.

The proportion of men who disagreed with the statement grew significantly in 2015. 15% of men disagreed that salary inequities between men and women had improved over the last decade. Only 7% of men disagreed in 2013. This shift suggests that media stories and education campaigns are impacting both men and women, thereby helping them to understand that workforce issues, like salary equity, still require attention.

Respondents in both 2015 and 2013 indicated uncertainty about pay equity. Approximately one-third of male and two-fifths of female respondents indicated they neither agreed nor disagreed with the statement 'My male colleagues receive better compensation than my female colleagues' across survey years.

FIGURE 2.4 SURVEY RESPONDENTS – 2013 & 2015 MY MALE COLLEAGUES RECEIVE BETTER COMPENSATION THAN MY FEMALE COLLEAGUES

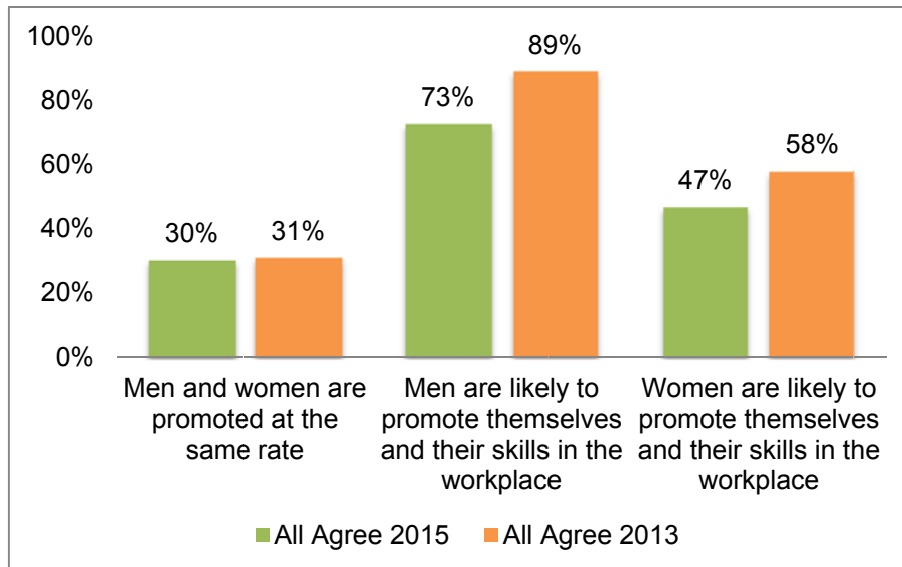


n=298 & 345

Question: My male colleagues receive better compensation than my female colleagues
Breakdown *excludes* respondents who chose not to answer.

Source: YES Women in Technology online survey, February 2015 & April 2013.

**FIGURE 2.5 SURVEY RESPONDENTS – 2015 & 2013
WOMEN ARE LIKELY TO PROMOTE THEMSELVES AND THEIR SKILLS
MEN ARE LIKELY TO PROMOTE THEMSELVES AND THEIR SKILLS
MEN ARE MORE FREQUENTLY PROMOTED THAN WOMEN**



n=298 & 345

Question: Women are likely to promote themselves and their skills; Men are likely to promote themselves and their skills; Men are more frequently promoted than women
Breakdown *excludes respondents who chose not to answer*.

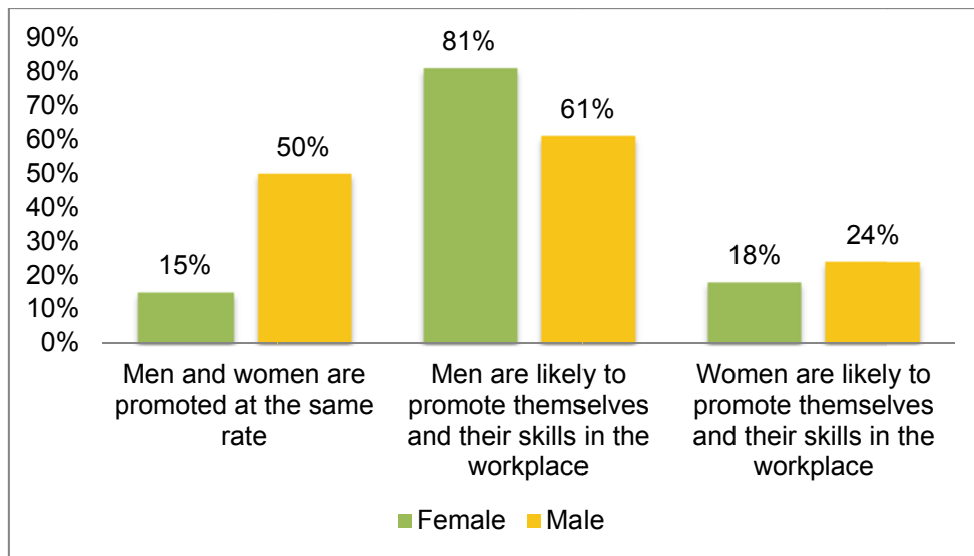
Source: YES Women in Technology online survey, February 2015 & April 2013.

Less than half (45%) of female survey respondents agreed that “Men and women are promoted at the same rate” in both 2013 and again in 2015. For men, this percentage increased between survey years, from 37% to 43%.

The number of respondents who believe “Men are likely to promote themselves and their skills in the workplace” dropped by 16% from 2013 to 2015. Similarly, the number of respondents who believe women are likely to promote themselves and their skills in the workplace dropped by 11%.

While both sexes agree that men are more likely to self-promote than women, there is a wide disparity in views on the rate at which women are promoted and on the likelihood of women to self-promote.

FIGURE 2.6 SURVEY RESPONDENTS – 2015 MALE AND FEMALE RESPONDENTS
WOMEN ARE LIKELY TO PROMOTE THEMSELVES AND THEIR SKILLS
Men are likely to promote themselves and their skills
Men are more frequently promoted than women



n=298

Question: Women are likely to promote themselves and their skills; Men are likely to promote themselves and their skills; Men are more frequently promoted than women

Breakdown excludes respondents who chose not to answer

Source: YES Women in Technology online survey, February 2015

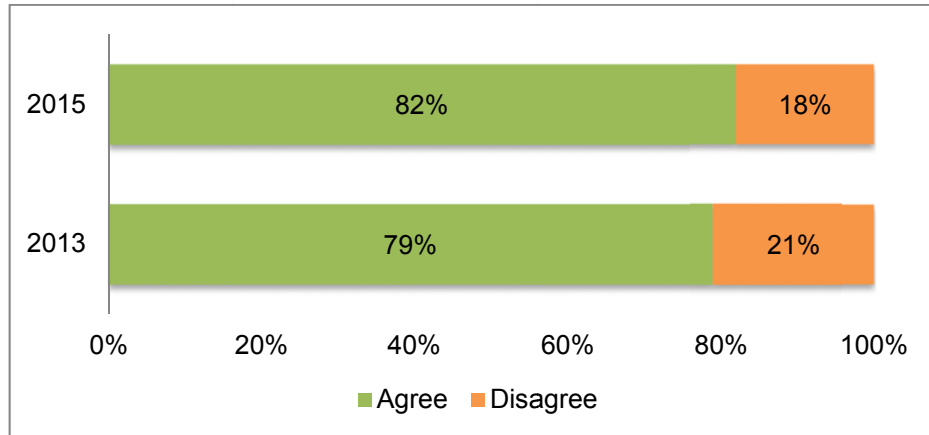
In 2015, only 15% of women indicated that men and women are promoted at the same rate. This is an astounding 35% less than the number of men who agree that men and women are promoted at the same rate. This data indicates that neither sex understands the terms under which their peers are promoted. On the other hand, 81% of women felt men are likely to promote themselves vs. 61% of men.

Even career-oriented women are known for their modest approach to their skills and experience. As such, only 18% of female respondents agreed that women are likely to promote themselves and their skills in the workplace. 24% of male respondents agree that women are likely to self-promote in the workplace.

Evidently, the sexes do not share an outlook on how women and men self-promote in the workplace.

In both 2013 and 2015, respondents indicated that their technology workplaces were predominantly male. 82% and 79% of respondents respectively agreed with this statement in 2015 and 2013.

FIGURE 2.7 SURVEY RESPONDENTS – 2015 & 2013 MY WORKPLACE IS MOSTLY MALE



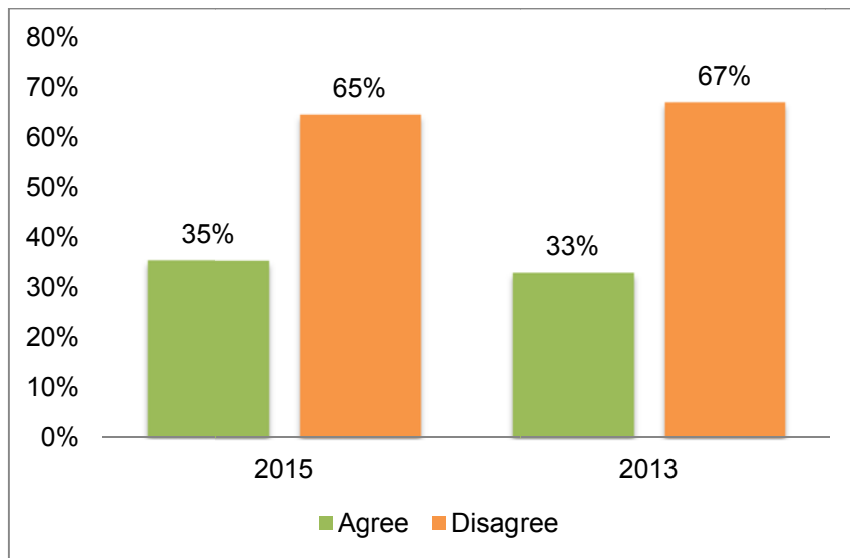
n=298 & 345

Question: My workplace is mostly male

Breakdown *excludes respondents who chose not to answer.*

Source: YES Women in Technology online survey, February 2015 & April 2013.

FIGURE 2.8 SURVEY RESPONDENTS – 2015 & 2013 MY MALE COLLEAGUES SOCIALISE WITH MEN, AND MY FEMALE COLLEAGUES SOCIALISE WITH WOMEN



n=298 & 345

Question: My male colleague socialise with men, and my females colleagues socialise with women

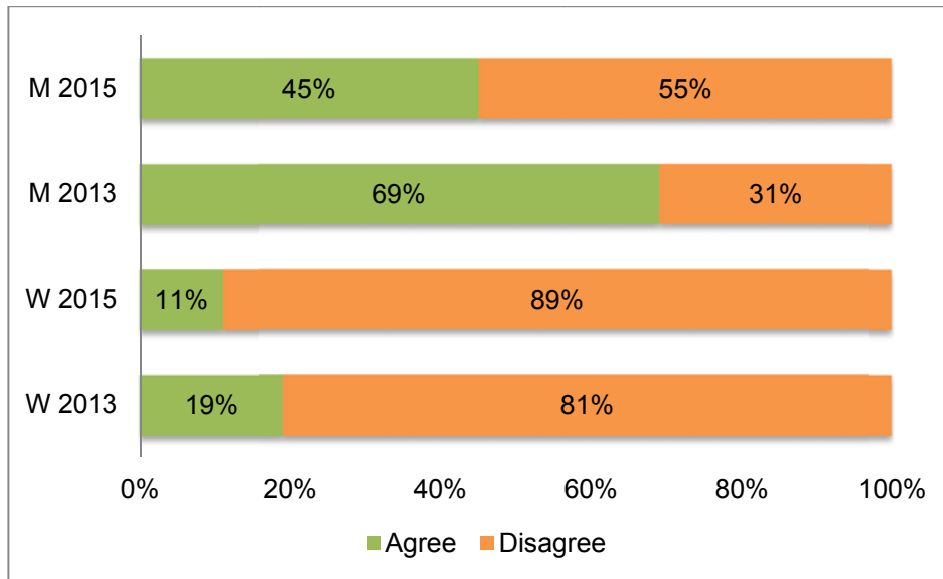
Breakdown *excludes respondents who chose not to answer.*

Source: YES Women in Technology online survey, February 2015 & April 2013.

In part, biases can be broken down through socialisation between the genders in the workplace. In 2015, 65% of respondents indicated men and women socialise at work. Harmonious social relationships can also promote a healthy and open work atmosphere, where individuals openly express their opinions. Over time, exposure to these opinions can help to reshape bias. However, exclusionary behaviours and expectations may prevent valuable socialisation from occurring.

A sense of exclusion in the workplace may stem from corporate approaches to diversity. When asked: “Technology companies spend adequate time addressing diversity”, 89% of women disagreed – up 8% from 2013. 45% of men agreed with the statement, leaving a notable gap between each gender’s perceptions of what ‘adequate’ attention to diversity consists of.

FIGURE 2.9 SURVEY RESPONDENTS – 2013 & 2015 TECHNOLOGY COMPANIES SPEND ADEQUATE TIME ADDRESSING DIVERSITY



n=298 & 345

Question: Technology companies spend adequate time on diversity

Breakdown *excludes respondents who chose not to answer.*

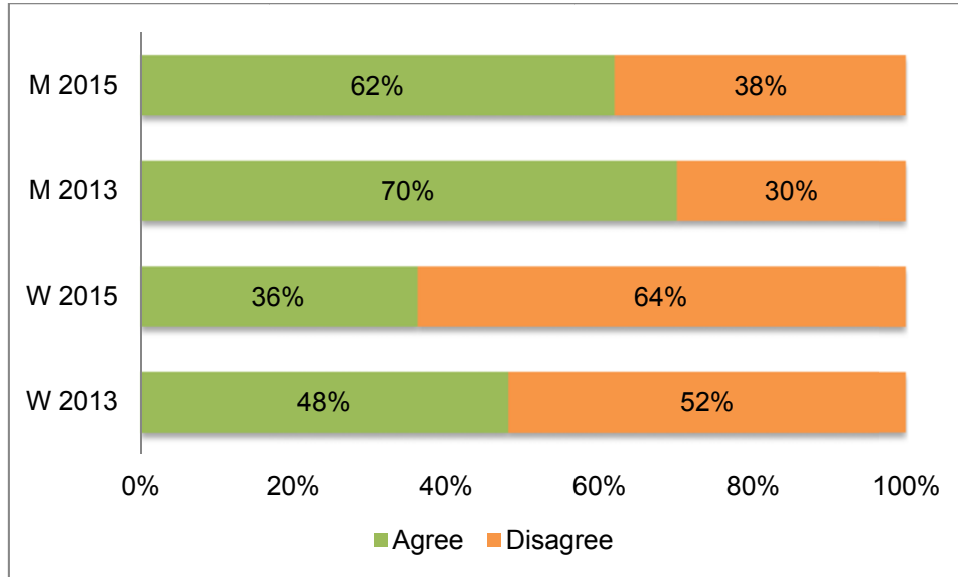
Source: YES Women in Technology online survey, February 2015 & April 2013.

The disconnect on the subject of gender equity becomes even more apparent when men and women were asked if they agree or disagree with the statement “men and women have the same opportunities in Science and Technology”.

While 64% of women disagreed with the statement ‘men and women have the same opportunities in technology’, 62% of men believed the statement to be true.

This sentiment was echoed throughout the case study interviews; women who worked in large tech corporations stated that while diversity policies were in place, they were for the most part ineffective and merely masked deeper-rooted issues.

FIGURE 2.10 SURVEY RESPONDENTS – 2013 & 2015 MEN AND WOMEN HAVE THE SAME OPPORTUNITIES IN SCIENCE AND TECHNOLOGY

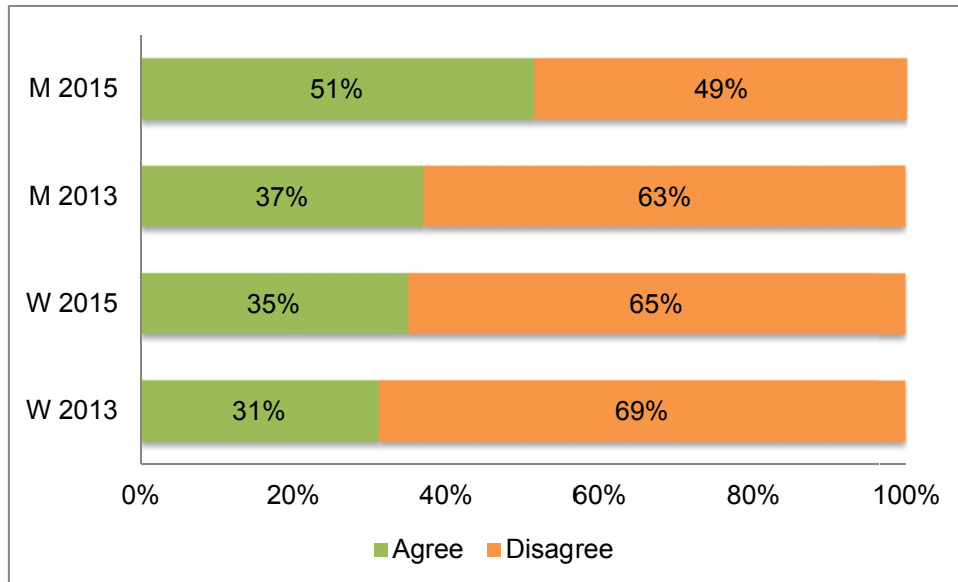


n=298 & 345

Question: Men and women have the same opportunities to succeed in Science & Technology
 Breakdown *excludes respondents who chose not to answer.*

Source: YES Women in Technology online survey, February 2015 & April 2013.

FIGURE 2.11 SURVEY RESPONDENTS – 2013 & 2015 MENTORS AND ROLE MODELS ARE READILY AVAILABLE FOR WOMEN IN THE WORKPLACE



n=298 & 345

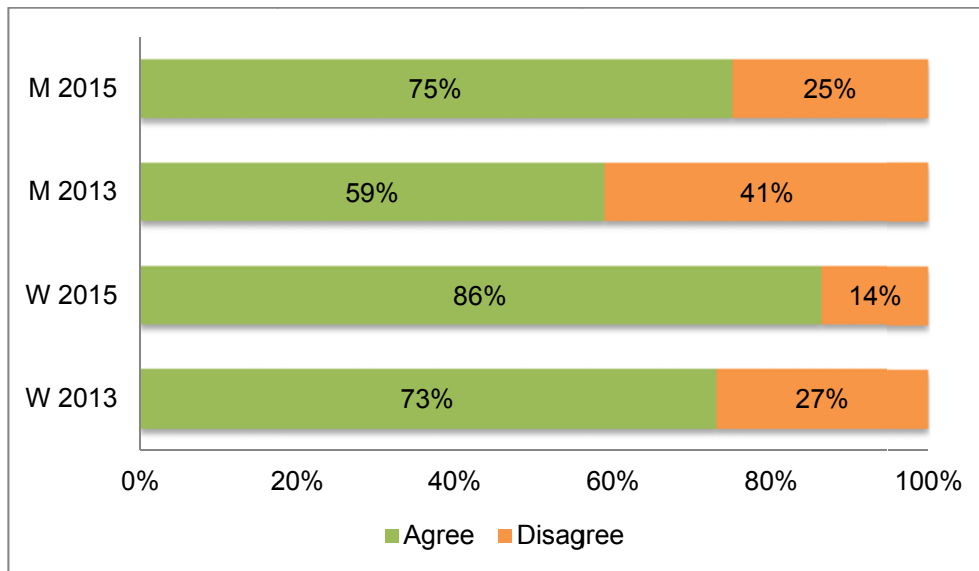
Question: Mentors and role models are readily available for women in the workplace
 Breakdown *excludes respondents who chose not to answer.*

Source: YES Women in Technology online survey, February 2015 & April 2013.

In 2015, the percentage of men that believed that mentors and role models are readily available for *women* in the workplace increased by 14%. The percentage of women that agreed also increased – but at a much less significant rate: 4%. This data could indicate that awareness about the lack of mentors is increasing, and that workplace programs are adapting to address the needs of male and female personnel alike.

Alternatively, men and women alike believed that mentors and role models are readily available for *men* in the workplace. Some 16% more men agreed with this statement in 2015 than 2013. In 2015, there was a modest increase in the percentage of women who agreed with this statement. Despite this shift in opinion, an obvious gap exists: both men and women require mentors and role models.

FIGURE 2.12 SURVEY RESPONDENTS – 2013 & 2015 MENTORS AND ROLE MODELS ARE READILY AVAILABLE FOR MEN IN THE WORKPLACE



n=298 & 345

Question: Mentors and role models are readily available for men in the workplace

Breakdown excludes respondents who chose not to answer

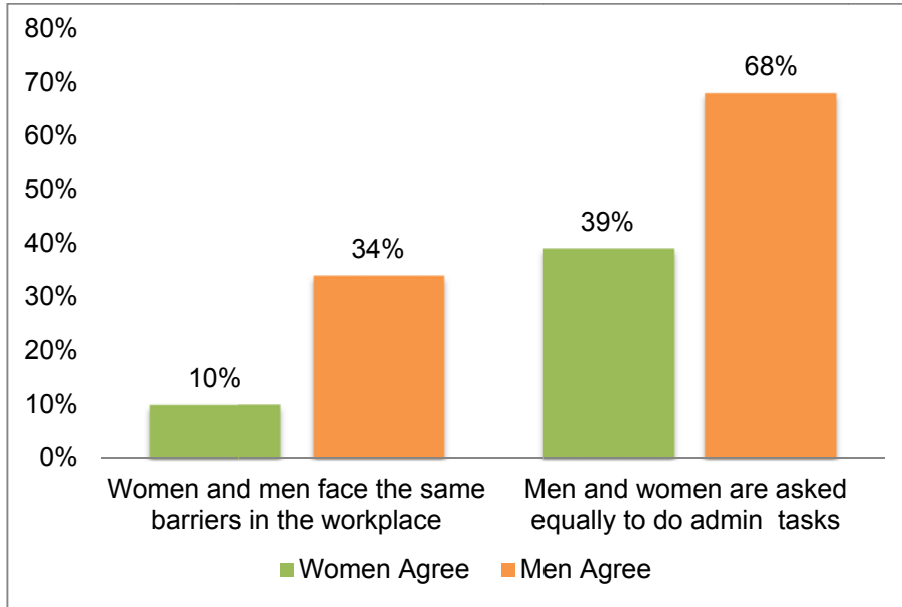
Source: YES Women in Technology online survey, February 2015 & April 2013.

In 2015, 90% of women disagreed that women and men face the same barriers in the workplace (87% in 2013, data not shown). This is a stark contrast to the 34% of men who agreed that women and men face the same barriers in the workplace (35% in 2013). Both sexes clearly have different experiences in the workplace and perceptions of the work world.

Furthermore, women and men don't see eye-to-eye on who is asked to do the 'office housework'. 61% of women in 2015 (65% of women in 2013) disagreed that men and women are asked equally to do administrative tasks outside the scope of their daily work. For the most part, men believe that men and women are asked equally to undertake administrative tasks. 68% of men in 2015 (77% of men in 2013) agreed with this statement. While 2015 saw a decrease of 9% of men who

agreed with this statement, perception still varies widely between men and women on the matter of administrative work.

FIGURE 2.13 SURVEY RESPONDENTS – 2015
WOMEN AND MEN FACE THE SAME BARRIERS IN THE WORKPLACE
MEN AND WOMEN ARE ASKED EQUALLY TO DO ADMINISTRATIVE TASKS



n=298

Question: Women and men face the same barriers in the workplace,
 Men and women are asked equally to do administrative tasks in the workplace
 Breakdown *excludes respondents who chose not to answer.*

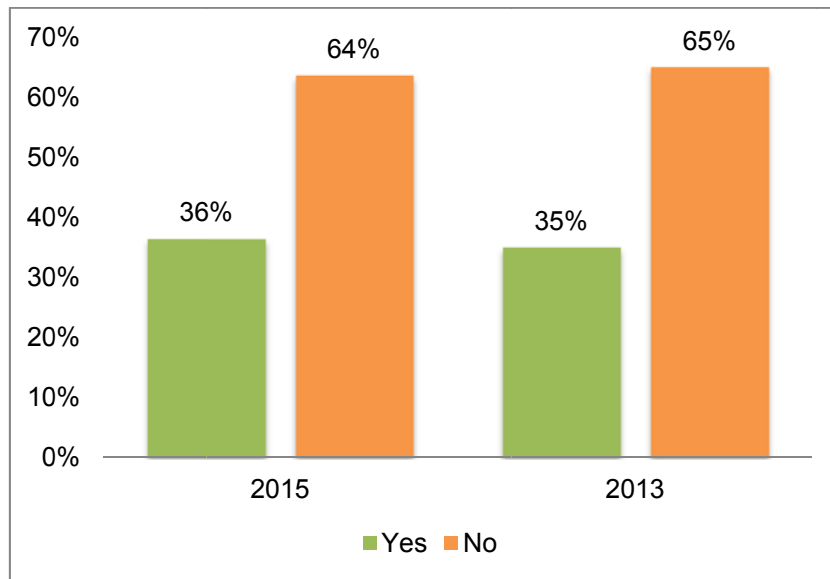
Source: YES Women in Technology online survey, February 2015 & April 2013.

Social Issues Related to the Workplace

Quebec provincial policies enable employees to find a sense of balance between work and social life. Ample opportunity exists for male and female parents to both attend to their children. It is up to the individual, however, to make decisions that are best for them and their family. Career-driven individuals may feel professional pressure to work extra hours to meet tight deadlines or to achieve ambitious revenue objectives. These issues may influence a tech sector employee’s desire to have children.

Less than 1 in 3 technology sector workers surveyed in 2013 had children (64%) and this estimate remained stable for 2015 (65%). While the bulk of parents employed in the technology sector are employed by a third party, 24% either run their own operation – or aspire to do so. 17% of respondents with children indicated that they are self-employed in a technology start-up. Another 7% indicated they aspired to run their own technology start-up.

**FIGURE 2.14 SURVEY RESPONDENTS –
2015 & 2013 TECH SECTOR EMPLOYEES WITH CHILDREN**



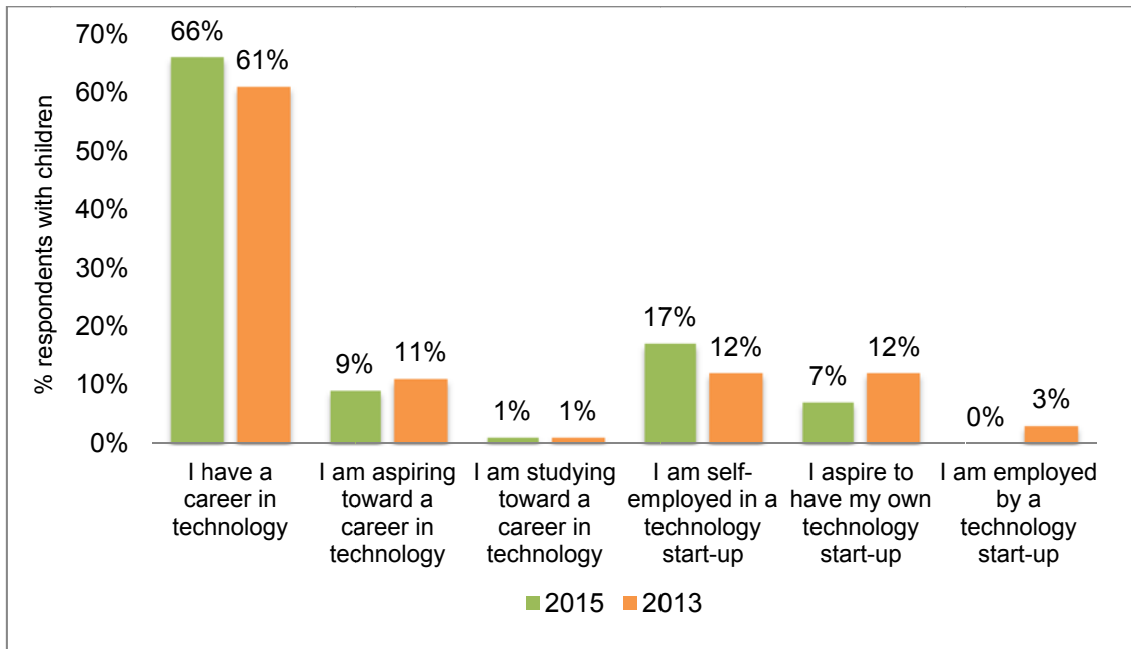
n=298 & 345

Question: Do you have children?

Breakdown *excludes respondents who chose not to answer.*

Source: YES Women in Technology online survey, February 2015 & April 2013.

**FIGURE 2.15 SURVEY RESPONDENTS –
2013 & 2015 RESPONDENTS WITH CHILDREN & DESCRIBE YOUR SITUATION**



n=298 & 345

Question: Do you have children? (*Yes respondents only*), and Describe your situation.

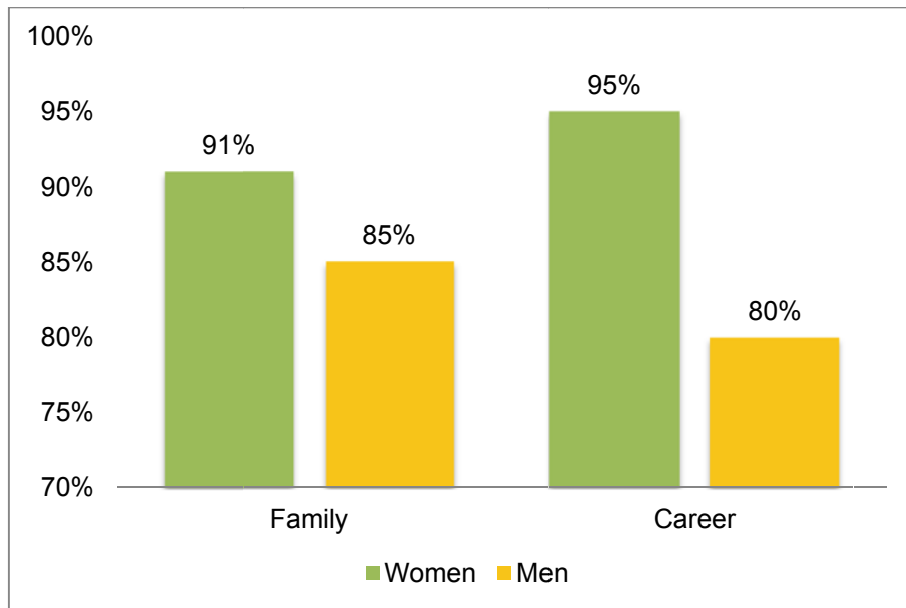
Breakdown *excludes respondents who chose not to answer.*

Source: YES Women in Technology online survey, February 2015 & April 2013.

While the hours and demands of operating an enterprise may be significant, case study interviews with start-up founders and entrepreneurs indicated the freedom afforded by operating their own business and the passion for their role allowed for greater flexibility in childrearing, and was accompanied by a greater sense of reward.

All respondents, both those with children and those without children, indicated that family plays an important role in their lives. In 2015, 91% of women indicated family was important to them compared to 85% of men. The rate of response is consistent with the data from 2013. In 2013, 94% of women and 83% of men indicated family was important. These figures indicate that the majority of the tech sector employees value family life and the time required to dedicate oneself to family.

FIGURE 2.16 SURVEY RESPONDENTS – 2015 HOW IMPORTANT IS CAREER TO YOU & HOW IMPORTANT IS FAMILY TO YOU?



n=298

Question: How important is family to you? How important is career to you?

Breakdown *excludes respondents who chose not to answer*

Source: YES Women in Technology online survey, February 2015 & April 2013.

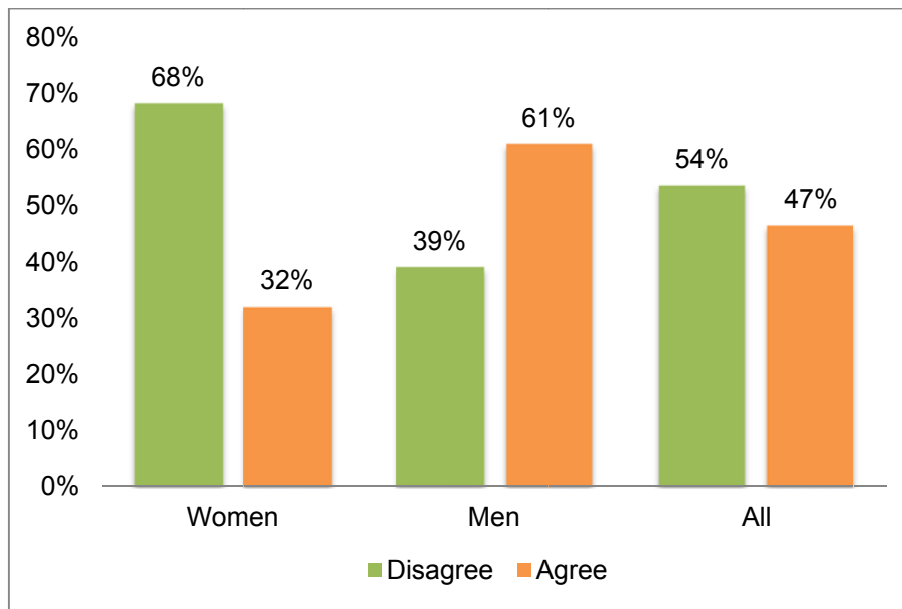
The value of career is paramount to women according to 2015 survey results. 95% of female respondents in 2015 indicated career was important to them. The weight placed on career indicates women value the opportunity to establish themselves in the workplace, earn a salary and feel a sense of personal development.

At the same time, a career-driven woman is almost equally interested in her family relationship. Despite the challenges experienced by female respondents, they continue to strive for a balance between career and family.

In both 2013 and 2015, men demonstrated a greater interest in family than on career. In 2015, 80% of men indicated they were interested in career development – an interest of 5% less than those respondents who stated family was important.

Since both men and women in Quebec’s technology sector value career and family, the ability to attend to family commitments is important to both sexes. Unfortunately, 54% of respondents indicated that men and women are not treated equitably when family commitments arise. In 2015, women were 29% more likely than men to believe that they are treated differently when family a commitment, such as the illness of a child, arises. This is a significant increase from 2013, where 59% of women disagreed that men and women were treated equitably when family commitments arise.

FIGURE 2.17 SURVEY RESPONDENTS – 2015 MEN AND WOMEN ARE TREATED EQUITABLY WHEN FAMILY COMMITMENTS ARISE



n=298

Question: Men and women are treated equitably when family commitments arise

Breakdown *excludes respondents who chose not to answer.*

Source: YES Women in Technology online survey, February 2015.

While awareness of workplace obstacles is growing, a singular issue persistently supports inequity: unconscious bias. Since bias operates beyond the control of the individual, it informs each person’s perception, decision-making and actions at an unconscious level. In order to tackle bias – about the capabilities of each gender, about roles and opportunities – each individual must assess their own assumptions and hold themselves accountable at home, at work and in social interactions. Without personal accountability, bias about gender will continue to exist.

Program Impact: WIT Enterprise Participants

In an effort to level the technology playing field in Montreal, YES Montreal held an inaugural event for aspiring technology sector employees. On March 27th 2014, 21 women seeking employment in technology attended an evening of speed networking along with 20 Montreal technology companies. The event connected qualified women with tech sector employers in an effort to prepare job seekers for the Montreal job market – including a sense of the opportunities in Montreal’s tech sector. The 2014 NetWORK Now event resulted in follow-up interviews for over 50% of participants, 5 job offers and 4 new hires. Three (3) participants were also hired within a month of the event by other companies that were not in attendance at the NetWORK Now event.

One year after the WIT NetWORK Now event, the WIT Enterprise participants provided feedback on their approaches to gender diversity in the workplace.

With only one exception, all twenty participating enterprises said that that their organizations are supporting an ongoing initiative to promote gender diversity in the workplace.

FIGURE 3.1 SURVEY RESPONDENTS - MEN AND WOMEN ARE TREATED EQUITABLY WHEN FAMILY COMMITMENTS ARISE

Describe why your organization is actively seeking female employees.
We think there's a shortage of women in technical roles. We'd like to see more female representation - especially in Development.
It's part of our global corporate goal!
Our company is about 75% women.
Women in gaming are a little rare. We are trying to break that stereotype and show that there is a place for women in gaming. We've gone from 8% of the studio being women in 2012 to 26% to this day.

n=20

Question: Describe why your organization is actively seeking female employees.

Source: YES WIT Enterprise Program Outcome Survey.

Further feedback from the participating enterprises indicated a desire to challenge bias about women as part of corporate objectives and to bolster a corporate culture that embraces gender diversity.

This enterprise-level commitment to gender diversity continued in February 2015, when YES Montreal and SAP Labs Canada joined forces to celebrate female entrepreneurs in technology. The event featured a diverse group of female entrepreneurs pitching their innovative business ideas – everything from e-learning and gaming to travel experience. Six semi-finalists were chosen from a wide range of entrants to pitch their business start-up ideas to a panel of tech experts. The final three contestants were then selected to make their pitch in front of a live audience on February 25, 2015. The panel then choose the finalist – a female tech entrepreneur who developed a customized travel experience app – and awarded her a \$5,000 grant to further develop her technology and bolster Montreal’s unique start-up spirit.

CONCLUSION

With growing interest in the issues facing women in technology, a strong community and voice has evolved over the past few years. Major technology players, such as Apple, Google and Facebook, have released diversity data and openly discussed their efforts and struggles to recruit and maintain women in the workforce. The issue of ‘Women in Technology’ has grown from a niche interest to a mainstream issue - one whose resolution requires ongoing attention.

Over the past three years, significant media, corporate and government attention has been placed on empowering girls so that they may become future female technologists. As such, a wide range of products and services has been made available to children and adults in an effort to facilitate new entrants into the technology market.

Success for STEM education is not limited to young girls. Initiatives targeting women, such as Ladies Learning Code, have seen exponential growth. Introduced as a monthly training session in Toronto, Ladies Learning Code gradually spread nationwide throughout Canada. Ladies Learning Code groups are now present in 19 Canadian regions and 21 cities across Canada, with a community of over 10,000 learners.³⁷

These products and programs, along with a variety of others, are taking the steps to make educational and social changes that will impact girls and women throughout their lives. These initiatives fight against a series of biases that establish what is ‘acceptable’ and ‘normal’ for girls and women.

The underrepresentation of Women in Science, Technology, Engineering and Math (STEM) roles plagues industry, academia, not-for-profits and government alike. The imbalance between men and women in STEM is rooted in the very fabric of society, ranging from cultural bias to educational norms to workplace priorities.

During the course of this three-year Gender Based Analysis, notable changes have taken place within Montreal’s technology sector. Since 2013, more technology businesses have opened their doors, greater venture capital investment has been made in the tech community and the number of available tech sector positions has grown. In response, both women and men alike have migrated to the sector. In fact, Montreal has seen an increase in the number of female participants who have switched careers mid-stream to work in the technology sector. This indicates great interest in the sector’s potential for personal and professional growth.

While the sector has been growing, bias about roles within the sector continues to exist. Men tend to underestimate the barriers faced by women in the workplace. Ranging from salary inequity to the availability of mentors to opportunities within the sector, progress has been occurring very gradually. As campaigns to increase diversity in technology workplaces grow these biases should be reduced in parallel.

Despite these unconscious biases, women are forging ahead in Montreal’s technology sector. Increasingly, women are graduating from STEM degrees and are launching their own technology businesses. The success of these start-ups can

be observed within any number of participant groups within the YES Montreal WIT program; from case study participants to workshop/coaching/counselling participants and enterprise-level engagements. Below we offer a number of recommendations aimed at further levelling the playing field in the STEM occupations.

RECOMMENDATIONS

The combination of the literature review and the primary data collection indicates the following issues should be addressed:

- Availability of mentorship to support aspiring women in technology. Partnerships with successful women and men can provide affirmation to developing professional women in search of guidance
- Encouragement of entrepreneurship amongst women. Support their efforts with legal, financial and operational expertise.
- Ensure the removal of obstacles for immigrants to enter STEM occupations and notably for immigrant women
- Identify means for addressing the recognition of credentials for immigrant that seek employment in STEM occupations

YES puts forth the following recommendations to remove barriers for women establishing careers in the tech industry:

Breaking down bias in the workplace:

- Encourage pay equity in all technology sector careers.
- Work with Montreal's technology sector to encourage greater diversity and inclusion.
- Create a workplace culture that encourages the re-integration of mid-career women post childbirth.
- Conduct bias education workshops in cooperation with Montreal employers. Raise awareness about the perspectives that challenge gender diversity in the workplace.

Encourage entrepreneurship:

- Provide training and funds to support female-led start-ups.
- Provide access to information about setting up small technology businesses. Guidance regarding business planning, accounting, legal and HR issues would greatly assist first-time entrepreneurs.
- Support mid-career women and those with families in the pursuit of technology careers. Services could include helping women to re-enter the workforce in a new capacity or providing the guidance to plan and start a small business.
- Foster start-up growth and educate female founders/entrepreneurs on their options for investment. Offer workshops on financing, mentorship programs with successful start-up founders (male and female) and sponsor dialogue between entrepreneurs and the investment community.

Provide mentorship opportunities:

- Create mentorship programs and networks specifically for female entrepreneurs in technology. Allow women to learn from one another and access a forum for exchange and support.
- Implement a WIT mentorship program. Match female job seekers and entrepreneurs with Quebec-based business professionals.

Provide a welcoming educational environment:

- Continue to work with educators to address the state of women's technological education that include teachers and faculty at all levels of the education sector.
- Establish the importance of technology careers throughout the lifecycle of education.
- Build confidence in STEM at an early age. Provide girls and boys alike with the opportunities to learn about creating and fostering supportive, collaborative technology workplaces.
- Create in-school mentorship programs; allow children interested in STEM to interact with like-minded adults employed in the sector.

END NOTES

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