WHERE ARE THE WOMEN IN THE CANADIAN ICT INDUSTRY?

JULY 2018

In 2016, Women in Communications and Technology (WCT) released its first Up the Numbers Report to establish where women are in Canada's information and communications technology industry. WCT also made a commitment to report annually on gender statistics in the digital economy.

Last year's report presented a flat-line depiction of women's engagement in Canadian ICT frozen at between 29.5 per cent and 27 percent between 2011 and 2016. The data for 2017, drawn from the Labour Force Survey, shows very little change in this static picture.

In 2017, the overall engagement of women in Canada's ICT industry was 26.7%, down slightly from 2016 and significantly less than the 29.5% level recorded in 2011.

■ ICT Industry   ■ Digital Economy

29.5%	27.7%	27.0%	27.7%	26.4%	27.0%	26.7%
2011	2012	2013	2014	2015	2016	2017
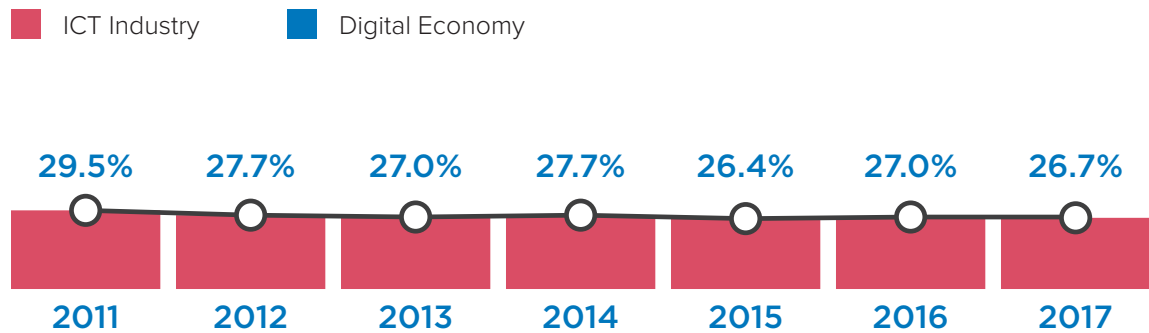
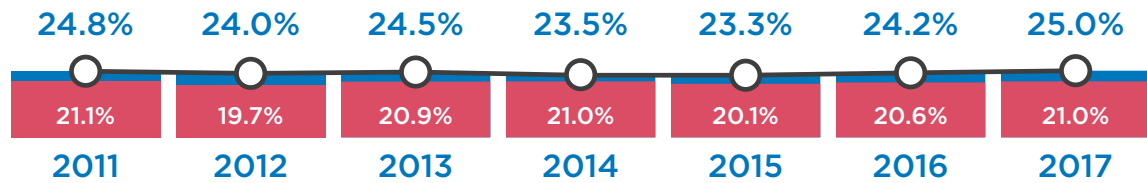**Women in the Canadian ICT Industry 2011-2017**

While women comprise slightly more than a quarter of the ICT industry's overall workforce, they perform only about one fifth of the industry's ICT jobs (such as systems analysts and electronic service technicians)[1].

21.1%	19.7%	20.9%	21.0%	20.1%	20.6%	21.0%
2011	2012	2013	2014	2015	2016	2017
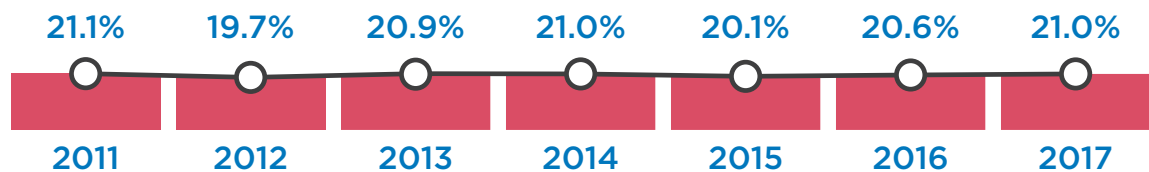
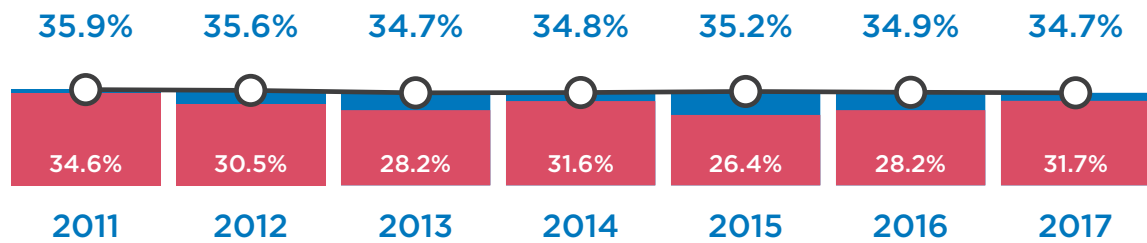**Women in ICT roles in the ICT Sector**

1 Methodological note. The numbers in this report vary slightly from those in our 2016 report. This is attributable to WCT's decision to align our definition of "ICT jobs" with that of our research partner, the Information and Communications Technology Council (ICTC). This definition includes 25 National Occupation Codes (NOCs). This significantly widens the scope of the definition used in 2016 which included only 15 NOCs. The list of these categories is found in the Appendix A. ICTC has drawn the data for this year's Up the Numbers report from monthly Labour Force Survey (LFS) data for the full year. The 2016 report was based on only 9 months of 2016.

Of course, the ICT industry is not the only one that requires the services of systems analysts, electronic service technicians and other ICT professionals. Employees with ICT skills are in demand throughout our modern economy, particularly in data-driven industries such as finance, energy and manufacturing. In 2017, 25% of the people employed in ICT jobs in the broader digital economy were women. This figure has also been relatively static since 2011 and has tracked slightly above the level set by the ICT industry.

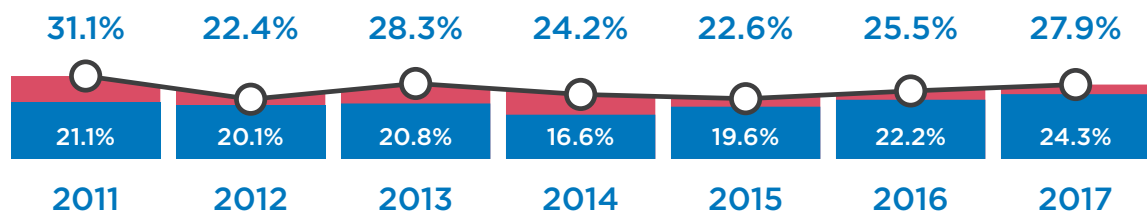| 24.8%	24.0%	24.5%	23.5%	23.3%	24.2%	25.0%
21.1%	19.7%	20.9%	21.0%	20.1%	20.6%	21.0%
2011	2012	2013	2014	2015	2016	2017

Women in ICT jobs in the Digital Economy Compared with Women in ICT Jobs in the ICT Sector

Labour Force Survey also tracks the rate of women in management roles in the economy and in specific sectors. In the Canadian economy, women have held roughly one third of management jobs since 2011. In the ICT industry they are employed as managers at slightly lower rate, though it is encouraging to see the gap narrow, reaching 31.7% in 2017.

35.9%	35.6%	34.7%	34.8%	35.2%	34.9%	34.7%
34.6%	30.5%	28.2%	31.6%	26.4%	28.2%	31.7%
2011	2012	2013	2014	2015	2016	2017

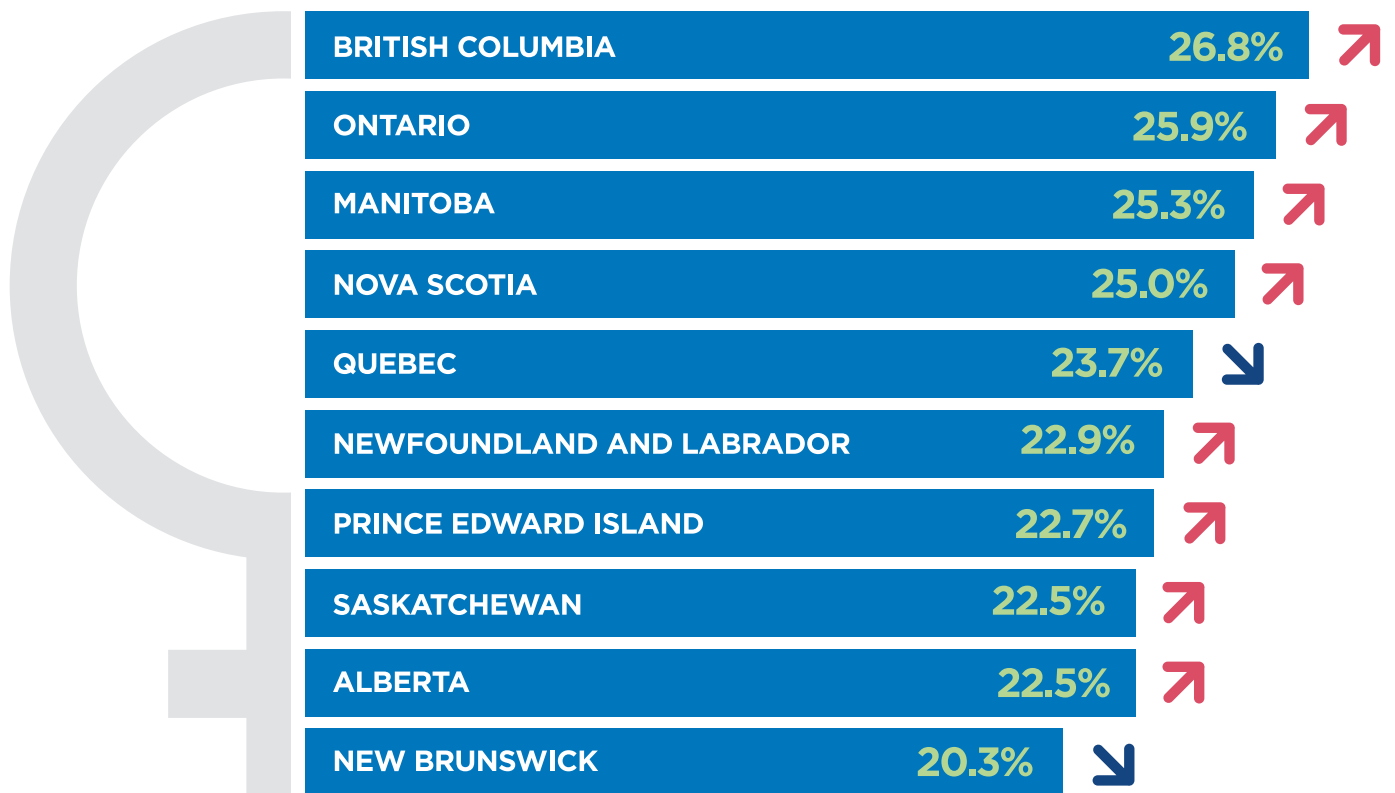**Women in Management in the Economy Compared with Women in Management in the ICT Industry**

The broader data set of national occupational categories presents a more positive picture of women in management in ICT roles that we had in our 2016 report. Women's engagement in technical management in the ICT sector has hovered around the level of 27.9%. The expansion of the data set this year also illustrates that the ICT industry engages women in management of ICT functions at a higher rate than the broader digital economy.

31.1%	22.4%	28.3%	24.2%	22.6%	25.5%	27.9%
21.1%	20.1%	20.8%	16.6%	19.6%	22.2%	24.3%
2011	2012	2013	2014	2015	2016	2017

Women in Management in ICT Jobs in the ICT Industry Compared with Women in Management in ICT Jobs in the Digital economy

The chart below illustrates that across Canada, the engagement of women in ICT jobs varies slightly from province to province (ranging from 26.8 per cent in British Columbia to 20.3 in New Brunswick) with an upward growth trajectory indicated in all but two provinces.

WOMEN IN ICT JOBS % FOR 2017

Province	%
BRITISH COLUMBIA	26.8%
ONTARIO	25.9%
MANITOBA	25.3%
NOVA SCOTIA	25.0%
QUEBEC	23.7%
NEWFOUNDLAND AND LABRADOR	22.9%
PRINCE EDWARD ISLAND	22.7%
SASKATCHEWAN	22.5%
ALBERTA	22.5%
NEW BRUNSWICK	20.3%

WOMEN IN SENIOR MANAGEMENT IN ICT

The most recent Federal Budget, **Equality + Growth = A Strong Middle Class**, offers a superb illustration of how tracking and reporting gender metrics leads to better-informed decision making and public policy.

One of WCT's missions (and the purpose of our Up the Numbers reports) is to communicate the importance of gender-based analysis – even something as rudimentary as knowing how many women are in the workforce or in technical roles – to our corporate stakeholders.

The Government's first full year of looking at public policy through a gender lens has produced 30 gender equality goals, including achieving gender equality in leadership roles and all levels of decision-making. The Budget calls for more women in senior management positions and more diversity in senior leadership positions. While achieving this goal will be a challenge for all players in the economy, the ICT industry has a particularly long way to go.

While the Labour Force Survey allows us to track female employment levels in the total economy and in management in the ICT industry and in ICT jobs in the broader economy, it offers no insight into where women are in senior management and corporate leadership. This leaves researchers attempting to understand the rate of women's progress into leadership to resort to tools like self-reported surveys or other methods.

WOMEN IN ICT LEADERSHIP ARE RARE

For example, we reviewed the websites of the first 100 companies on the Branham 250 list (considered by many to be the definitive listing of Canada's largest technology companies). Senior leadership is not a uniformly defined term that conforms to titles or National Occupation Codes (NOC). But most companies feature their CEOs and their self-defined senior leaders on their web sites. A scan of those sites gives an indication of where women are in Canadian ICT leadership – or, more appropriately, where they are not.

Among the 100 largest Canadian ICT companies on Branham's list there were five female CEOs and one co-CEO. Senior leadership teams vary in size from as few as three to as many as 18. The total count of leaders in this cohort is 803. It includes 123 women, or 15%. That is a smaller percentage than the 26% of companies that have no women identified on their senior management teams.

Diversity in senior management is an important element in diversifying the larger workforce. For one thing, it signals to the female minority in the tech industry that success and promotion to the highest levels are possible. A female leader in the C-suite or, better yet, the corner office indicates a company in the process of creating a larger place for women and other under-represented groups. She tacitly provides valuable "if you can see me, you can be me" encouragement to the whole female workforce.

And there is increasing evidence that women in senior leadership positions also produce better corporate outcomes. As Minister Morneau noted in his Budget speech, "According to the Centre

for International Governance Innovation, a 1 per cent increase in gender diversity means a 3.8% bump in revenue for companies that actually seek to hire more women. And the results are even better when women are in leadership positions."

Canada's ICT industry needs more women in leadership. Minister Morneau has also expressed a commitment to new investments to provide better gender diversity data. Because of the importance of women in leadership positions, a regular, reliable source for data on this topic, segmented by industry, would advance our progress toward the goal of upping the numbers of women in executive and CEO ranks.

((C=:: COGECO
CONNEXION

Cogeco Connexion is the WCT Company of the Year award winner for 2018. WCT presents the award to companies in the digital economy that have demonstrated outstanding leadership in making their workplaces more diverse, inclusive and supportive of women.

Cogeco Connexion is the second largest cable operator in Ontario and Québec in terms of the number of video service customers served. It provides its residential and small business customers with Internet, video and telephony services through its two-way broadband cable networks.

In 2011, Cogeco adopted a three-year employment equity plan to achieve a fair representation of designated groups including women. This plan, which was updated and extended in 2015, includes a number of progressive measures to foster diversity, employment equity and inclusion. The plan also sets measurable objectives for Cogeco's senior executives.

Cogeco's employment equity plan includes:

• Providing all Cogeco women with professional development opportunities designed to enhance executive and leadership skills and competencies.

• Professional networking and support through Cogeco's Women's Network (which is corporately funded) and other programs.

• Ensuring a highly flexible work environment for all employees that offers teleworking, flexible work schedules, reduced work weeks and unpaid leaves of absence to help employees better manage work and family responsibilities.

Cogeco Connexion takes diversity and inclusion seriously. It understands that a more diverse workplace ensures that companies are more innovative and better run. Cogeco brings the same comprehensive and strategic approach to diversity and inclusion as it would to any other corporate operation or objective. Its programs are purposeful and metrics-driven and senior management is accountable for its outcomes. As a result, it is achieving the kind of gender metrics that WCT would like to see more widely emulated throughout the digital economy.

Women at Cogeco Connexion constitute 32% of its total workforce. (The information and communications industry average is 26.7%.) Its management cohort is also 32% female. The company is publicly traded and 38% of it's board of directors are women. Its 11-person senior management team, led by President Ken Smithard, includes four women.

THE BUSINESS CASE FOR DIVERSITY

Building diverse and inclusive organizations requires resources – investments of time, money, ingenuity and commitment. But the business case for making technology firms more diverse is clear. Ask the people who have done it.

"It just seems so obvious to me," said Carol Stephenson, former Dean of the Ivey School of Business and leader of technology firms such as Stentor Resource Centre and Lucent Canada. "Everyone knows that a company's success is based on its talent. So if you're not tapping into all the talent inside or outside your company you will not be as successful as if you do. Add to that the value of diversity of thinking. We've all been in group think sessions and we've also been in meetings where there are different people from different genders, countries and backgrounds. You end up in a better place if you have a group of people who don't all think in the same way."

Peter Drucker famously identified diversity as one of the seven sources of innovation in his 2009 management classic, *Innovation and Entrepreneurship*. Since then, the idea that diversity of thought can be a key element in delivering the persistent and systematic capacity for innovation that knowledge-based company prize has become business orthodoxy.

GREATER DIVERSITY DELIVERS

- Stronger innovative capacity
- Better governance
- Better results

This view is regularly supported by data like a 2013 study published in the Harvard Business Review. The study explored "2-D Diversity" – inherent diversity (due to gender, race and ethnicity) and acquired diversity. It found that "companies with 2-D diversity out-innovate and out-perform others. Employees at these companies are 45% more likely to report that their firm's market share grew over the previous year and 70% more likely to report that firm captured a new market."[2]

Diverse companies are not only more innovative, they are better run. In 2015, McKinsey and Company published a report that gender-diverse companies are 15% more likely to out-perform non-gender diverse companies.[3] And a Catalyst study confirms that diversity also improves the quality of corporate governance.

2 "How Diversity Can Drive Innovation", Sylvia Ann Hewlett, Melinda Marshall, Laura Sherbin. Harvard Business Review. December 2013.

3 "Why Diversity Matters", Vivian Hunt, Dennis Layton, Sara Prince. McKinsey and Company. January 2015.

So, simply put, here is the business case for organizational investment by technology firms in diversity and inclusion:

- Facing full employment and as many as 180,000 vacancies by 2020, Canadian technology firms must access all sources of knowledge and talent available. The low percentage of women engaged in technology suggests a large untapped pool of talent.

- Diversity of thought and experience in organizational work groups are recognized as a source of innovation.

- Diverse companies perform better than homogenous ones.

- Diversity in leadership (executives and directors) produces better corporate governance.

What's true at the enterprise level is equally valid for economies generally as Finance Minister Morneau emphasised in his 2018 Budget speech:

"RBC Economics estimates that if Canada had a completely equal representation of women and men in our workforce, we could have increased the size of the economy by 4 per cent last year… Four per cent, Mr. Speaker!"

The business case for gender diversity is indisputable. It changes the discussion of workplace equity from a matter of fairness and social justice into something that is just plain good business.

APPENDIX A

NATIONAL OCCUPATIONAL CODES (NOC) USED IN THIS STUDY

1	0131 Telecommunication carriers managers
2	0211 Engineering managers
3	0213 Computer and information systems managers
4	0911 Manufacturing managers
5	1252 Health information management occupations
6	2133 Electrical and electronics engineers
7	2147 Computer engineers (except software engineers and designers)
8	2171 Information systems analysts and consultants
9	2172 Database analysts and data administrators
10	2173 Software engineers and designers
11	2174 Computer programmers and interactive media developers
12	2175 Web designers and developers
13	2241 Electrical and electronics engineering technologists and technicians
14	2242 Electronic service technicians (household and business equipment)
15	2243 Industrial instrument technicians and mechanics
16	2281 Computer network technicians
17	2282 User support technicians
18	2283 Information systems testing technicians
19	5222 Film and video camera operators
20	5223 Graphic arts technicians
21	5225 Audio and video recording technicians
22	5241 Graphic designers and illustrators
23	6221 Technical sales specialists – wholesale trade
24	9222 Supervisors, electronics manufacturing
25	9523 Electronics assemblers, fabricators, inspectors and testers

↗ UP THE NUMBERS

↗ FAISONS GRIMPER LES CHIFFRES

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