



Building skills for Canada's bio-economy

MOVING BEYOND THE BOUNDARIES

Connecting and Advancing Women in Biotechnology



A labour market report
from BioTalent Canada



REPORT PARTNERS

ABOUT BIOTALENT CANADA

BioTalent Canada is the HR partner of Canada's bio-economy. As an HR expert and national non-profit organization, BioTalent Canada focuses on building partnerships and skills for Canada's bio-economy to ensure the industry has access to job-ready people. Through projects, research and product development BioTalent Canada connects employers with job seekers, delivers human resource information and skills development tools so the industry can focus on strengthening Canada's biotech business.



REPORT PARTNERS

PRESIDENT'S MESSAGE

Few announcements, like BioTalent Canada's project launch two years ago of "Advancing Women's Careers in the Bio-economy," have received such marvelous industry support. Labour Market Reports of two years ago indicated that while 60% of current graduates of post-secondary biotech programs were women, employment of women had fallen by 11% since 2008. This disturbing figure prompted the federal department of the Status of Women to respond to our plea that more research and outreach was needed to support the recruitment and retention of women in their careers in the bio-economy. Support for this initiative was immediately received from the biotech clusters in PEI, Mississauga-Toronto and Vancouver. Dr. Kellie Leitch, Minister of Labour and the Status of Women, personally attended our launch event in early 2013 and the project even made its way into the prestigious journal, *Scientific American*.

Since then, with the support of our project partners, we embarked upon an ambitious survey and network-building to determine the actual experiences of women in Canada's biotech industry. Those findings, some of which may surprise you, including gender gap-analyses, form the basis of BioTalent Canada's latest Labour Market Report on Women in the Bio-economy, *Moving Beyond the Boundaries*.

It is fitting that we launch this report during National Biotechnology Week in Canada amidst special events in the three regions that came forward to support the project's objectives.

As we have indicated in all our endeavours, in order to overcome the business and technical skills-gaps we face, the bio-economy must take full advantage of strategic labour markets like youth, newcomers and Canadian women. As a country and an industry, they represent the most important and growing markets. Just as our educational and venture capital objectives must be met for the industry to remain competitive here and abroad, so must we ensure its human resources, Canada's foundation of innovation, retains the ability to attract and retain the most valuable people available to it.

After all, even before science, innovation begins with people.



Rob Henderson,
President and CEO, BioTalent Canada





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EXECUTIVE SUMMARY

With more than half of Canada's biotechnology companies reporting skills shortages, the sector needs to adapt its approaches to recruiting and developing skilled talent, in part by tapping into un- and under-utilized pools of potential workers, including women.

While women are broadly represented in Canada's bio-economy, their numbers have fallen by 11.5% since 2008, and the proportion of women in senior and executive positions remains below 20%.

This report, based on labour market research commissioned by BioTalent Canada, looks at the current state of women's bio-economy employment, their work experience, and where changes could open up new avenues of opportunity both for women and the sector as a whole.

MEN HAVE THE EDGE AS JOB SEEKERS

While most hirers say they believe men and women are equally capable of jobs in the bio-economy, their hiring behaviours favour men. All the male hirers included in the BioTalent Canada LMI survey chose men when given the choice between male and female candidates. Female hirers chose candidates of both genders, though slightly more than half picked men.

Attitudes about the relative skills of men and women reveal some fairly "traditional" biases as well, with men perceived strong in leadership skills and women in supporting skills. This may be the case on an individual basis, but as generalized biases, these attitudes could stand in the way of both men and women's advancement in non-traditional career roles.

WOMEN FACE MORE CHALLENGES ON THE JOB

Many workplace-related challenges disproportionately affect women, including issues around travel for work, childcare, and pressures to work outside of normal hours. Men with children did not report the same pressures or challenges. In general, women with dependents were significantly more likely to feel they had compromised their careers to maintain work/life balance than respondents without dependents. The more respondents felt they had compromised in this way, the lower their

job satisfaction. Overt discrimination or harassment were challenges for nearly half of all respondents, and moreso for women than men.

GENDER PLAYS A ROLE IN THE WORKPLACE EXPERIENCE

Women were more likely than men to believe their gender had influenced their employer's decision to hire or promote them. Forty-three percent (43%) of women believed they had been hired or promoted because of their gender, while only 9% of men felt the same way. Many employers seemed to be reluctant to hire or promote women with young children or who might be likely to have children in the future. Another common theme was the feeling that women were given less respect and appreciation than men for their work. Respondents who perceived gender to have influenced their career were less likely to feel close to obtaining their ideal jobs.

THE GENDER PAY GAP PERSISTS

The majority of respondents said they had been affected by a gender pay gap: 42.1% reporting this to be "somewhat to moderately challenging" and 23.6% "very to extremely challenging." Women found the gender pay gap to be more challenging than men, as did respondents without childcare benefits, those who felt their gender had influenced their employers' decisions, and those who felt men were offered more opportunities.

In terms of advancing their careers and professional development, 82% of women surveyed said they would be interested in participating in a professional network for women in the bio-economy.

CONCLUSIONS

The data collected suggest a difficult work environment for a great deal of women in the bio-economy. Both the gender pay gap and discrimination disproportionately affect women, and it falls on bio-economy companies to rectify these issues.

From this LMI study, BioTalent Canada has drawn three primary conclusions:

1. Biotechnology workers, particularly women, have significant concerns about work/life balance, and their workplaces do not always accommodate their needs.
2. Gender bias, whether conscious or unconscious, affects many bio-economy workplaces and has an influence on the careers of skilled female workers.
3. Many women in the bio-economy want access to a structured support network but none is available.

RECOMMENDATIONS

From the findings of this study, BioTalent Canada proposes five recommendations for improving the position of women within the bio-economy:

1. Train employers to effectively support female workers.
2. Eliminate the gender pay gap.
3. Promote mentorship.
4. Support biotechnology workers who have relocated.
5. Establish “women in the bio-economy” professional networks.

A WOMAN'S JOURNEY THROUGH THE BIO-ECONOMY



59% of science graduates leaving university or college are women.

The number of women in the bio-economy has fallen by **11.5%** since 2008.

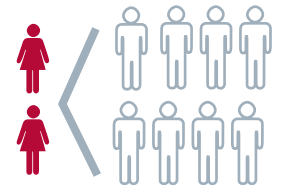


even though



52.9% of Canadian biotechnology companies report skill shortages.

Women hold fewer than **20%** of senior biotechnology positions.



is this because



Men have more opportunities for advancement?
51.9% of women think so.

Gender plays a role in the workplace?
43% of women think so.



So what can we do to make the sector a better place for women to pursue their careers?

1. Train employers to support female workers.
2. Eliminate the gender pay gap.
3. Promote mentorship.



4. Support biotechnology workers who have relocated.
5. Establish “women in the bio-economy” professional networks.

WOMEN IN CANADA'S BIO-ECONOMY

Biotechnology, the application of living organisms to industrial, agricultural, medical and other processes and products, has uses in a vast range of industries that comprise, together, Canada's bio-economy.

Who participated

A total of 264 individuals responded to the LMI survey: 223 women and 41 men. The largest group was from Ontario, followed by equal numbers in Quebec and the West. Respondents from the East made up 14% of the total and those from the Prairies 7%. Most respondents were between the ages of 30 and 34.

Biotechnology, the application of living organisms to industrial, agricultural, medical and other processes and products, has uses in a vast range of industries that comprise, together, Canada's bio-economy.

For companies to fully realize their economic potential within this bio-economy, they need highly skilled, job-ready people to drive innovation and commercialize new products and services. Yet today, 52.9% of Canadian biotechnology companies report skill shortages among staff, which are higher than previous expectations.

How can this skills gap be closed to ensure a thriving, globally competitive bio-economy in Canada? Part of the answer is attracting more people with the right training to the sector and ensuring they are encouraged and supported to succeed.

This labour market intelligence (LMI) report looks at one particular talent pool: women. While women are broadly represented throughout the sector, their numbers have fallen by 11.5% since 2008, and the proportion of women in senior and executive positions at biotechnology companies remains well below that of men.

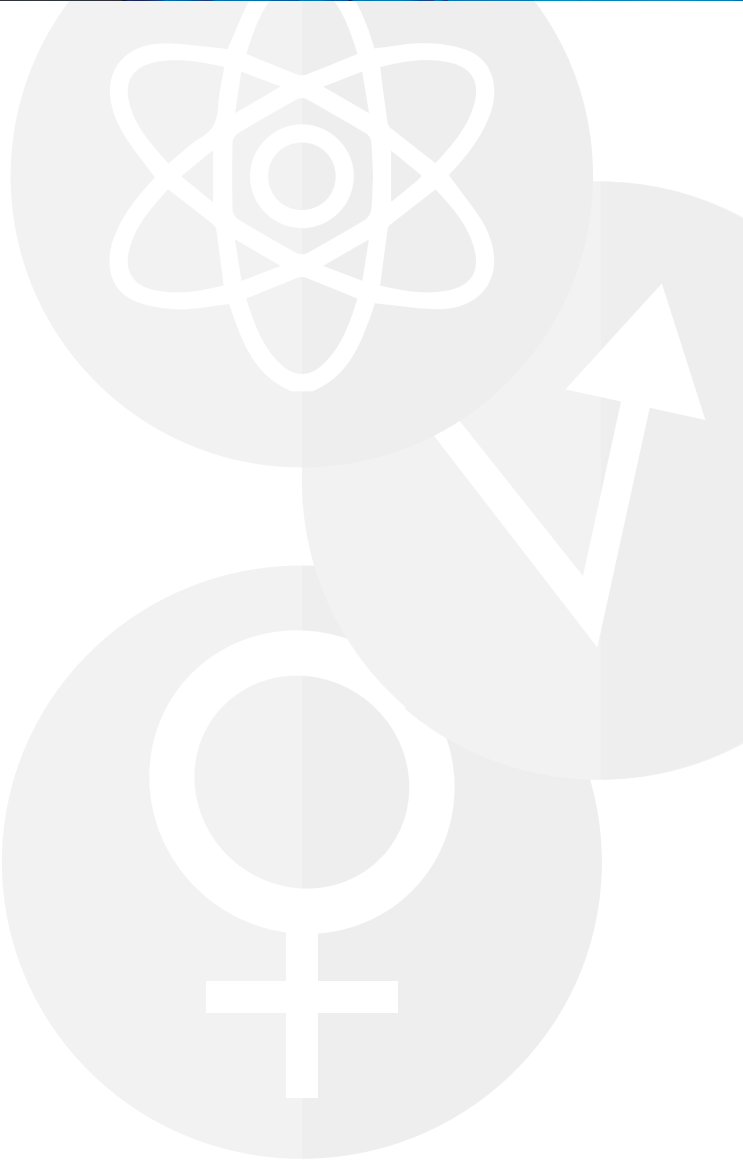
All of this echoes the findings of BioTalent Canada's previous LMI report, *Opening the Door*, and raises several questions. Is it harder for women to find work in the bio-economy? Are working conditions conducive to their success and advancement? What kinds of supports are available to them as their careers progress?



Through a survey of hundreds of Canadian women working or seeking employment in the bio-economy, as well as their male counterparts and companies that hire skilled talent, BioTalent Canada looked at these and other questions, gathering statistical data and anecdotal perspectives on women's work experience in the bio-economy. For this LMI report, BioTalent Canada also looked at how that experience differs across the country, focusing on four centres in particular: Charlottetown, PEI; Montreal, QC; Toronto, ON; and Vancouver, BC.

Clearly emerging from this research are three key facts:

1. Women want to work in the bio-economy, and when they do, they are vital contributors to companies' technological and business success.
2. Gender bias has a real and discernable negative effect on women in the bio-economy workforce.
3. There are concrete steps the sector can take to make it even more welcoming and supportive of women's success.



VIEWPOINT: WHAT DRAWS WOMEN TO BIO-ECONOMY CAREERS?

Women choose careers in the bio-economy for many different reasons, from an abiding interest in medicine, science or business to the opportunity to realize their ambitions. BioTalent Canada interviewed several women working in the bio-economy and collected their stories of what led them to their careers, as well as some of the triumphs and challenges they faced.

“ I had specific ambitions for a leadership role. I was assertive, and a fast-tracker, so I was International Director of Marketing by the time I was 29 years old. Team leadership roles are always tough, but I worked hard, produced results and pitched lots of ideas, so my career advanced very well. At my previous role, I was the only woman in an executive leadership position. I was a Senior International Commercial Strategist, until I set up my own company, so I definitely achieved my goals. ”

*CEO
Ontario*

“ I got my Bachelor’s in Nursing, worked as a Paediatric Nurse at the children’s hospital, and while there I developed contacts in pharmaceuticals. A headhunter called me to join a pharmaceutical clinical research facility in 2001, and that was the beginning of my passion for this field. The environment is wonderful, and when I started I made it my goal to be a Clinical Research Manager. I am very happy to say I succeeded. ”

*Management
Quebec*

“ I ended up in biotech almost by accident. I applied for a Master’s in Occupational Therapy and took a course in anatomy and physiology. When I found out that credit didn’t count for my program, I asked the professor about interesting fields and he hired me as part of a small start-up biotech company. I’ve worked in biotech ever since. ”

*Non-Management
British Columbia*



“ At the beginning of my career I was doing research work, but suddenly realized it wasn't the job for me and I quit to take marketing and accounting classes. I started working for a pharmaceutical company, but in those days, in 1988, it was tougher for women than I ever assumed, but I persevered. I wanted to make it into executive management, and I did. I was one of the first. ”

*CEO/President
Quebec*

“ Since my undergrad days, I wanted to work in both business and science, and I'm proud to say I've achieved that. At first, I worked for the Canadian subsidiary of a foreign pharmaceutical company, because the opportunities are a bit limited if you want to stay in Toronto. Eventually, I moved to a Canadian-owned company for medical device diagnostics, and now I have more influence on the strategic direction of the organization. I'm even the company's first female V.P. ”

*Vice-President
Ontario*

EMPLOYMENT IN THE BIO-ECONOMY

THE PROCESS OF FINDING WORK

The research performed in this study indicated that job-hunting in the biotechnology industry is significantly more difficult for women than for men. The women BioTalent Canada surveyed who were actively looking for work were more likely to have been looking for more than a year, while male respondents were more likely to have been looking for less than a year. This suggests that after female respondents have left a job in biotechnology, it is more difficult for them to quickly find another.

Respondents who had been looking for work for less than a year felt more confident their career goals were achievable, and male respondents were significantly more confident than women in this respect. Additionally, women who are currently employed are more likely than men to have been at their jobs for less than a year, possibly indicating a higher turnover of female employees.

HIRERS' GENDER-BASED PERCEPTIONS

The hiring process itself also had significantly different impacts on male and female respondents. While high percentages of women apply for entry-level jobs, management and professional positions see a steady decrease in female job applicants.

Fifty-eight percent (58%) of hirers felt there were definite benefits to hiring women, with the most cited reasons being perceptions that women have better time-management, multitasking, prioritization and interpersonal skills.

According to the hirers surveyed, bias is not an obvious impediment to women entering the biotechnology field. Nearly a third (28%) felt gender should not play any role in hiring decisions and said there was no advantage to hiring women, while 14% said it was best to have a balance of genders in the workplace. More than half of the hirers surveyed believed both genders were equally qualified; 14% perceived women to have higher qualifications. Hirers who believed women to be more qualified were more

likely to have found female applicants for professional positions. Those who felt men were more qualified, or that genders were equally qualified, were less so.

Table 1: Perceived qualification levels

What are the qualification levels of female versus male candidates?	
Overall females have higher qualifications than males	14%
Overall males have higher qualifications than females	3%
Overall males and females have about equal qualifications	54%
It is not something that I have been tracking	29%
Total	100%

Male hirers were more likely than female hirers to believe the genders were equal in qualifications. However, when male hirers could choose from only one gender, they all chose men. When female hirers were given the same choice, they chose either gender, though slightly more than half of them also chose men. This indicates that some male hirers profess a belief in equality they do not necessarily put into practice, and that female hirers tend to favour a more egalitarian approach.

WHICH GENDER HAS MORE TIME?

Perceptions of which gender was more willing or able to work late was seen significantly differently depending



on which gender hirers felt was more qualified for the job. Hirers who perceived men and women as having equal qualifications also tended to see the genders as equal in their willingness or ability to work late, but when they did favour one gender's extended availability, they favoured men. Hirers who perceived women to be more qualified were mostly divided between believing men were more available, or that there was no difference.

Overall, 61% of respondents believed men and women to be equally able to work extended hours, 27% believed men were more able, and 7% believed women were more able. This suggests that believing men and women to be equally qualified, or even believing that women are more qualified, does not prevent hirers from being biased in other ways.

The ability to work weekends was perceived similarly: 64% of hirers said they believe men and women are equally able to work weekends; 17% said they thought men were more able to work weekends than women.

Table 2: Perception of willingness to work late

	Among hirers who believe women are more qualified than men	Among hirers who believe men and women are equally qualified
Females	13%	3%
Males	50%	25%
No difference	38%	69%
Not sure	0%	3%
Total	100%	100%

Table 3: Perception of willingness to work weekends

	Among hirers who believe women are more qualified than men	Among hirers who believe men and women are equally qualified
Females	25%	0%
Males	38%	19%
No difference	38%	75%
Not sure	0%	6%
Total	100%	100%

The majority of hirers who felt women were more qualified and the majority who believed men and women were equally qualified both felt the genders were equal in their ability to travel for work. However, in both cases, if one gender was favoured over the other, it was males who were seen as more able to travel for work. It is interesting that even hirers who saw females as being more qualified still were more likely to rate males as being more willing or able to travel than females.

It is worth noting that the factor of accountability saw bias swing in the other direction. While the majority of hirers felt the genders were equal in their level of accountability, when the genders were seen as different, females were perceived as having the highest level of accountability. These perceptions also differed significantly between cities, with Vancouver favouring women as more accountable, Toronto split between respondents who felt women were more accountable and those who felt the genders were equally accountable, and all other cities seeing both genders as equally accountable. From this, we can conclude that gender bias does not inevitably favour men.

The majority of hirers did not feel they would be influenced by gender when it came to the need to make difficult decisions. Just under a quarter said they believed it was very to extremely likely that gender would influence their decisions. While 24% of hirers felt genders differed in their ability to make difficult decisions, they were evenly divided about which gender they favoured.

From this it seems that even though hirers are likely to believe women and men equally qualified, that belief does not necessarily extend to perceptions of availability or flexibility, in which cases men were favoured more often than women; or to perceptions of accountability, in which case women tend to be favoured.

CHALLENGES IN THE BIOTECHNOLOGY WORKPLACE

The workplace accommodation most commonly made by hirers was to provide for employees who must be absent to look after sick children or elderly relatives. About three quarters were also willing to provide staff mentoring, measure employee performance on output rather than actual physical presence, and schedule important meetings to not conflict with childcare.

There was less ability to make accommodations more directly related to childcare needs, such as privacy rooms for breastfeeding and onsite day care. In general, the LMI survey results show a negative correlation between women finding a position in their own field and the number of dependent children they had. No such correlation was found for men.

Hirers who were willing or able to make workplace accommodations to help with childcare were less likely to make decisions based on gender when a job required travel or extended hours.

GENDER-SPECIFIC CHALLENGES

Once in the workforce, the responsibilities and tasks taken on by men and women differ. For women with children (but not for men with children), there was a greater challenge in being pressured to work outside normal hours. This was considered “extremely challenging” by 18% of individuals who felt their gender had influenced their hiring or promotion, compared to 8% of those who were sure their gender was not a factor. As the level of challenge

increased, there was a related increase in respondents feeling they had compromised their careers for the sake of work/life balance and having less job satisfaction.

Feeling overburdened with demands of work challenged more than three quarters of the female respondents (78%). Women, especially older women, were most likely to feel overburdened, as were those with dependent children. On the other hand, 62% of male respondents felt overwhelmed. The greater this challenge was felt, the lower the level of job satisfaction.

Women also found travelling for work to be more challenging than men. Seven percent (7%) of female respondents rated travel as “extremely challenging”, while no male respondents said the same. Just over half (52%) of male respondents said travel was not challenging at all, compared to only 34% of female respondents. The more challenging respondents found travel to be, the lower their job satisfaction and the greater their perception of having sacrificed career benefits to achieve work/life balance.

Relocating is another challenge felt most strongly by women, by individuals who are not ethnically Canadian and by those who felt their gender contributed to their employers’ hiring or promotion decisions.

Family responsibilities also contributed to the challenges the respondents faced, corresponding with the compromise of the career for the sake of a work/life balance. These responsibilities were more challenging for those without childcare benefits at work.

What hirers believe about ability

Hirers’ beliefs in each gender’s qualifications do not necessarily affect their beliefs about each gender’s ability to accomplish other parts of the job. Many hirers believe men to be more able to work non-traditional hours than women, although most believe there is no difference.

Challenges with discrimination

Overt discrimination or harassment were cited as challenges by nearly half of all respondents, and were so most strongly for: women; those who felt their gender had influenced their employers; those who felt men were offered more opportunities; and those who spoke French.

THE CHALLENGES OF RE-ENTERING THE BIO-ECONOMY

Of respondents who felt their gender had influenced their employability (more than 80% of whom were women) 22% found re-entering the workforce extremely challenging, compared to 6% of respondents who were sure their gender was not a factor. This suggests a correlation between being subjected to some form of gender bias and difficulties re-entering the workforce, although one factor does not necessarily cause the other. It is worth noting that both disproportionately affect women.

Re-entering the workforce was especially difficult for women with children or dependents (with no such correlation for men with dependents), for respondents who spoke languages other than English or French, and for respondents who did not include Canadian in their ethnicity. The data suggest it is easier for men to find positions in their field as they age, but not so much for women.

These responses indicate a multitude of workplace-related challenges disproportionately affect women. Particularly in cases of childcare, even when men face the same situation, only women are likely to suffer professionally.

IMPACT OF GENDER ON OVERALL CAREER

While gender seems to have only a secondary effect on finding work and responsibilities in the workplace, its impact in other cases is more direct. Childcare, for example, plays a major role in the level to which respondents felt had compromised their careers and availability: women with dependents were significantly more likely to compromise factors which would be beneficial to their careers to maintain work/life balance. The more frequent these compromises, the lower their job satisfaction.

Women with young children said their work time was more limited than men did. Respondents were mostly united in the belief that women did not have greater time availability than men, with 38% believing men were more available, 34% believing there was no difference, and only 3% believing women were more available.

Table 4: Perceived differences in availability

In your field is there an overall difference between men and women in their availability to spend extra time at work?	
No overall difference	34%
As a rule men have greater availability	38%
As a rule women have greater availability	3%
Not sure	26%
Total	100%

PERCEPTIONS OF QUALITIES, SKILLS AND ABILITIES

LMI survey respondents had varying perceptions of gender-based skills and abilities. While the majority felt the genders were equal in logical ability, English speakers favoured gender equality more than respondents who spoke other languages, who tended to favour males.

Table 5: Perceived differences in logical ability

Men are much better than women	2%
Men are somewhat better than women	11%
Men and women are about the same	77%
Women are somewhat better than men	6%
Women are much better than men	4%
Total	100%

The majority of respondents believed the genders to be equal in leadership ability, although where there was bias, it favoured men (20% of respondents believed men to be the best leaders while fewer than 9% preferred women). Respondents mostly viewed the genders as having equal business orientation skills, but those who perceived gender differences almost always favoured males. Only a slim minority felt women were better than men in business orientation.

About half the respondents perceived the genders as being equal in competitiveness, and almost as many saw males as being more competitive than women. Only 8% of the respondents felt women were more competitive than men. Opinions of ambition displayed a similar bias, as just over half of the respondents felt the genders were equal in ambition. More than a third of respondents felt men were more ambitious than women; only 8% felt women were the more ambitious gender.

Networking was viewed comparably, with most respondents believing the genders to be equal and 25% identifying men as stronger networkers. While most respondents felt there is equal aptitude for math, science and engineering, when one gender was favoured it tended to be men.

Communication skills showed a different bias: while 53% believed the genders to be equal, 43% said women were better communicators; fewer than 3% favoured men.

Table 6: Perceived differences in communications skills

Men are much better than women	Under 1%
Men are somewhat better than women	2%
Men and women are about the same	53%
Women are somewhat better than men	32%
Women are much better than men	11%
Total	100%

Problem solving, commitment and teamwork all showed similar results, with the majority of respondents declaring skills in each area to be equal among men and women and the next largest proportion, believing women to be superior in these categories.

Well over half of the respondents felt women were superior in nurturing ability; 40% said the genders were equal in this regard.

Overall, while most respondents believe men and women to be generally equal in skills and abilities, there are some inherent biases about where each gender excels. This points to a fairly traditional attitude, with men perceived as strong in “leadership” skills and women in “supporting” skills. This may certainly be the case for some women and some men on an individual basis, but these biases could impede the advancement of both men and women in non-traditional career roles.

Perception versus reality

If there is a bias toward men as being strong in math, science and engineering, post-secondary graduation data and career information don’t reflect it. The Statistics Canada (2012) workforce survey found that 59% of science graduates leaving university or college for the first time were women. *Opening the Door*, BioTalent Canada’s 2015 LMI on new graduates entering the biotechnology sector, also showed that 56.9% of the participants in Career Focus, a wage subsidy program for new graduates, were female.

PERCEPTION OF BIAS IN THE WORKPLACE

Even with some workplaces making accommodations, women were much more likely than men to believe their gender influenced their employer’s decision to hire or promote them. In fact, 43% of women surveyed believed that they had been hired or promoted because of their gender, while only 9% of men felt the same way.

Table 7: Feelings regarding gender’s influence on employers*

		Gender:	
		Female	Male
Feel gender ever influenced an employer’s decision to hire or promote you	Yes	43%	9%
	No	35%	68%
	Not Sure	22%	24%

* Due to rounding, percentages do not necessarily equal 100%

Individuals (mainly women) who perceived their gender as influencing their career were less likely to be close to their ideal jobs, had less job satisfaction, and were more likely to feel they had compromised their careers for the sake of their work/life balance. They were also more likely to lack childcare benefits in their workplaces.

Finding a position in one’s own field was most challenging for: those who felt gender had been an issue in hiring/promotion decisions; those who spoke languages other than English or French at home; individuals with international degrees; and those who did not identify as ethnically Canadian. This suggests that workers from other cultures or ethnicities, and women in general, may find it inherently difficult to find work in the bio-economy.

Qualitative comments gathered as part of this LMI survey suggest that many bio-economy workers see gender more as a hindrance than a help to their careers. Many employers seemed to indicate their reluctance to hire or

promote women with young children or who might be likely to have children in the future. Another common theme was the feeling that women were given less respect and appreciation than men for their work.

THE GENDER PAY GAP

The majority of respondents said they had been affected by a gender pay gap: 42.1% reporting this to be “somewhat to moderately challenging” and 23.6% “very to extremely challenging”. Women found the gender pay gap to be more challenging than men, as did respondents without childcare benefits, those who felt their gender had influenced their employers’ decisions, and those who felt men were offered more opportunities. This wage gap is present even among the youngest employees entering the workforce. *Opening the Door*, BioTalent Canada’s 2015 LMI on new graduates entering the biotechnology sector, revealed that female recent graduates’ starting salaries were on average \$6,728 less than their male counterparts.

The gender pay gap was identified as most challenging by respondents who had sought advancement but not been promoted. The greater their experience of pay inequity, the greater was respondents’ sense that they had compromised work/life balance for career, the greater their general level of difficulty within the bio-economy, and the lower their job satisfaction.

These responses, taken separately from respondents’ perceptions of gender-based skills and abilities, suggest a difficult work environment for a great deal of women in the bio-economy. Both the gender pay gap and discrimination disproportionately affect women, and it falls on bio-economy companies to rectify these issues.

Challenges for international workers

According to *Talent Opportunities*, BioTalent Canada’s 2013 LMI on newcomers in the Canadian bio-economy, 44.3% of internationally educated professionals surveyed were unemployed.

VIEWPOINT: CHALLENGES AND SUCCESSES FOR WOMEN IN THE BIOECONOMY WORKFORCE

Being a woman in the bio-economy requires tenacity, self-advocacy and a strong work ethic. It means having to constantly demonstrate one's skills on the job and consciously balance the demands of work and home. Here are a few personal stories of how women interviewed overcame some of the obstacles they faced to pursuing their career goals.

“ I had a Master's in Molecular Biology, but I wanted to get away from the bench and move into management. I approached the director of my lab about an MBA, but he said he didn't see why I needed one. I signed up for the program anyway, and for two and a half years, every time I finished a report for school, about HR challenges or anything like that, I gave a copy to the Lab Director. Finally, he supported reimbursement of 50% of my tuition. ...I don't regret getting that management training... You need that for management in a biotech company. ”

*Biotech Executive
Prince Edward Island*

“ I have a Bachelor's from Holland College and my colleagues had PhDs. But I didn't let that stop me from advancing. I put in lots of time, effort and commitment to move up in the company. It's hard work, but it's important to learn things constantly, and prepare yourself for management positions however you can. Ask questions, put in the effort and show everyone you are capable. ”

*Facility Manager
Prince Edward Island*

“ If I could give women one piece of advice, it would be to find mentors. That's what I did. I asked the advise of people much smarter than me. ...As you face challenges, good mentors will give you different perspectives, because they've been through it themselves. And after you've made it such a long way, be a mentor to someone else. ”

*Biotech CEO/Founder
Ontario*



“ From the start, it’s important to be direct and honest about what you want. What’s your commitment to the industry? Are you passionate about what the company is doing? That’s what determines success, in the end. So communicate your goals clearly, and make sure the people around you understand them. To get recognized for your work, you have to be ahead of your boss, ahead of everyone in the industry, and be willing to work long hours. Sometimes, it’s easy to lose focus, so prepare yourself to adjust your career goals along the way. ”

*CEO
Ontario*

“ I worked in government at first, and I found that a lot of research would get started and then be dropped around election time. It was hard to gain momentum. Since then, I’ve gotten in with growing companies where there’s lots of opportunity to advance. I stayed flexible, and I branched out, and I built up lots of different skill sets. It’s higher risk here, where you’re not just another number, but if a small company survives a woman will do much better working there in the long run. ”

*VP of Research
Prince Edward Island*

“ Start with a realistic wage until you really begin delivering, and then renegotiate on salary and title. Fully demonstrate what you can produce, and watch your career progress. I’d also suggest having clear career goals and defining exactly what you will deliver, so you can defend your right to have a life outside work. At my current company there’s a rigid expectation to work 8-5 pm or longer, and I’m struggling to deliver high quality work with a home balance. ”

*Team Manager
British Columbia*

THE WORK EXPERIENCE

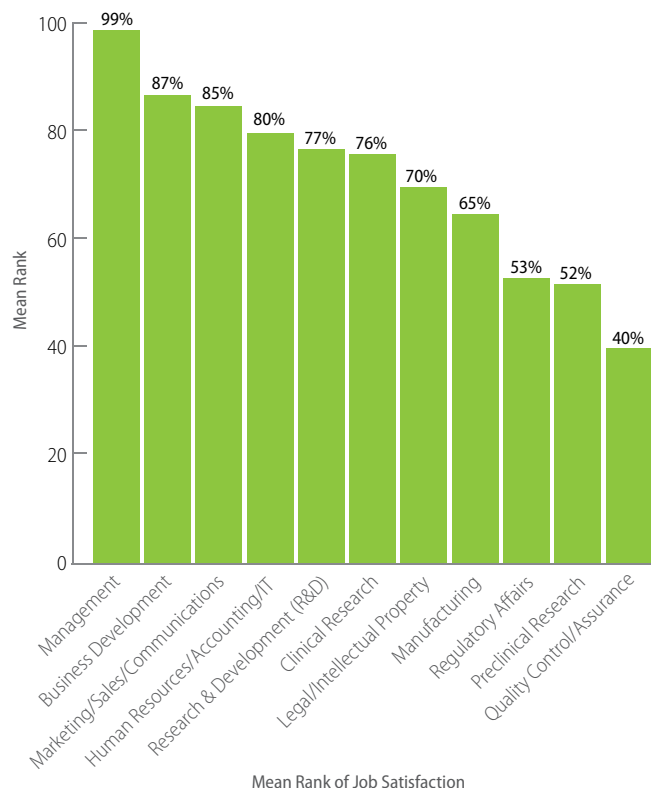
MOST WOMEN IN BIOTECH ARE SATISFIED ON THE JOB

Overall, 44% of women surveyed said they were very to extremely satisfied with their jobs, though this varied significantly by function. Employees in management posted the highest rate of satisfaction (99%) and those in quality control/assurance roles the lowest (40%).

Level of interest, challenge, autonomy, opportunities for teamwork and benefits such as salary and flexible hours contributed most strongly to job satisfaction. Factors that reduced respondents' satisfaction ratings include under-utilized skills, limited opportunities for advancement, insufficient salary, uncertain job security, overburdened workload, inflexible hours and dissatisfaction with management decisions.

These “pros and cons” seem to be reflected in the general tendency for women in more senior positions to have higher job satisfaction than those in more junior roles.

Figure 1: Mean Ranks of Job Satisfaction of Occupational Functions



Satisfaction comparison: Women versus men

While the women surveyed were generally satisfied with their bio-economy jobs, 30% more men than women were very to extremely satisfied. The most significant “satisfaction gap” in the “very to extremely satisfied” category appeared between women and men aged 20–34 (at 46%), and vanished between the ages of 50–64, at which point job satisfaction levels were equal.



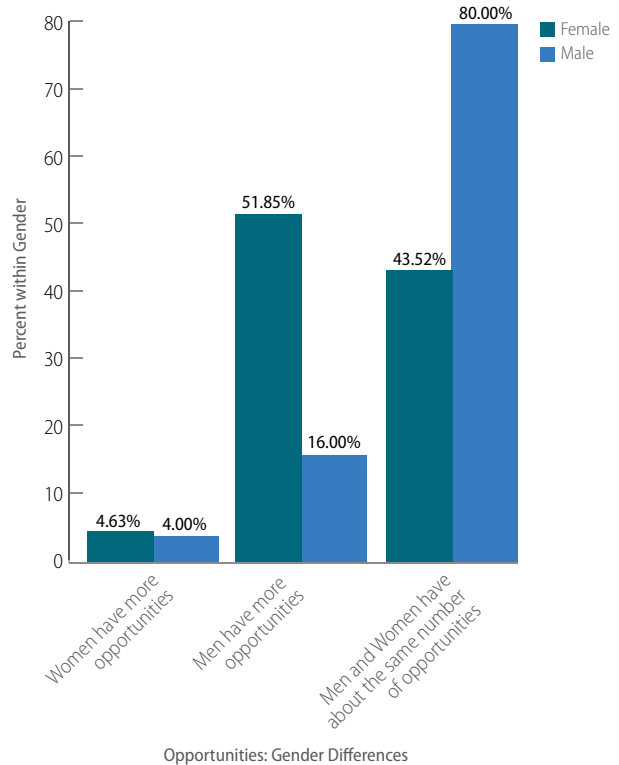
ADVANCING TO SENIOR POSITIONS IS STILL A CHALLENGE

The majority of respondents (57%) said career advancement was “very to extremely important” to them. An even greater majority (72%) were “very to extremely confident” in their ability to do the job at the next level up (with 88% of men and 72% of women very to extremely confident).

Despite their ambitions, women are less present in senior positions than men, ranging between 1% and 20% across the companies surveyed. This does not reflect women’s presence in the bio-economy workforce generally, where distributions slightly favour women.

Slightly more than half (51.9%) of women respondents felt men had more opportunities for advancement. Only 16% of men agreed. Conversely, 80% of men were sure opportunities were equal for both sexes, while just 43.5% of women agreed. This suggests widely divergent experiences and that if men are favoured, as the majority of women felt, they are largely unaware of the fact.

Figure 2: Male and Female Perceptions of Which Gender Has More Opportunities in the Bioeconomy



WHAT'S HOLDING WOMEN BACK FROM SEEKING ADVANCEMENT?

While more than half of all survey respondents felt they had the skills and training to advance in their careers, nearly 60% said they had not sought advancement. Those who did not seek advancement gave several reasons including lack of skills and training, concerns about work-life balance, lack of experience and lack of levels to advance to within their companies.

In general, those with greater confidence in their ability to advance were more likely to seek promotions. Women who had already been promoted or who were waiting to hear about a promotion were most confident. Those least confident said they had not sought advancement.

ADVANCEMENT AND WORK/LIFE BALANCE

Those who said they have not sought advancement due to desire for work/life balance were significantly less comfortable with time and travel requirements than those with other reasons for not seeking advancement. These same respondents were also more likely to feel they had the skills necessary for the next level, and that they had compromised their careers for work/life balance.

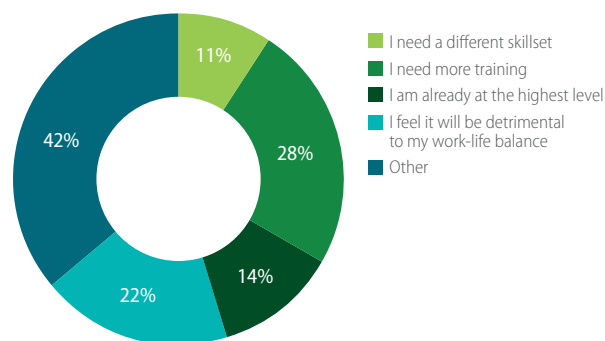
Undeterred by gender effects

Perceptions that employers' advancement decisions might be affected by gender did not prevent women from seeking advancement: those who said they thought gender might play a role in such decisions were in fact likelier to seek advancement than those who did not.

ACCESS TO CAREER RESOURCES AND JOB SATISFACTION

While most respondents said it was not difficult to access career resources, 22.4% said in their experience accessing such resources was "very to extremely" challenging. A higher proportion of women than men (24%) found accessing career resources very to extremely challenging, and the higher the level of challenge, the lower respondents' job satisfaction tended to be.

Figure 3: Reasons for Not Seeking Advancement to the Next Level



Interestingly, respondents with children were more likely to have leadership roles, to work longer hours, and to feel that childcare was unavailable, supporting some of the expressed concerns about work/life balance.

The data, taken together, show that women have a more difficult time both seeking and gaining advancement for a variety of reasons. Work-life balance, in particular, affects women's ability to take on the time-related responsibilities that accompany advancement, while not necessarily hampering their ability to perform the job in question.

Respondents who wished to be mentored were more challenged by the gender pay gap, a lack of role models, a lack of career resources, re-entering the workforce, finding a position in their fields and a lack of professional networks. They were more likely to be women, have less job satisfaction, lack a leadership role and feel their gender influenced their employers' decisions. They were also more likely to have an international degree, and to not identify as ethnically Canadian.

THE EXPERIENCE OF MENTORSHIP

Fewer than a third of respondents said they had been mentored by someone in the bio-economy. These respondents tended to work longer hours, to have leadership roles, and to have greater job satisfaction. They were also less likely to be looking for work than those who had not been mentored.

Very few respondents had only female mentors. Forty percent (40%) had only male mentors, while 43% had *both* male and female mentors. The respondents with only male mentors felt most challenged by attitudes toward women in the workplace; those with both male and female mentors were least challenged by these attitudes. Those with exclusively female mentors ranked somewhere between the two.

Those with access to female mentors reported fewer challenges looking for work, finding role models and dealing with the gender pay gap. The more helpful a male mentor, the more likely the mentee would want a leadership role, and the lesser their challenge finding career resources.

The above suggests that greater availability of female mentors, complemented by access to male mentors, could have a positive impact on attitudes toward women in the workplace and/or help women manage negative attitudes when they encounter them.

LIMITED ACCESS TO SOCIAL NETWORKS

Women in the first two years of their bio-economy careers as well as those currently seeking work and those who do not identify as ethnically Canadian all said the lack of social networks was a challenge for them. The greater this challenge, the greater the difficulty they reported encountering in the bio-economy generally, accompanied by lower job satisfaction and a stronger sense of having compromised career for work/life balance.

Lacking a social network was least challenging for respondents who did not perceive any gender influence in their employers' decisions, and for men, the challenge of social networking decreased with age, but there was no such correlation for women.

THE IMPACT OF ISOLATION

Sixty-three percent (62.2%) of respondents reported feeling isolated in their work. Nearly a quarter of respondents (22.7%) found these feelings to be "very to extremely challenging", while 39.5% rated them as "somewhat to moderately challenging".

Isolation was more of a challenge for women, for those who felt gender was an issue in their employers' decisions, and for those who perceived men to have more opportunities. It was least challenging for respondents who perceived the genders having equal opportunities, which is what an overwhelming number (80%) of men believed. Not surprisingly, those who felt more isolated reported lower job satisfaction.

Isolation was not an issue for any of the respondents who had been promoted, and was most challenging for those who had sought promotion but not achieved it.

These responses suggest that women are significantly more socially disadvantaged in the workplace, that this is not eradicated with time, and that it can have detrimental effects on job satisfaction and therefore their overall careers.

Definitions: Social networks and professional networks

Social networks are those that involve social connections between colleagues and other individuals in a given field.

Professional networks are more formally organized than social networks and generally offer opportunities for professionals to connect with peers.

WOMEN ARE HIGHLY INTERESTED IN JOINING PROFESSIONAL NETWORKS

60% of the total respondents reported past experience with professional networks: of those, 86% said the experience was positive because the networks gave them access to information about job opportunities, options to explore different career paths, and opportunities to expand and share knowledge. Negative experiences tended to leave participants feeling excluded, to be irrelevant to the participants' goals and not to lead to new contacts or job opportunities.

Women were more likely than men to want to find and join professional networks, as were respondents who expressed lower job satisfaction.

Eighty-two percent (82%) of women and 38% of men were interested in joining a network specifically to advance Canadian women in the bio-economy.

Employment and industry connections topped the list when respondents were asked what a proposed bio-economy network for women should focus on. Social events were frequently suggested as activities, as well as workshops and online courses. Career events appealed particularly to those looking for work, and those who

did not identify as ethnically Canadian were especially interested in creating industry connections.

The five most-suggested topics were:

- Women in the workforce
- Gaining employment
- General skills
- Professional development
- Specific bio-economy issues

Nearly half of respondents suggested network events be held once a month. A full third preferred events every other month, and these were most likely to be full-time employees. Twenty-one percent (21%) suggested once every three months.

Considering the widespread interest, as well as the common problem of isolation and social seclusion for women in the workplace, it is highly likely that a network of the type suggested would be very successful.

Who's interested in professional networks?

Those who were interested in professional networks were more likely to be challenged by the need to relocate for work, a lack of career resources, a lack of role models, the gender pay gap, attitudes towards women in the workplace and feeling unsafe in their work environment.

FINDINGS FROM DIFFERENT CITIES

The survey focused predominantly on findings from Charlottetown, Montreal, Toronto and Vancouver, each of which has its own biotechnology industries and subsectors.

The most significant findings from each centre varied, shedding light on the differences in work experience among the cities. For example, respondents in Toronto and Vancouver were less likely to identify as ethnically Canadian, highlighting the diversity of those centres compared to Montreal and Charlottetown. Toronto and Vancouver respondents also tended to have more difficulty finding social networks than in the other two centres. Further detail and other highlights from the survey are indicated in the graphic below:

TORONTO

77 respondents (29%)

Demographics	Education	Social networks	Confidence
61% of Toronto respondents did not identify as ethnically Canadian.	58% of Toronto respondents had post-graduate or professional degrees.	Toronto was divided on the challenge of social networks: 23% said finding one was extremely challenging, 23% found the task unchallenging, and the rest fell in between.	Residents of Toronto were most confident they could do the job at the next level. 50% said they were very confident, and 32% said they were extremely confident.

VANCOUVER

27 respondents (10%)

Demographics	Education	Social networks	Confidence
74% of Vancouver respondents did not identify as ethnically Canadian.	61% of Vancouver respondents had post-graduate or professional degrees.	Respondents in Vancouver found social networking the most challenging, and no one rated it as anything less than "somewhat challenging."	53% of Vancouver respondents were very or extremely confident they could do the job at the next level.

MONTREAL

45 respondents (17%)

Demographics	Education	Social networks	Confidence
62% of Montreal respondents identified as ethnically Canadian.	84% of Montreal respondents had post-graduate or professional degrees.	Respondents in Montreal found social networking relatively unchallenging; only 17% found it very or extremely challenging, and 34% found it not challenging at all.	75% of Montreal respondents were very or extremely confident they could do the job at the next level.

CHARLOTTETOWN

20 respondents (8%)

Demographics	Education	Social networks	Confidence
80% of Charlottetown respondents identified as ethnically Canadian.	56% of Charlottetown respondents had post-graduate or professional degrees.	Respondents in Charlottetown found social networking the least challenging; 60% found it not challenging at all, and no one found it extremely challenging.	68% of Charlottetown respondents were very or extremely confident they could do the job at the next level.

VIEWPOINT: EVALUATION OF WORKING IN THE BIO-ECONOMY

The bio-economy is one of many options for skilled female workers, and depending on the biotechnology sub-sector in which an individual ends up, they have very different work environments. Here, some women reflect on how their workplace and the industry as a whole reacted to their gender, and how they dealt with the experiences.

“ Some industries won’t take women for certain types of jobs. There’s this big, pervading, unspoken bias. I was the first woman to work the night shift, because that’s a solo job and people expected women to have a supervisor. But I spoke up and asked for the training, and I did the night shift for six months, running three different production lines alone. Usually, women are just filtered out somewhere between school and careers, and if we get here we have to adapt to survive. ”

*Technical Researcher
Quebec*

“ I work in a very supportive community, so my gender was generally accepted. It’s still a male world in upper management, but I never felt inferior because of my sex. That said, I don’t know if it was my gender, or my education or what, but when I was younger I was passed over for a promotion a couple of times. ”

*Facility Manager
Prince Edward Island*

“ When I started in the biotech industry, women could be sales reps, secretaries or pharmaceutical regulators. It was so challenging for a long time; I was consistently overlooked for promotions, and eventually I quit and went to a company that was more open to women in management. Even then, things were never perfect. I wanted kids, and when I told my boss I was pregnant he did not react positively. So I just told him to get over it, and he did. I treated my gender a non-issue, completely off the table, and in the end everyone else did too. ”

*CEO/President
Quebec*



“ As a woman it’s difficult to advance in any business, but that’s especially true in the biotech sector. Things have come a long way, of course, but I’m going to a big executive summit next week, and I know I’ll be one of the only women there. I find that men often help each other but women don’t tend to do the same. Men make introductions, mentor each other and support each other, and it’s important that we do that too. We have to find mentors, seek advice and consider many different perspectives. You’ll face many challenges, and good mentors are helpful because they’ve been through those same challenges. ”

*Biotech CEO/Founder
Ontario*

“ I’ve always been in PEI, so I have no experience to compare with. Generally, I’ve found that the industry is happy to have more women involved. They like to showcase us, since we’re a minority. In funding and finance meetings, I’m the only woman in the room, but they’re working on it and trying to be more inclusive. ”

*VP of Research
Prince Edward Island*

“ I didn’t feel there was much of a reaction to my gender. My experience has been mostly within regulatory affairs in Canada, and out of 14 people here, 12 are women. I have a female colleague who’s the director of a lab, which is a much more male-dominated environment, and I know that’s challenging for her, but I’ve never had to deal with that myself. ”

*Management
Quebec*

CONCLUSIONS AND RECOMMENDATIONS

In view of the data gathered in this survey, BioTalent Canada has reached three primary conclusions.

The first is that biotechnology workers, particularly women, have significant concerns about work/life balance, and their workplaces do not always accommodate their needs. Second is that gender bias, whether conscious or unconscious, is an issue affecting many bio-economy workplaces and has an influence on the careers of skilled female workers both directly and indirectly. The third conclusion is that women in the bio-economy often want a structured support network within the industry, but are unable to access one.

With this in mind, BioTalent Canada recommends the following:

1 Train employers to effectively support female workers

An online training program to educate managers and supervisors about how to combat conscious and unconscious gender bias in their workplaces should be developed to cover both the hiring process and the treatment of workers in the industry. This should include approaches to dealing with reported harassment and sexism, as well as standardized recommendations regarding accommodations for employees' childcare needs.

2 Eliminate the gender pay gap

The existence of gender-based pay inequity is unacceptable, and may be addressed through the training and/or HR toolkit recommended above along with separate tools reminding employers of their legal obligations regarding equal pay. With women as a numerous and strategically advantageous market, those employers who do not make their corporate culture sensitive to this market are making poor competitive decisions.

3 Promote mentorship

Developing a mentorship program to connect female biotech workers in the early stages of their career with more senior women in the industry interested in mentoring will help address women's expressed desire for more support and senior guidance in furthering their careers. This could be accomplished through an online connection service, which could span the whole country, or could be individually facilitated for specific cities.



4 Support biotechnology workers who have relocated

A program or tool to help forge supportive connections among biotechnology workers from other countries, backgrounds and regions could help overcome some of the feelings of isolation identified by survey respondents. It should also have specific initiatives to help employees research the bio-economy industry in different labour markets within Canada, to understand potential employment opportunities per region.

5 Establish “women in the bio-economy” professional networks

Regional professional networks should focus on creating employment and industry connections, hosting social events, as well as running workshops and online courses. They should also offer connections to useful professional development courses that can help women advance in their field.

METHODOLOGY

Obtaining the data

Survey data were obtained via an online survey circulated using Survey Monkey. The survey was distributed to BioTalent Canada's 14 member associations and forwarded to their respective members. It was also distributed to thousands of contacts via a news release using BioTalent Canada's client and stakeholder database. The survey was accessible online between October 9, 2014 and November 24, 2014. BioTalent Canada also utilized professionally trained interviewers to question women in Charlottetown, Toronto, Montreal and Vancouver about the priorities, gender, challenges and strategies that have shaped their experiences with the bio-economy.

Charlottetown, Montreal, Toronto and Vancouver were particularly targeted, but answers to the survey were widespread. There were sizable groups from Ottawa, Saskatoon, Calgary and Halifax. The bulk of the respondents came from central Canada, particularly Ontario. Of the other provinces Alberta was represented the most. There were no respondents from Newfoundland or the Yukon, Nunavut or the Northwest Territories.



BioTalent Canada wishes to thank everyone who took the time to participate in this study. This report would not have been possible without your participation.

Special thanks to our Report Partners.



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