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Gaining Insights on Career Satisfaction for Women in Mining

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ABSTRACT: This paper presents the experiences and views of women involved in the mining industry as determined from a questionnaire that was circulated across the Canadian mining industry. Globally, there have been significant studies done to understand the historic and global variety of women's participation in this industry¹. The reason for focusing on women's experiences here in Canada is because women's percentage representation at 14.4% in the mineral industry workforce falls below the overall labour force average of 47.4%². Notably, a recent article in the Globe and Mail newspaper points out that adequate representation of women in leading of organizations is more of a matter of competitiveness and innovation rather than purely a "women's issue"³. This paper will provide some insight into the reasons why women join and stay in the mining industry and shed some light into the reasons for the overall low representation in this sector. The authors believe, as stated in a study from the London Business School, that a gender-balanced workforce is one way of providing the best results in areas that drive innovation⁴. Women represent a key stakeholder group that can help enhance the mining industry's sustainability through innovation.

The women who responded to the questionnaire represent many different areas within the mining industry, including a broad range of roles in industry, government, academia and in the supplies and services sector. The paper is intended to raise awareness about issues that women encounter that contribute or detract from career satisfaction in the mining industry.

The survey provides an overall understanding of why women pursue or work in mining, and why women either remain or choose to leave it. The advantages and disadvantages experienced by women are highlighted, along with a summary of the possible initiatives that could be undertaken by employers as opportunities to improve the attraction of the mining industry for career-minded women. As well, the survey provides a summary of the top ten features that are already in place at various organizations and community groups that have been identified as key for supporting and encouraging women to join and remain in the industry. Not surprisingly, the survey identifies that one of the key ingredients for retention of women in mining is the provision of mentors and sponsors. Another key aspect for retention is the provision of progressive employment policies that address the need for a degree of flexibility in work hours and a culture of balance between work and personal life demands. The survey and results are portrayed only from a female perspective since it is largely women's perceptions that will inevitably be transmitted to others who plan on entering the field.

1. INTRODUCTION

In July 2010 the authors, who are at different stages in their careers, compiled a list questions geared at providing insight into the career satisfaction of women in the mining industry. Surveys were emailed to various mining related organizations and mines throughout Canada for circulation to employees and colleagues. People filling out surveys were assured that all their individual responses would be kept strictly confidential.

The motivation behind this survey was to discover an inside view of how women perceive their own industry as a career choice. Over a one month span, 153 questionnaires were received from Canada and through networking an additional 11 surveys were received from the U.S.A. and overseas.

This paper summarizes the findings of the questionnaires by using qualitative descriptions. The survey was not designed for precise statistical opinions on the different topics.

1.1. Mining Industry Labour Pool & Future Demand

The number of responses was a positive outcome from the authors' perspectives. However, in retrospect, it is rather symbolic that only 153 surveys were completed from the enormously large employee pool of over 200,000 people in the mining industry in Canada. Although 14.4% of the mining workforce is represented by women, this is well below the national participation level at 47.4% and well below the other natural resources industries and the corresponding percentage of

women: Oil and gas at 20%; Fishing, hunting and trapping at 18%; Logging and forestry at 15%.²

In North American and European businesses, women are making up almost half the workforce yet top positions are still held by men, as noted in the Harvard Business Review’s article on Women in Leadership, “Despite years of progress by women in the workforce (they now occupy more than 40% of all managerial positions in the United States), within the C-suite they remain as rare as hens’ teeth. Consider the most highly paid executives of Fortune 500 companies—those with titles such as chairman, president, chief executive officer, and chief operating officer. Of this group, only 6% are women. Most notably, only 2% of the CEOs are women, and only 15% of the seats on the boards of directors are held by women”.⁵ The representation of women in top leadership positions in mining companies and in organizations within the mining sector is lower still. This is a statistic that needs to be reflected upon and actions created to accelerate women and other minority groups into roles throughout all levels of organizations – this is an opportunity for business growth and success. The presence of women and minorities in a range of leadership roles is symbolic of a progressive company.

The future labour requirements in the mining industry indicate a looming demand for skilled workers right across Canada. In fact, according to the Ontario Labour Market Demand Study, an estimated 11,323 persons will be needed for hire by the mining industry in Ontario by 2018⁶ and up to 100,000 persons will be needed in Canada as a whole by 2020. This hiring figure could go as high as 135,000 people required in Canada if commodity prices perform better than expected. The prairies have the highest requirement of new hires with up to 50,000 people needed by 2020. The projected upcoming retirements, competition for skilled workers, and declining enrolment in mining-related academic programs are the greatest concerns in the mining industry. More than 40% of the workers in Canada’s mines and metals industry are expected to retire by 2014.⁷

In Universities and Colleges across Canada, the percentage of women enrolled in the trades and technical programs has been on a slow decline over the last decade creating a lost opportunity to the mining industry for skilled talent. Since 2001, the number of women in Engineering programs in Canada has dropped from 21% to 17% by 2009 – even though more than half the students enrolled at Universities across Canada are women.⁸ This downward trend is despite the best efforts of outreach and education to youth and young women by such organizations as WISE (Women in Science and Engineering), PEO (Professional Engineers of Ontario), and others.

The percentage of licensed professional engineers in Canada has grown modestly from 7% to 10% over a decade although the number of professional women in mining has not evolved⁸. It is the authors belief that the mining industry itself must look in the mirror to recognize some out-dated models that must be challenged and changed to attract women into continued high-level education programs and onward to a path of participation in the industry.

Definitely, a clear strategy is needed by multiple stakeholders to create and execute a well-coordinated workforce strategy to ensure the domestic mining sector maintains a global leadership position. One part of the strategy will be the increased representation of women in the workforce – the strategy will need a means of attracting and retaining women to this sector at a full range of levels – from labour, to administration, to technical, professional and trades, to the management teams. It is anticipated that some of the information from this survey will be useful to business leaders in developing the future workforce planning strategies.

1.2. The Survey Respondents

The women who responded to the survey represent many different areas within the mining industry, including a broad range of roles in industry, government, academia and the supplies and services sector.

Responders also range from labourers through to all levels of management. The 153 surveys show the diversity of available careers in mining. Ten general categories were developed for classifying the jobs (Table 1), and those that did not fit into these main categories were further grouped into the “Other” category. Of the female respondents, 14% had managerial titles (excluding project managers).

Table 1: General Job Categories for Respondents

Job Category	# of Respondents	Percent	Examples of jobs as per the survey
Administration	22	14	Administration, Accounting, Communications, Human Resources, Buyer, Payroll Administrator, Production Support, Inventory Specialist
Consultant	15	10	Communications, Various Engineering Disciplines including Mining, Geology, Geophysics, Computer, Waste Management
Education	5	3	Professors, Program Managers, Technical Support, Training
Engineer (Other)	9	6	Air Quality, Chemical, Instrumentation, Mechanical
Geology	23	15	Exploration, Operations, Research and Development, Technical Reporting, Government
Metallurgist	7	5	Mill, Refinery, Operations
Mine Engineer	20	13	Chief Engineer, Operations, Production Planner, Rock Mechanics, Mine Planning, Technical Specialist, Pre-production
Other	5	3	Equipment broker, Equipment Supplier, Scoop Operator, Government, NGO
Scientist	16	10	Biologist, Research, Environmental, Geochemist, Laboratory Technician/Technologist, Toxicologist
Student	13	8	Accounting, Engineering, Environmental, Metallurgy, Mine Engineer, Ventilation
Technical Support	18	12	3D Modeler/Drafter, Audiology, Automation, Civil Engineering Technician, Computer Programmer, Radiation Monitoring, Electrical/Instrumentation
TOTAL	153	100	
*Managers in TOTAL	21	14	

* Excludes Project Managers

Within the general job categories, the diversity of the types of jobs was high both in technical and non-technical roles. Jobs are available at the operation, corporate, consulting, government, academia, and other areas.

The range of roles and distribution from the respondents is reflective of the industry as a whole. Compared to males in the same job category, there is the highest proportion of women working in the clerical and support roles (>90% are women), administrative and corporate services (60%), and much fewer women represented in technical, skilled trades and professional roles (<10%), in labour (6%), and management levels (<5%).⁷

The age distribution of respondents is shown in Table 2. The majority of respondents (75%) are less than 45 years old.

Table 2: Age Categories of Respondents

Age Group	# Respondents	Percentage
<25	22	14
26-35	61	40
36-45	34	22
46-55	29	19
>55	6	4
n/a	1	1
TOTAL	153	100

2. RESULTS

The responses from the women in the industry were compiled into a single database and the information was grouped and sorted for an estimate of common themes and any unique feedback for consideration.

2.1. Why Women Work in the Mining Industry

The reasons that respondents gave for working in the mining industry can serve as a motivator for other women to pursue their interests in this field. As highlighted in our survey responses, many of these reasons for women are just as applicable to men working in the industry.

From the respondents' perspectives, mining has opportunities from heavy labour in difficult environments, to highly skilled and technical work, to management and strategic planning, and more. This range of opportunity makes it attractive from a multi-disciplinary point of view.

As well, another reason for women's retention in mining is the dynamic production work environment offered largely because the mining activity progresses geographically daily through the removal of ores from the ground. This work requires a continuous need for logical, creative, collaborative means to meet production targets. There are also a variety of tasks and work that is running in parallel with the day to day focus to address

the longer-term designs, business needs and key projects.

Women's interest in mining is also due to the fact that the industry provides a tremendous benefit to society. The physical products are used to create goods for public consumption and, all the while, the mining companies are striving to execute work in a responsible and sustainable manner. Mining professionals also work as a part of a team at the base of the economy whereby daily changes and contributions are visible.

The people in mining also make it attractive from the perspective of surveyed women. Mining is a "small-world" industry and the networking is excellent with organizations such as the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), Society for Mining, Metallurgy, and Exploration (SME), Women in Science and Engineering (WISE), Women in Mining (WIM) etc. There is a full variety of interesting people, many of whom are down to earth and who look out for each other. This industry provides the opportunity to network with people who explore, travel, and work in industries and governments from around the world creating its own mini-ecosystem of global diversity. Frequently co-workers become like a second family.

The high tech mining industry creates interesting work as it transforms ore into intermediate and final products. This huge process from exploration to sales requires knowledge and skill all along the value chain. There are constant challenges and new learning experiences with every facet of the business. It often allows one to apply a science or engineering discipline, or an administrative degree, or an economic and business focus. All work is done in a practical way with the added benefit that work is respected and valued.

Diverse opportunities exist as well. As pointed out by the respondents, persons who are self motivated and ambitious can apply any specific training background into a range of diverse and global opportunities. For instance, a geology degree allows women to work in a variety of roles and locations – from an exploration camp searching for new ore zones, to an active mine site, to government offices, to consulting companies, to academia etc. Likewise, an engineer can work in the office, in production, in the field, and so on. It is often possible to change roles, or departments, or work locations, or even companies. Since mining is truly an international industry, there is much versatility in work location and opportunities.

Regarding remuneration, mining offers competitive compensation in terms of salaries, pensions and benefits. As compared to other industries, mining generally offers competitive pay levels with top-shelf benefits. This allows for a good quality of life, especially if one enjoys

living in remote areas, with the natural byproduct of improved local economy.

Finally, mining companies commit to the environment. Mining is continually developing technologies in automation, equipment and science in order to meet stringent environmental and safety regulations. Definitely, this fact is reinforced by the work being done by the Mining Association of Canada in its “Towards Sustainable Mining Report.”⁹ The survey respondents believe this level of stewardship is an attractive trait and is yet another reason to work in the mining industry.

2.2. *Why Women Stay and Why Women Leave the Mining Industry*

Once motivated to study and become employed by the mining industry, the women were surveyed to understand why they chose to stay.

Besides the motivation factors, the other reasons for staying employed in mining include the following:

- **Mentoring & Sponsorship:** Several respondents said that they “would have quit a long time ago” without a mentor or sponsor who provided advice, support and encouragement. Most respondents reported having an informal mentor, absent of any formal mentorship program in their workplace. Notably, a recent article in the *Globe and Mail*, included as barrier to career advancement for women is “not enough senior-level mentors or sponsors”.¹⁰
- **Safety Focus:** Mining companies have a high regard for the safety of employees, the associated family members and the communities in which they operate. There is a continuous drive to find ways to make mining safer.
- **Work Schedules:** Mining provides different types of work schedules, from steady days to shift work to fly-in/fly-out camps (example: 7 days in, 7 days out). These appeal to some women in the survey.
- **Education/Training:** Mining generally promotes further education and provides opportunities to learn on the job and attend technical workshops.
- **Job Security:** Many respondents indicated that mining companies value experienced workers. As an employee gains experience, there is an increase in seniority, reliance in the work place and ultimately there is added job security. This is especially true if one is willing to relocate to an active site if an operation shuts down.

Many of the reasons that women leave mining, as represented in the survey results, are stated as family related. The same reasons can apply to men as well, since parenting is not solely a woman’s role.

Flexible hours, daycare for afternoon and night shifts, less field work and shorter rotations were offered as suggestions to help address some of the identified family-related constraints. Ultimately it is the production schedules that drive the need for employees to be at their jobs. Specific reasons why women left the industry include:

- **Travel:** Their job involved too much travel. Depending upon the nature of one’s job, the travel may become incompatible with one’s family commitments. Some women were able to make adjustments, but others found it easier to leave their job and find employment with less travel demands. Employees who leave an organization, i.e. turnover, add costs to the bottom line of the company in terms of a requirement for recruiting, training, relocation expenses etc. for the replacement employee.
- **Non-flexible Work Hours:** Strict start and end times can also create a problem for women in mining. Those in operations, found it difficult to meet some of the production schedules with the need for employees to be on shift work, or to start at very early hours. This again may not suit one’s family commitments.
- **Demanding Work Schedules:** This was noted, especially for women working in camp jobs (fly-in, fly-out) as these situations were not compatible with the childcare options and with their ability to leave their children for extended periods of time.
- **Boom/Bust:** The cyclical nature of the mining industry resulted in lay-offs whereby women non-voluntarily left the industry. There were also times when there were very few job opportunities for hiring of any employees. Some respondents felt that work became unavailable, especially in consulting as boom/bust cycles created an image of an unstable industry. Mining is still prone to boom/bust work situations due to its dependence on global market conditions for metals.

The survey solicited responses regarding measures that the industry could do to assist professionals with young families and here are some recurring themes:

- Flexible work arrangements
- Job sharing
- Day care assistance (including daycare on all shifts)

2.3. *Advantages and Disadvantages of Being a Women in the Mining Industry*

This section describes the feedback the women gave on gender diversity. When asked “what is the best part of being a woman in the mining industry?” more than a third of the survey respondents gave the same answers as

those mentioned earlier (see above) or responded that gender does not play an important role.

Overall, the women in the mining industry enjoy the interesting and varied work. They also enjoy being part of a team, having travel opportunities, being well-respected for contributions, being part of a fast-paced environment, working on technical challenges, producing a useful commodity, the compatible colleagues, the tremendous career opportunities, the high degree of safety, the valued skills, and the tight knit mining community, among others. Basically, the best part of being female ended up being “that most people do not point out or focus on that one is female”.

The women who were surveyed pointed out benefits specific to being a female. Many of these advantages are short term and the advantages last only if one can prove oneself. These included the following general statements:

- Excelling at the challenge of being female in a male-dominated industry and in positions not typically held by females (such as mining and construction). There are no set performance expectations so success will be noticed and this builds self-confidence.
- Being a minority, women are paving the way for more diversity.
- Women demonstrate strengths in problem-solving, decision-making, management of people, and leadership.
- Co-workers are kinder to the females than they are to the males.
- Women are well-respected.
- Women tend to be unafraid to ask for help, for instance, when a job is too physical for them.
- Women are reasonably recognized and are remembered for their contributions.
- Females may be hired because of gender, due to minority quotas.
- Some male colleagues take on the big brother or fatherly-type role. Some male colleagues are protective to women, treating them similarly to a spouse, mother, sister or daughter. They offer both mentorship and assistance.
- There are no feminine standards such as fashion to adhere to. All workers are generally treated equally and often the women in the industry have a lot in common with one another.
- The satisfaction of being a trailblazer in the industry.

Whereas most respondents commented on the advantages of being a woman, only about 25% filled in the section regarding gender disadvantages. Unfortunately there is no way of tracking whether these are true or false. A few women were very clear in the survey that they would not promote their career path to other women due to some dissatisfaction with their experiences in the industry. Reported disadvantages of being a woman in this industry included the following generalized statements:

- Being the minority in a male-dominated field, women feel isolated and/or ignored.
- Females must prove themselves to get respect from their male counterparts and there can be prejudice toward women.
- There are social challenges in this business that is dominated by males. A woman may not be able to invite her colleague to dinner or golfing without considering how it would appear to others. Likewise, she may not be invited to go out with the men.
- Women are perceived first as a female, then as an engineer or technical person. This can put pressure on females to step up their performance. Likewise, failures may be associated with being female.
- Physical limitations to do certain jobs.
- Having a benefits package that does not reflect standards of other industries, such as the non-suitability of child care to shift work, inflexible work hours and the inability to tele-work.
- Hygiene facilities have not been suitable for women workers in the underground mines and surface facilities can be of a quality inferior to those used by men.
- Difficulties in working in all overseas countries where opportunities for women are limited.
- Difficulties in finding proper fitting boots, safety glasses and gloves because most are still geared for men.
- Harassment was reported in the form of intimidation, inappropriate comments or touching, come-ons, girly calendars, rumors and writing graffiti comments on facilities/walls. Two respondents reported that they were assaulted. The average number of respondents saying they had experienced harassment was approximately 60% for each of the three age groups above 36 years old. For both groups under 35, the average dropped to 30% although this is still a disturbingly high occurrence level. Certainly, governments are addressing harassment, violence and discrimination issues by

instituting new legislation for businesses to comply with. These issues apply to all employees. With the new policies, employers are providing training to help employees understand what is and what is not acceptable behavior in the workplace. Worthy of note is a number of respondents who reported that they did not necessarily officially report the harassment - instead they dealt with the instance on a one to one basis or had chosen to leave the employment situation.

- Upper management, including senior managers and board members, is still male dominated. This comment from the respondents, is collaborated by recent publications in the Globe and Mail that provided a general overview of the demographics of corporate officers and directors whereby “only 17 per cent of corporate officers and 13 per cent of directors at Canada’s top 500 private and public sector companies are female”.¹¹

2.4. *Top 10 Features of Why Women Join or Stay in Mining*

A list of the top ten features that are already in place at various organizations and community groups to support and encourage women to join and remain in the industry has been compiled from the survey results.

Respondents entered the industry because of the following main reasons:

- Scholarships
- Outreach efforts via high schools
- Summer student employment exposure
- Networking opportunities
- Family members working in mining

Beyond the industry itself, women in Canadian engineering programs also noted the importance of networking opportunities during their course of studies, especially with participation of women representatives from the mining industry. This strategy was seen as beneficial in helping to reduce the stereotyping, helping all students in creating a sense of community, and demonstrating women professionals as role models to all students.¹²

Once women began to work within the mining industry, it appears that similar reasons served as a retention incentive. The top ten features for women staying in mining are as follows:

- Mentors and sponsors: These were beneficial whether they were male or female, informal or formally arranged.

- Progressive work policies to address the need for a degree of flexibility in work hours and a culture of balance between work/life demands.
- On-going professional development and training
- Attractive salaries and benefits. In particular, flexible work hours in their jobs make it compatible with motherhood.
- Scholarships
- Travel Opportunities due to global nature of the job
- Challenging and interesting work opportunities
- Excellent networking characteristic of the industry
- Job availability when seeking employment
- Growing up in a mining town (where mining jobs are prevalent) and wanting to work/live near family

Several respondents indicated that they had taken one or more breaks in their career. These breaks were primarily because of the difficulty associated with raising and family and adjusting to shift work, or a lack of childcare during night shift, or a strict mine operation start time.

Some respondents stated they took a break in their career since the industry did not offer part-time or job sharing opportunities (like other lines of work and industries) and several women stated they moved from the industry into consulting where more job flexibility was offered.

2.5. *Excerpts from Survey Results – Perceptions and Suggestions*

More than likely not all organizations in the mining industry will have their focus on all the key features that are encouraging women to join or stay in the business. However, women represent a large pool of untapped resources that could become very interested in joining and staying in the industry. To reach out to some of these women, it may be strategic for organizations to review the findings of the survey with a possible re-examination of their own internal employment models, hiring/retention strategies, policies and procedures, etc to see if changes or enhancements can be made to further aid the business. Although the strategies will lead to an up-front obvious improvement in gender diversity and women’s work satisfaction, this strategy will spill over into an improved business whereby diversity drives better decisions.

Due to the comprehensive and qualitative nature of the questionnaire, not all the survey results sections can be presented in this paper. However, a few topics have been highlighted as they represent recurring themes and suggestions from responders.

The key aspects and some specific comments were selected from the surveys.

These excerpts exemplify the perceptions that currently exist with the majority of women working in the mining industry:

- What obstacles do you think remain in the industry which may inhibit the participation of women?
 - Many women commented on the lack of daycare for non-standard shifts as a key hurdle in the operations type of work
 - Respondents indicated that there is a lack of women in the higher management roles and few to no women in operation's roles. Overall there is a lack of adequate role models (and inspiration).
- Can you recommend changes to industry that would benefit women or make this industry more attractive to women?
 - Emphasize that gender does not qualify someone for a job while his/her ability to do the work does
 - "Pull in some strong leaders from industries that do have a number of women in various levels and roles in the organization"
- Do you feel there is a glass ceiling in effect at your company?
 - Many women perceive a glass ceiling due to the fact that there are few if any women in higher management roles in the company – even at the supervisory level, very few women hold these positions
 - The women indicated that "there is a disproportionate [low] female representation in upper management"
- Are there any cliques that are gender based that you feel determine a person's progression within your company?
 - The responses on this topic varied and one respondent pointed out that "No, but I do think men relate better with other younger men rather than younger women" – and that the men in management positions tend to take more of an interest in the careers of junior men
 - "The golden boys are always male. Society still visualizes leadership with the male."
 - The women respondents perceive the existence of an "Old Boys Club" and that men seem to progress ahead of women because of this. In fact, some women felt that the women were not being promoted because "they have difficulty networking

outside work, eg. a woman not being invited to poker nights where relationships are developed", etc.

- Networking
 - Most responders remarked that companies "do not have formal networking program". Some women sought out their own mentor as they realized this was a key way to get the deserved attention of management for career progression.
 - Many women respondents did mention that they belong to societies such as CIM and SME since these organizations provide a level of business networking opportunities where the women are openly welcomed.

3. RECOMMENDATIONS

This paper was written on the strongly-held premise that wider diversity brings better solutions. The findings of this survey corroborates key findings of the "Ramp-Up: A Study on the Status of Women in Canada's Mining and Exploration Sector" report published by the Women in Mining (WIM) Canada organization.¹³ In addition to a review of that study's findings, it is strongly recommended that organizations review how their policies and programs are addressing some the issues brought up by this paper on why women are choosing to join, leave or stay in the field.

Overall, based on all of the responses to the survey, the average general satisfaction of women being in the mining industry is "7/10" which falls between a range of 5 which is "neutral" and a "10" which is high satisfaction with being part of the industry.

Most respondents said they would not change careers out of the mining industry. This represents a very favourable satisfaction with being a part of the mining industry. This conclusion reinforces a general undertone that is reflected by most respondents that women belong in the mining industry and generally enjoy the work available in that industry.

It was pointed out by the respondents that awareness is required of the different career opportunities available in the industry - from engineering to geology, to environmental to administrative – and the different career paths that are possible.

The women respondents also felt that youth at all levels of education – from elementary school, to high school, to college and university – should be made aware that careers in mining are fun and challenging and it is not only about jackleg mining and being grimy and sweaty. Mining is safety oriented, highly regulated, pushes the limits of environmental controls, and adopts modern day practices with high tech equipment.

Mining has job opportunities in exploration, mining, milling, smelting, refining, marketing, consulting, education, and other areas.

Because of the wide range of jobs being held by our respondents, we believe that mining is reaping the benefits of female employees across all professions. As relayed by one of our respondents “females in the industry are not “one of the guys”, but a working partner to be respected.” Mining is more brain power now than muscle power and women can fit in across the spectrum of jobs required.

From the authors’ perspective, it is encouraging to have received such a large number of responses in a short time frame. This demonstrated a sense of passion these women have in their industry and in being asked to voice their opinions. Many of the survey respondents requested a copy of the final report as they were interested to see how their own responses and experiences compared to others. Again, this request reinforces the isolation women have in the industry and their thirst for teamwork, collaboration and for helping to find new solutions to the issues women face.

Overall, as females, we want to be awarded jobs because we are qualified and not because we are filling a quota. More than one respondent commented that the barriers experienced by the trailblazers in the field are improving however as highlighted in The National Report of Workplace Conditions for Engineers, “The workplace is changing in positive ways for women, but old lingering beliefs held by even a few can act as barriers to full participation”.

In the future, the survey will be repeated and expanded to include ratings on reasons for joining, staying or leaving the industry – to better understand, quantitatively, which factors are primarily affecting retention in the industry and how new policies may be helping to improve attraction rates and retention. Moreover, a similar initiative to this paper, from the point of view of male colleagues in the industry, will be instrumental in providing insight in their career satisfaction and to see how this may differ from the women’s view point.

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