



Report on Summary Findings of National Research Project

Advancing Women & Diversity in Consulting Engineering

June 2023



ASSOCIATION OF CONSULTING
ENGINEERING COMPANIES | CANADA

ASSOCIATION DES FIRMES
DE GÉNIE-CONSEIL | CANADA

“ I’ve learned more in this session from my peers around the country than typical webinars because it’s open, interactive and we’re genuinely learning from each other as we all strive to move the needle. It’s a great way for ACEC-Canada (ACEC) to continue to support members to collaborate and apply best practices as we navigate in the years ahead. ”

Contents

| | |
|-------------------------------------|----|
| Overview | 4 |
| Methodology | 6 |
| Recommendations for Tangible Action | 7 |
| 1 Education for Employers | 8 |
| 2 Parental Leave | 11 |
| 3 Flexibility | 13 |
| 4 Pathways to Leadership | 15 |
| Student Viewpoint | 17 |
| Acknowledgement and Thank You | 20 |

Published by:

Association of Consulting Engineering Companies | Canada
PO Box 4369, STN E Ottawa, ON K1S 5B3

Tel.: 613 236-0569

www.acec.ca

Copyright Association of Consulting Engineering Companies | Canada (ACEC) 2023

Overview

A Strategic Priority

Women make up over half of Canada's population, yet they are still largely underrepresented in many fields, including engineering. While progress is being made in the number of women enrolled in post-secondary engineering, as well as with representation in the profession overall, much work remains to create work environments that are welcoming of women. Persistent gaps continue to exist at all levels, most noticeably within leadership where men dominate roles across the country.

ACEC has identified diversity and inclusion as a strategic priority for the ongoing growth and competitiveness of consulting engineering. The organization's near-term focus is on supporting members to promote and advance gender diversity in their workplaces. Many member organizations are challenged with recruitment and retention of women engineers, and recently national studies have indicated that the pandemic has made the situation worse with women leaving the workforce prematurely.

2021 Literature Review

To support this strategic priority, in 2021 ACEC engaged in a **literature review** to inform their course of action in the years ahead. The goals of the literature review were to better understand the current research on women's experiences in the field of engineering, any documented effective practices and initiatives that exist across Canada, and ways to support membership to advance their diversity and inclusion strategies.

This literature review highlighted that the talent pipeline is leaky in engineering for women in the early stage of their career as they are earning their professional license, as well as at motherhood when women are making decisions about what workplace supports exist to help them navigate both career and family demands.

The review also confirmed that barriers are well understood through previous research efforts that have been carried out by Engineers Canada as well as provincial and territorial bodies. They include a lack of mentors and role models, work culture and job demands that compete with family responsibilities, unclear advancement opportunities, and weak professional networks. It also revealed that while some positive examples of pilot projects exist around the country to overcome the aforementioned barriers, we are far away from widespread adoption of best practices.

2022 National Research

To build upon, rather than duplicate, the previously available research, and identify tangible actions to support members, in 2022, ACEC's Diversity and Inclusion Committee identified four themes to further explore in a national research project.

These topics are directly linked to supporting member firms with their ongoing growth as they compete to both recruit and retain engineering talent in the years ahead:

- education for employers
- parental leave
- flexibility
- pathways to leadership.

A series of focus groups were conducted to explore these four themes and identify specific ways ACEC could best support its member firms as they work to meet staffing needs, improve performance, and ensure they increasingly reflect the diversity of Canada's population.

education for employers

parental leave

flexibility

pathways to leadership



Methodology

In the fall of 2022, ACEC issued a call for focus group participants through its board membership and the provincial associations. Nine distinct audiences were identified to participate in a two-hour facilitated online session. These sessions were conducted over a two-week period over the course of November and December.

In general, the focus group format was widely endorsed by participants, with several saying that when it comes to the topic of workplace culture, policies and best practices, they gained more from peer learning in the two hours they had together than in any other industry learning format (such as webinars, conferences and key notes). There was a general desire for more facilitated interaction and peer learning. Of note, younger participants indicated it was the first time they had been in a session with so many women (approximately 10), which underscores their very limited numbers and the sense of isolation that can accompany being a minority. It was also a validation of the need for this type of focus by ACEC.

9 Focus Groups

- 1 Human Resource Professionals
- 3 Early Career Starters (0-4 years)
- 2 Established Women Mid-Senior in Career
- 1 Executive-Level Women
- 1 Executive-Level Men
- 1 Male Supervisors who are Hiring and Mentoring Engineers in Training

*Broad Mix
Based on
Geography
and Size of
Organization*

*2-Hour
Duration /
Online
Format*

*Outreach to
approximately
200 referrals,
resulting in
70 participants*

*November 21
to
December 2*

4 Key Themes Explored

Education for Employers • Parental Leave • Flexibility • Pathways to Leadership

Each focus group addressed four topics, and within that framework participants were asked to identify exactly what role ACEC could play to support progress. While there are many possible solutions and actions for each challenge, the recommendations contained in this report are those that were deemed by the participants to be most appropriate for ACEC to champion.



Recommendations for Tangible Action

- 1 Education for Employers

- 2 Parental Leave

- 3 Flexibility

- 4 Pathways to Leadership

1 Education for Employers

Focus group participants agreed that there is a need for employers to provide additional education about diversity, equity and inclusion topics. While some had exposure to general high-level concepts like inclusive language, inclusive interview practices, and unconscious bias, this was not widespread and often was offered only to the executive level. The groups also indicated that while the volume has increased on the topic within their firms by way of emails, there is a need for more group discussion where people can listen and learn in an interactive way.

Focus group participants also identified that training must go further than general concepts to include actual scenario-based workplace examples to help members deal with uncomfortable conversations, support young women as they enter the field, and to prepare for shifting demographics as our country welcomes more newcomers. The challenges faced by immigrant women surfaced in several focus groups as participants reflected on the multiple biases they often face due to race, religion, and language differences.

What is the best role for ACEC?

When asked how ACEC could best support members on this topic of education, focus group participants were clear that it was not necessarily for ACEC to produce training and offer it as a service. Although possible in some instances, the larger role for ACEC would be to provide direction and guidance for members to build their Equity, Diversity and Inclusion (EDI) strategies and proactively address key points of vulnerability when it comes to retaining women.



Building A Step-by-Step EDI Framework for Firms

There is widespread recognition that engineering firms should provide more education so that they can build more equitable workplaces that benefit everyone. However, many firms often don't know where to start. The focus groups made it clear that there is a desire for ACEC to build a framework of best practices that its member firms can use to advance education and action on EDI in their workplaces. This framework would outline a step-by-step progression, identifying what type of educational and engagement opportunities firms should create first at a foundational level and, subsequently, what additional EDI topics, tools, and practices they should embrace as they progress.



Offering Relevant Training and Fostering More Honest Discussion

Another issue when it comes to education is that some firms only prioritize EDI training at the executive level. The focus groups agreed that more should be done to educate people at *all* levels within a firm. They also agreed on the need for more tailored education for the real-life challenges and barriers that women may encounter in consulting engineering, as well as for a deeper dive on topics such as intersectionality (i.e. how different forms of discrimination such as racism, sexism, homophobia, classism, etc. interact and intersect to create unique experiences of inequality). ACEC could canvas member firms to identify the consultants they use for EDI training and publish a list of resources for all members that is categorized by topic, such as ‘EDI: The Basic Fundamentals’, ‘Supporting Women in the Field’, and ‘Combatting Intersectionality Bias’. If there are gaps, ACEC could partner with other EDI organizations to produce the relevant content, then offer it through webinars or at annual conferences to foster better dialogue and best practice sharing among members across the country.



Supporting Employers and Women in the Field

Many young women face barriers and discrimination when entering the consulting engineering field, and education is one of the most effective ways to combat these challenges. There was strong consensus among the focus groups that significant gaps exist in education, and that the following actions would help address this:

- More support for young women as they enter the field;
- Better resources for employers to educate employees on supporting young women; and
- More specific contract language so employers can proactively communicate expectations to contractors on promoting equality and inclusion in the workplace.

ACEC can play a role in all three areas by creating awareness about educational tools that exist (it is noted that one provincial organization is already working on a guidebook), by developing checklists for employers to use as they prepare teams for the field, and by providing language that member firms can use in their project charters so that they can hold contractors accountable for maintaining a harassment-free and inclusive workplace.



Providing Insights, Trends, and Data

Focus group participants look to ACEC as an objective authority that should provide member firms with data and trends on equality and diversity in the industry. This would help members understand major shifts in culture, hiring, and gender equality, who could then adjust their own positions and fill gaps accordingly.

“It would be useful to have a framework to show us what we should be thinking about introducing at each step of our journey.”

“I didn’t know what to expect in terms of sleeping arrangements, showering facilities or anything really. It turned out not to be so bad, but it was stressful not knowing and imagining what it would be like. I didn’t want to ask or come off as needy or different than the guys, but if someone had just given me a briefing up front, it would have put my mind at ease and I could have stayed focused on the work.”

“I would have appreciated tips on how to deal with awkward scenarios, like beings asked on dates or being degraded and told to put on a bikini. It’s shocking and we don’t know how to confront it, correct it and set expectations for tomorrow. At the same time, it shouldn’t be all on our shoulders as women. We need to know our employer has our backs.”

“We need to move from the general concepts about diversity to the specific situations we encounter. Let’s think about role playing, sample language, checklists. It needs to be very relevant to make a difference.”

2 Parental Leave

Research shows that maternity bias is the biggest bias faced by women in the workplace. Motherhood triggers false biases that women are less competent or less committed to their jobs.*

Focus group participants echoed this with many expressing frustration about missing out on promotions or performance increases because of maternity leave, being penalized professionally on license accreditation and ability to earn credits while on leave, to feeling isolation during leave because of a lack of communication and engagement and weak re-onboarding strategies.

Participants also highlighted the financial burden that comes from outdated Employment Insurance models and lack of employer top ups, and basic lack of understanding at the senior levels about the added costs that come with childbirth.

While participants indicated that increasingly there is a shift with men taking leave, strong stigma still exists and is a barrier to both men and women when it comes to normalizing parenthood and the realities of juggling childcare and a career.

What is the best role for ACEC?

When asked how ACEC could best support members on this topic of parental leave, focus group participants were clear that it was necessary to see more advocacy as well as awareness about available resources.



Advocating for Better Parental Leave

Parental leave is key to promoting gender equality and diversity in the workplace – it increases women’s participation in the workforce, encourages shared childcare responsibilities, and supports work-family life balance. However, there are many differences across the country for parental leave. For example, focus group participants mentioned that some provinces have recently changed their regulations to include maternity leave time for credit and/or expand credit definitions to any form of childcare or eldercare leave. ACEC can work to better understand these provincial differences on maintaining licencing while on parental leave, as well as how leave can qualify for credit. More research on this would help ACEC identify opportunities to advocate for positive changes to better support members during these critical times in their lives.

*source: www.leanin.org



Building Awareness and Sharing Best Practices

Several topics were identified for ACEC to champion awareness building, including by providing links to resources, and by creating group discussion and peer mentorship forums online or in person at conferences. They include:

- **Combatting Maternity Bias** – As part of the framework for employers, ACEC should highlight the importance of combatting maternity bias and understanding how it manifests in decision-making around promotions and other advancement-related opportunities for women.
- **Modernizing Leave Policies** – Several member firms have evolved their maternity leave policies to be referred to as parental leave, or more generally, caregiving. Others have modernized their policies by improving the way they treat sick days, increasing communication with parents while on leave to keep them engaged based on their personal preferences, or incorporating flexible transitions back to the workplace. There is a desire for ACEC to bring visibility to the practices that member firms are undertaking, and to quantify this progressive shift so that members can set targets. For example, what percentage of member firms are now offering top-ups?
- **Supporting Employees Through Leaves of Absence** – Transitioning to and from an extended period of leave is difficult to navigate for many people in the field, especially for those at the beginning of their careers. Several focus group participants referenced a parental guide produced by the Association of Professional Engineers and Geoscientists of Alberta (APEGA) as an excellent resource that should be endorsed by ACEC and promoted more widely to member firms. Their resource guide, **“Managing Transitions: Before, During and After Leave,”** has extensive checklists for individuals, supervisors, and companies to help employees enjoy a smooth off- and on-ramp experience during a leave of absence, including parental leave.
- **Boosting National Advocacy on Leave Benefits** – Focus group participants believe ACEC could partner with other engineering and geoscience organizations to raise collective voices at the national level. The goal would be to push the federal government on the need to revamp the Employment Insurance program and improve benefits to support a better experience on leave. This would include ensuring that workers who want to transition back slowly aren’t penalized with support claw backs or a loss of money.
- **Leading by Example** – industry conferences and training opportunities that require travel should become more family friendly with a return to spousal programs and on-site childcare.

“Employment Insurance is a problem. The choice to be a parent is not a short-term disability. ACEC could play an advocacy role to help elevate our voices and bring awareness to the need to improve benefits.”

“Financially, going on maternity leave was incredibly tough. There are significant new costs that senior leadership is not in tune with. I couldn’t do share ownership and had to explain why I wasn’t buying this year – cribs, diapers, formula – it all adds up and it’s awkward to have to educate leaders on those things when they ask me why I’m not buying.”

“There are progressive policy changes being made by firms. Let’s shine a light on those and help others adopt enhancements.”

3 Flexibility

Over the last ten years, flexible work arrangements have emerged as a top desired benefit among millennials who were rising up into the workforce and shifting expectations. Employers were slow to adopt flexible practices, but with the pandemic they moved rapidly to hybrid work arrangements and older generations embraced flexibility like never before. While it's clear that the notion of flexibility is here to stay, it remains loosely defined and very much experimental.

Focus group participants shared a wide variety of definitions of flexibility and ways their employers are attempting to meet new expectations for better work/life balance. They identified quickly that if everyone is working from home, then key aspects of culture like mentorship, employer differentiation, and client service could be drastically compromised in the long term. Nonetheless, the vast majority prefer to embrace flexibility and the notion of personalization instead of standardized policies.

Of note, there was a clear difference between urban and rural participants, with those in cities with longer commutes indicating a strong preference for newfound time and money savings attributed to no commute, lower fuel expense, parking costs, lunch costs, and the efficiencies they are enjoying when it comes to domestic duties. In contrast, those in rural areas expressed a desire to keep going into the office and mark a clear difference between work and home life.

What is the best role for ACEC?

Participants acknowledged that flexibility, while now considered an essential benefit, is still very much experimental as member firms pilot new ways to achieve flexibility, while also trying to create strong cultures that differentiate them from the competition, and not miss the opportunity to engage young and experienced alike for mentorship and growth. They agreed there would be value in ACEC playing a convenor role to facilitate more best practice sharing and learning among member firms as flex-work policies evolve. They also highlighted an advocacy role to further professionalize the industry.



Creating a Forum on Flexibility in the Workplace

All participants indicated that ACEC can bring value by continuing the conversation on flexibility in the workplace, while also ensuring member firms have an opportunity to learn from each other. Participants highlighted the following topics that could form part of an agenda for an ACEC national conference on retaining and recruiting talent, or for regularly scheduled webinars on how to navigate a more flexible, hybrid work environment:

- Guidance on part-time work, the gig economy, freelance and independent contractors;
- Mental wellness supports – best practices on benefits, allowances, tools, and resources;
- Mentorship – how to mentor young career starters in a virtual environment;
- How to balance personalization and fairness when creating workplace policies;
- Ways to think about social and family events as differentiators for engagement and team building;
- Case studies from leaders in Canada in consulting engineering, and;
- How to avoid the pitfalls of hybrid work with the decline of on-the-job training opportunities and formal mentorship engagements.



Elevating the Profession

Those who work in the industry know that consulting engineering is an exciting and fulfilling career. Several participants indicated that there is a role for ACEC to play in elevating the profession to ensure its long-term economic sustainability, and in promoting it as a desirable and financially rewarding occupation. Despite there being clear guidance published by provincial Member Organizations about pay rates, several focus group participants indicated that clients refuse to pay those levels. This results in firms setting cheaper rates, which undervalues people's work and compromises work-life balance. To address this issue, ACEC could build on their work to promote the industry by educating clients and the broader Canadian public about the incredible expertise and value of consulting engineers.



Pushing for Realistic Response Times

Participants raised increasingly disturbing trends in procurement practices from governments and major firms who are not respecting holidays, providing insufficient project response times, and shortening the period of response times for proposals – all which compromise work-life balance and diminish people's mental health. ACEC can play a stronger advocacy role in helping clients understand the importance of allowing more realistic response windows.

“Our company surveyed everyone about their preferences and then set core hours and core days of work. That way we are in the office together to collaborate and learn from each other.”

“What's the point of going into the office for eight hours if I'm just going to sit in an office by myself on Teams meetings the whole time?”

“To improve flexibility, firms are going to have to improve communication to keep everyone engaged and to differentiate their culture.”

4 Pathways to Leadership

The senior ranks of firms in consulting engineering across the country remain largely occupied by men. In the absence of proper programs and supports to help women advance into leadership and reach their full potential, many will exit prematurely or develop coping strategies to navigate the workplace that ultimately diminish their input and impact.

Focus group participants signalled the need for firms to formalize programs for both development and allyship, as well as the need to provide more transparency around pathways to leadership. Several positive examples were offered of programs that exist around the country, and that could be shared more widely among membership to inspire greater action.

What is the best role for ACEC?

ACEC should begin by leading by example and ensuring it has gender parity in key roles and on agendas at events. It can also create forums to support women's professional development and networking with each other. Participants also indicated that ACEC should focus on providing guidance to member firms about how to create inclusive cultures, formalize mentorship programs and career pathways, and how men can rise up as allies.



Championing Diversity, Equity, and Inclusion

Supporting diversity, equality, and inclusion, particularly in positions of leadership, is essential in fostering a strong, sustainable, and successful consulting engineering industry. Focus group participants indicated that ACEC should lead by example by modernizing its own EDI policies, improving gender representation on its Board, and choosing more diverse speakers at conferences. Specifically, the following suggestions surfaced:

- Host a retreat for women business owners in advance of the national conference to ensure that women are engaged and empowered;
- Offer professional development services for aspiring women leaders, including on topics like financial acumen, personal branding, and networking;
- Provide annual training for board members on how to promote diversity, equity, and inclusion
- Review policies and core ACEC documents for outdated language and adjust operating practices where necessary to ensure diversity and inclusion (example, skill matrix for the Board),
- Establish networking forums for early career starters to connect with and learn from established women in the industry, and
- Create an industry-wide national leaders' forum to bring men and women together on a regular basis to tackle issues of leadership, share best practices on promoting EDI, and engage in peer learning.



Promoting Sponsorship and Allyship

There is a need for ACEC members to understand more tangibly what sponsorship and allyship look like in practice. There is a strong desire for men and senior women to be part of the solution and promote equality, yet there is a lack of understanding on what they could be doing to have the biggest impact. ACEC could develop tools or create awareness of existing tools to support members in fostering an environment where women – and other underrepresented and marginalized groups of people – are fully included. These tools would include helping member firms with the following:

- Establishing and supporting employee resource groups;
- Making performance reviews more objective and KPI-driven, and;
- Outlining transparent career pathways to support advancement, including pathways to partner.



Improving Salary Transparency

Salary transparency is an important and empowering way that employees can enforce their right to equal pay for equal work, particularly between men and women. Participants indicated that ACEC can play an advocacy role with provincial and territorial Member Organizations that are conducting salary surveys to make this data publicly available. Some indicated that they used to rely on this information when negotiating their own salaries, but in recent years, the information has become unavailable.

“This is the first time in my engineering career that I’ve been in a room with so many women – even though it’s an online room and there’s only eight of us. That’s saying something. We could use a lot more of this.”

“It’s still ‘gents’ on every email I open, and events are all male oriented around sports and alcohol – it’s still a foreign world in many ways.”

“There are great things happening in my firm with employee resource groups and sponsorship programs. We would be happy to share.”

“It’s not a panel, it’s a manel with no diversity. It’s very disheartening – we need to do better to promote the shifting face of consulting engineering.”

“Young career starters need to know what fundamentals are required to progress. It’s not linear. It’s like a subway map – cross training is really important.”



Student Viewpoint

In January 2023, ACEC presented this research project to the Canadian Engineering Leadership Conference (CELC), an annual, bilingual, student-run conference that attracts over 200 student leaders from 46 universities across the country.

This year, the agenda included fourteen sessions and workshops on Diversity Leadership, including an interactive session hosted by ACEC.

21 students attended the session and were asked to engage on the topics of Workplace Culture, Flexibility and Career Progress.

Findings reinforced the need for member firms to continue to make steady progress on inclusive workplaces.

Workplace culture

When asked what elements are critical to their ideal workplace culture, values rank very high, as does work/life balance. Students indicated that they will seek out workplaces with behaviors that respect the following:

- Collaboration;
- Trust building;
- Fostering of friendships and a sense of belonging;
- Environmental protection, and
- Respect for mental wellbeing.

“We want to be trusted and be given some responsibility while we’re learning. Mistakes will happen, and we don’t want to live in fear that we’ll get fired.”

Flexibility

Flexibility is a key motivator for this group and is defined as ‘doing work when it works for us’ and having management that is empathetic to mental health and competing life needs.

“Encouraging self care and offering support if I can’t be on top of things 24/7.”

“I want my employer to recognize the hours I’ve worked and tell me to take a break.”

Career Progress

Ongoing learning is key with regular top-ups. This group expects firms to be proactive in offering regular learning opportunities supported by formal development plans and career pathways, in-person connections and mentorship programs that are initiated by the mentor, not always the mentee.

“Face to face is really important when beginning our careers – online mentorship doesn’t compare.”

“We need the ability to ask questions easily. Small office settings where I can turn around and ask a question.”

“Need intellectual development – let us into the boardroom to listen and learn.”

Acknowledgement and Thank You

This research project has signalled a shift from studying the problem to acting to solve the problem, with several initiatives taking hold across the country by members. Nonetheless, many are in their early stages or are isolated to just a few firms, provinces and territories. It will take membership working together to effect collective and positive change across Canada and for the sector at large.

It is clear that employers have a significant opportunity to share best practices to modernize workplace cultures and policies as they seek to welcome more women into the engineering profession.

We wish to acknowledge and thank all the women and men who gave their time to participate in this national research project. Your excellent inputs and recommendations will help to shape ACEC's activities in the years ahead as we work to support our members in achieving their goals.

The ACEC Board of Directors and management will now turn attention to prioritizing the various recommendations and building an action plan that will keep this conversation at the forefront and put tangible tools in the hands of our members.



ASSOCIATION OF CONSULTING
ENGINEERING COMPANIES | CANADA

ASSOCIATION DES FIRMES
DE GÉNIE-CONSEIL | CANADA