

## The Retention and Advancement of Women in STEM

Carolyn J. Emerson  
Project Coordination

Canadian Centre for Women in Science, Engineering, Trades and Technology  
www.winsett.ca; info@winsett.ca

Women continue to be under-represented in STEM sectors and notably in leadership roles. Technical women also leave STEM fields at significantly higher rates than their male colleagues in early to mid-career. While the reasons for that attrition vary for individual women, consistent themes centre on the culture of the workplace, gender schemas, and lack of opportunities for career development and advancement.

The Canadian Centre for Women in Science, Engineering, Trades and Technology (WinSETT Centre) delivers its flagship Women in SETT Leadership Program to technical women to raise awareness, develop leadership skills, and build confidence; and to SETT sector employers to develop more inclusive and respectful workplaces.

The WinSETT presentation at the Gender Summit describes the need for women's leadership. It then focuses on the themes, content and outcomes of the 46 deliveries of four modules of the program to participants in industry, post-secondary institutions and professional associations across Canada.

The leadership development modules for early to mid-career technical women include:

*Becoming Leaders: An Introduction to Leadership Skills and Strategies*  
*Effective Communication for Women in SETT*  
*Negotiating for Success*

and for employers – *Toward an Inclusive and Respectful Workplace*

Outcomes have been positive among the ~600 women participating in the leadership development workshops -

- evaluation scores >4 out of 5 for meeting workshop objectives
- improvement in 5 of 6 measurements of self-efficacy
- surveys and interviews revealing improved confidence, greater awareness of factors that affect career success, skills development, and greater motivation and pro-activity in taking concrete steps for career advancement.

New workshops to be delivered in early 2014 are:

*Networks, Mentors and Sponsors*  
*Navigating the Politics of the Workplace*

Similarly, the workshops for employers including senior leaders, managers, department heads, and team leads, have produced positive results including greater awareness of the value of diversity and inclusivity to the organization, and emerging practices to support and advance the career aspirations of their female employees.

There are continuing partnerships and collaborations with industry, the five Natural Sciences and Engineering Research Council of Canada (NSERC) Chairs for Women in Science and Engineering, professional associations, post-secondary institutions, and non-profits across Canada to expand the content and delivery of the Women in SETT Leadership Program, and to research the mid- to long-term career progression of women and institutional change.

Slides of the presentation are also available on the Gender Summit 3 website and a more comprehensive paper will appear in 2014 on the WinSETT Centre website.