

# The Ontario Network of Women in Engineering (ONWiE)

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**Summary** The Ontario Network for Women in Engineering (ONWiE) is a unique and innovative collaboration between the 16 Schools and Faculties of Engineering and Applied Science across Ontario. Since its formation in 2005, ONWiE programs have influenced young women, their parents and community leaders and the number of female students applying to engineering programs in Ontario has tripled.

## 1. Relevance

By working together, the collective impact of ONWiE programs is significant. Resources and effective practices are shared among members and more recently with engineering programs in other provinces. In 2016 Go ENG Girl/GÉNIales les filles was offered in 5 provinces across Canada.

## 2. Aims & Objectives

The objectives of ONWiE are

- Collaborate to improve the participation rate of females as students and professionals in engineering in Ontario
- Promote information sharing on best practices and opportunities around mentorship, communication materials, assessment strategies, and networking for women in engineering
- Provide opportunities for participants to network and to share information and available resources related to women in engineering.

## 3. Methods

ONWiE members offer a range of on-campus programs for female students to explore exciting topics related engineering in a confidence-building, hands-on environment:

BADGE DAY for Girl Guides (ages 8 to 11) – an annual event since 2011

GO CODE GIRL /ALLEZ CODER LES FILLES (ages 11 to 15) – launched in 2015

GO ENG GIRL /GÉNIALES, LES FILLES (ages 11 to 16) an annual event since 2005.

[onwie.ca](http://onwie.ca) offers rich information resources for young girls, engineering students and parents.

Impact has been evaluated based on participant surveys, enrolment data for science and mathematics courses in Ontario high schools and application data for accredited engineering programs in Ontario.

## 4. Results

Both qualitative and quantitative analyses confirm that the ONWiE collaboration has had a significant impact on engineering landscape in Ontario. In 2005, GEG engaged 1,200 participants (girls and their parents) and participation grew to 20,000 in 2016. Enrolment of female undergraduate students in Ontario engineering programs has increased by a factor of 1.75 (from 4814 in 2005 to 8248 in 2016). Feedback from participants indicate that stereotypes have been dispelled and that a majority are more interested in considering science, mathematics and engineering courses after attending ONWiE events.

## 5. Conclusions

ONWiE has had a long and substantial impact on promoting engineering and science and raising awareness about engineering careers across the province of Ontario and more recently Canada. This has led to measurable changes in the number of girls in Ontario high schools who are choosing the pre-requisite math and science courses required for engineering as well as the number of females who apply to and enrol in engineering and applied science programs in Ontario.

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