



# Engineers Canada's Testimony to the House of Commons Standing Committee on Human Resources, Skills and Social Development and the Status of Persons with Disabilities

Study on experiential learning and pathways  
to employment for Canadian youth

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## Introduction

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On May 30, 2018, Annette Bergeron, MBA, FEC, P.Eng, President of Engineers Canada, provided verbal testimony to the House of Commons Standing Committee on Human Resources, Skills and Social Development and the Status of Persons with Disabilities on its study on experiential learning and pathways to employment for Canadian youth.

The Standing Committee on Human Resources, Skills and Social Development and the Status of Persons with Disabilities agreed to undertake a study on the way in which experiential learning can guide younger Canadians through the transitions between high school, post-secondary education, and the labour market.

The study has seven main themes:

- youth underemployment after completing their education
- youth unemployment and how it harms the transition to the workforce
- volunteerism and internships and how they inform work decisions for students
- school-to-work transition strategy in Canada compared with international models and programs
- apprenticeships
- co-op programs and work-integrated learning
- entrepreneurship

For this testimony, Engineers Canada was asked to focus its remarks on co-op programs and work-integrated learning and on entrepreneurship.

Bergeron focused her testimony on four main recommendations, which are:

- that the government must support mandatory and paid post-secondary engineering co-op placements in institutions where they do not currently exist.
- that federal subsidies are provided to encourage co-op engineering programs with engineering employers.
- that engineering co-op placement eligibility be extended to international students with an engineering degree.
- that an up-to-date national database of engineering co-op education be developed.

## Testimony

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**Annette Bergeron, MBA, FEC, P.Eng, President, Engineers Canada:**

Thank you for the opportunity to appear here today, Mr. Chair. I am very pleased to discuss Engineers Canada's stance on experiential learning and pathways to employment for Canadian youth. Engineers Canada's testimony today pertains directly to the need for mandatory and paid co-operative post-secondary engineering programs to be implemented in institutions where they do not currently exist.

Engineers Canada is the national organization that represents the 12 provincial and territorial associations that regulate the practice of engineering in Canada and license approximately 290,000 members of the engineering profession.

Co-operative learning opportunities facilitate workforce recruitment and allow employers to train students in areas where there are evident skills shortages. Engineering co-op placements are crucial in developing an engineering student's professional network while simultaneously providing opportunities to gain relevant work experiences; guiding younger Canadians through the transition between post-secondary education and the engineering workforce.

Mr. Chair, Canada's engineering profession requires knowledgeable and innovative engineering leaders to improve aging infrastructure and promote clean technology.

With an unemployment rate of 11 per cent for Canadian youth between the ages of 15- and 24-years-old, paid engineering co-op programs at the post-secondary level are a mechanism to effectively address youth unemployment. These programs should be implemented into all post-secondary institutions where they do not currently exist to guide Canadian youth to meaningful employment following graduation. Of the 24 post-secondary institutions in Canada that offer an engineering co-op program, only five offer *mandatory* engineering co-op placements.

For example, my daughter is currently enrolled in a mandatory engineering co-op degree at McGill University, and my stepson graduated from a mandatory engineering co-op degree at Waterloo University. He is currently practicing engineering right here in Ottawa. Queen's University, where I used to teach, offers an optional 12-month internship engineering degree.

The perceived benefits for engineering students who participate in paid co-op programs are vast. Many of these benefits include positive employment rates following graduation, lower levels of student debt and higher workforce earnings following graduation. There are also many benefits for employers.

Paid engineering co-op placements are crucial in easing the economic burden that Canadian youth may face when entering into the labour market.

Moreover, the Canadian Youth Employment Strategy must be adjusted to promote career-focused engineering programs that are affiliated with federal departments and agencies. Currently, the strategy has a large focus on connecting youth to science and technology programs, leaving engineering initiatives all but forgotten. A program stream that connects a federal department or agency to a youth-focused engineering program is required to engage and attract youth to engineering education and the profession.

Second, the federal government should provide wage subsidies for post-secondary engineering co-op placements. Financial incentives have a large role in influencing employers' likelihood in hiring students who participate in co-op education. By allocating wage subsidies for co-op placements, Canadian engineering employers will learn more about co-op engineering programs and will benefit from innovative perspectives from the students they train. Engineering students who are better prepared to enter the profession will contribute greatly to Canada's economic growth and innovative agenda.

A survey put out by the Canadian Federation of Engineering Students with over 1,700 undergraduate engineering student respondents from across Canada found that "competition from other students" and

"lack of quality job opportunities" were the two biggest concerns of their engineering programs. This suggests that both the quantity and quality of engineering internships available to students are not adequate for current demand; thus, greater government support for initiatives with federal departments, and wage subsidies for employers, would allow students to take advantage of internship programs that already exist.

Third, the federal government must support engineering bridging programs for international students who have attained an engineering degree from an accredited post-secondary program. Bridging programs that are specific to engineering should be supported to provide international students with information about the pathway to licensure, an understanding of Canadian engineering workplace culture, valuable references for job searching, and access to local engineering work experiences.

Nova Scotia has a great Engineering Work-based Competency Assessment Program and bridging program that offers international students a 12-week opportunity to demonstrate their engineering competencies and to identify skill gaps with a Nova Scotian engineering employer. An honorarium is given following the 12-week placement. This is a great provincial program that allows international students to show their qualifications to a potential employer while submitting their work experience record to Engineers Nova Scotia. This program may be considered towards the individual's one year of North American experience that is required for licensure.

By developing an engineering bridging program across Canada, internationally educated youth can successfully transition into the Canadian labour market.

Finally, information on the impacts that engineering co-op placements have on Canada's workforce and national economy need to be readily available for policy-makers, industries, students, and educational institutions. Data sources in Canada have significant shortcomings, which include their relatively short-term nature when referring to critical labour market information, such as youth unemployment rates following post-secondary education.

Having a national database on the employment rates of post-secondary engineering students following a co-op program is critical to addressing successful youth transitions into the Canadian workforce. It would allow stakeholders to track the growth of co-op placements in Canada while simultaneously evaluating the success of student co-op participation.

Mr. Chair, thank you for allowing Engineers Canada to present to the committee today on this important issue. We hope that the committee recognizes the integral part that mandatory and paid co-op engineering programs can play in supporting youth's transition into the workforce.