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2003 ENROLMENT REPORT SHOWS IEGs KEY TO ENGINEERING PROFESSOR DEFICIT

Every year, the Canadian Council of Professional Engineers (CCPE) publishes an enrolment report that takes data collected from universities across Canada and applies statistical calculations to analyze and interpret the findings in order to best gauge student enrolment trends throughout Canada's accredited engineering programs.

While examining overall trends in engineering enrolment, the 2003 report specifically focused on foreign students entering into Canadian university engineering programs. The report explored the question: **are Canada's universities attracting significant international student interest?**

By in large, survey results show that, yes, Canadian universities are attracting large numbers of international students. In fact, foreign student enrolment in Canadian accredited university engineering programs has almost doubled since 1998.

Of the total undergraduate degrees awarded in 2002, 4.2 percent were awarded to foreign students. Master's degrees awarded to foreign students doubled from 2001, accounting for almost 27 percent of the total master's degrees awarded in engineering. And, the number of doctoral degrees awarded to foreign students increased by 62 percent, making up a third of the doctoral graduates in 2002.

From a gender perspective, female foreign student enrolment has almost doubled over the last five years. Females now make up approximately 47 percent of all foreign students, compared to 36 percent in 1980.

Many of the foreign students studying in Canada come from East Asian countries. Together, South Korea, China, Hong Kong and Japan accounted for 43 percent of foreign students in Canada in 2001. Mexico is now also starting to emerge as an increasingly important source of foreign students.

Within Canada, about one in three foreign students study in Ontario. However, trends show an increasing shift in foreign student enrolment from Ontario to British Columbia since 1990.

Despite the fact that full-time undergraduate foreign student enrolment only accounts for eight percent of the total full-time undergraduate enrolment across Canada, projections show that an increase in the degrees awarded to foreign students will likely continue in the short term, as long as foreign student enrolment continues to rise.

Are Canada's universities attracting significant international student interest?

Although foreign student enrolment is expected to increase, research findings suggest that there is a steady need for university faculty to teach engineering. In fact, in 2002, 85 percent of Canada's engineering faculties reported vacancies in teaching positions.

To make matters worse, within the next ten years, 51 percent of the full-time and associate professors currently teaching in Canadian universities will be eligible to retire.

Perhaps foreign students who study engineering in Canada and international engineering graduates (IEGs) are the solution to the engineering professor deficit.

International students and graduates often tend to pursue graduate level studies and thereby obtain the necessary education level required to become university professors.

In January 2003, CCPE and its CMs launched a three-phase project called *From Consideration Integration (FC2I)*. The goal of FC2I is to develop new processes and/or improve current processes by which IEGs are able to obtain an engineering license without compromising public safety or lowering professional standards. Another key objective of the project is to help IEGs find meaningful engineering employment.

With a more streamlined process of integration for IEGs in place, foreign students and IEGs could indeed be one of Canada's greatest sources of future engineering faculty. Canada welcomes diversity in its university programs and within the engineering profession.

The 2003 enrolment report will be released at the end of this year.

Calendar of Events

Every month, CCPE and its committees schedule a number of events. Here are the upcoming activities taking place in September:

- **CEQB**, September 17-18, 2004, Montreal
- **CEAB**, September 19-20, 2004, Montreal

