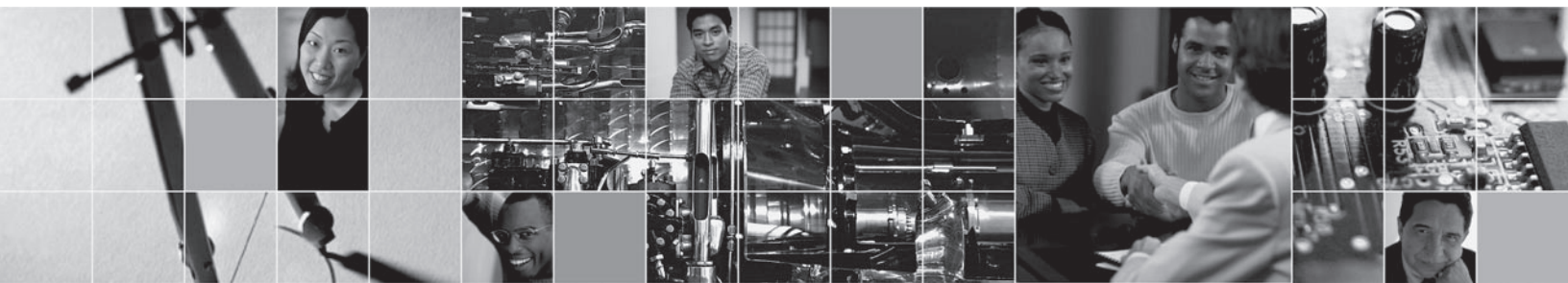


From Consideration To Integration



*An environmental scan of the
International **Engineering*** Graduate experience
before immigration and once in Canada*

Final report from Phase I

*Prepared by:
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Executive Summary

Each year, thousands of international engineering graduates (IEGs) immigrate to Canada. They may be seasoned engineering professionals who have been practicing in their native countries, recently engineering graduates or they may be working in jobs that would be technologist or technician positions in Canada. Regardless of which group they fall into, many of these IEGs arrive in Canada expecting to begin work as engineers and are unable to find engineering employment.

The Canadian Council of Professional Engineers (CCPE), its provincial and territorial partners, and Human Resources Development Canada have recognized the importance of addressing this critical employment issue. Together, they have embarked on a joint initiative to solve the integration problem — to better enable IEGs to gain employment in Canada and earn licences as professional engineers (P.Eng. or ing.) in their province or territory of residence.

Launched in January 2003, *From Consideration to Integration (FC2I)* is a three-phase project that aims to:

- research the Canadian immigration process, provincial and territorial engineering licensing procedures and approaches to assessing the credentials of IEGs, examine licensing processes of other professions and in other engineering jurisdictions, and gather feedback from IEGs, settlement workers and from those who employ engineers (*Phase I*);
- analyze the information gathered in Phase I, determine where the process of integration needs improvement, develop models, processes and tools to better equip IEGs, develop consistent and transparent foreign credential recognition processes for licensing

purposes, and begin building consensus among stakeholders on issues such as implementation of the selected solutions (*Phase II*); and

- implement the new processes and develop supporting information materials (*Phase III*).

Research revealed that IEGs primarily immigrate under Citizenship and Immigration Canada's (CIC's) *skilled worker* classification. The new Immigration and Refugee Protection Act (in place since 2002) abandoned the former focus on a prospective immigrant's occupation in favour of an emphasis on immigrants' skills sets and their ability to contribute to the Canadian economy. There are several points of contact between immigration officials and immigrants throughout the immigration process, and there is significant information on the CIC website. Despite this, IEGs can confuse assessments conducted to assist in immigration and employment with those specific to licensing. Certainly, there is a sense that the more information IEGs have prior to immigration, the easier it is to settle in Canada.

Obtaining a clear sense of the IEG's immigration experience — from arrival to Canada through settlement to employment — would be helpful in determining where weaknesses in the system exist. Unfortunately, the information available is incomplete: CIC compiles data on immigrants who self-identify as engineers — which is problematic in and of itself given that the credentials of some IEGs don't qualify them as engineers in Canada — and provincial and territorial bodies only track IEGs who apply for licensure. Their progress through the licensing process — when or why they may leave the process — is not tracked.

Following their arrival in Canada, immigrants first attend to basic needs such as housing, then turn their attention to other matters of settlement — schooling for their children, language training, labour market information and employment. Several sources of settlement information and support exist for IEGs and their families, including:

- immigrant-serving organizations, many of which operate satellite offices at the airports in major Canadian urban centres;
- government-funded (and university) host programs that match immigrants (and immigrant students) with host families to assist with integration into Canadian culture and society;
- community networks, which are especially critical for immigrants arriving to smaller Canadian cities;
- government websites that offer valuable support information;
- not-for-profit foundations that provide support services and, in certain cases, scholarship grants to cover immigrants' education fees;
- private businesses such as law firms offer integration support and language training on a fee-for-service basis;
- numerous settlement organizations that facilitate immigrants' integration over the longer term; and
- several organizations and initiatives across the country created specifically to assist IEGs with their transition.

These are key channels of communication with newcomers.

In 2002, the federal government commissioned a report that examined long-standing problems in the immigration consulting industry. It was based on input from representatives of the legal profession, immigrant advocacy groups, academia and the immigration consulting

industry, as well as submissions from organizations and individuals in Canada and abroad. The Minister is currently determining next steps.

In terms of becoming licensed as an engineer in Canada, IEGs can access information about the licensing process on any number of websites including that of the CCPE or its members. However, even with the information on those sites, IEGs may not appreciate certain realities; for example:

- that only credential assessments conducted by the provincial and territorial engineering regulatory bodies are valid for engineering licensure;
- that while employers are unlikely to take a chance on an IEG without a P.Eng., an individual can in fact work in an engineering environment without one; and
- that earning a P.Eng. requires one year of work experience in Canada.

When an IEG applies to become licensed to work as an engineer in Canada, the overall process is *generally* the same in every province and territory — verification of education; acquisition of Canadian work experience and successful completion of a written exam.

To accommodate IEGs, some jurisdictions have undertaken innovative approaches: PEO (Ontario) permits applicants to begin the licensing process prior to immigration; APEGBC (British Columbia) has undertaken a pilot project to assist IEGs in obtaining their one year of Canadian experience; APEGGA (Alberta) is considering another category of licensure; and APEGM (Manitoba) is working with the University of Manitoba on a co-op pilot project with IEGs.

Part of the challenge in communicating licensure requirements to IEGs is the variation in requirements among provincial and territorial regulatory bodies. While the steps to licensure are generally the same, each jurisdiction has somewhat different rules. All jurisdictions have noted that their procedures are time-intensive — licensure can take anywhere from three months to four years.

Focus groups conducted with IEGs offered valuable insights into their experiences following immigration. Virtually all noted that the process of obtaining an engineering licence was extremely frustrating.¹ Several reported confusion regarding the number of regulatory bodies in Canada. Many felt the qualifications evaluation was time-consuming, bureaucratic and in some cases unfair. Some asked that the process be changed to permit completion of the written examination prior to immigration (which now happens in jurisdictions like Ontario.) Accumulation of a year's experience working in engineering in Canada was reported to be virtually impossible to do and was the cause of much resentment among focus group participants.

The regulatory bodies have begun to respond to these types of concerns. Professional Engineers Ontario, for example, issues Provisional Licences to applicants who have satisfied all of the licensing requirements except the minimum 12 months of acceptable engineering experience in a Canadian jurisdiction.

Settlement services providers offered some additional insight into the preconceptions of IEGs arriving to Canada. They reported a common assumption by IEGs that they would be qualified to work as engineers upon immigration.

Investigation into other Canadian professions — including the medical, nursing, dentistry, chartered accountancy, law, architecture and veterinary medicine professions — revealed certain commonalities with the engineering profession's approach to evaluating

¹ These IEGs immigrated prior to 2002 when the new immigration legislation came into effect.

international graduates' credentials, and certain differences. All establish technical competence through written examinations. For some, reciprocity agreements exist permitting licence mobility across the country. Some permit completion of the written exam prior to immigration.

A review of engineering licensing bodies in other countries revealed certain inconsistencies and certain commonalities with Canada's approach. For example, in the UK, 35 different professional institutions exist that govern different engineering disciplines. In the U.S., as in Canada, the professional regulation occurs at the state level.

To gain some perspective from Canadian employers, a random sampling of 21 was selected from across the country. None reported a lack of technical proficiency among IEGs. Of the factors considered in the hiring process, employers noted proficiency in English (or French) and knowledge of North American business practices as among the most important.

A number of areas for discussion in Phase II were identified.

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1.0

Introduction

Each year, thousands of international engineering graduates (IEGs) immigrate to Canada. They may be seasoned engineering professionals who have been practicing in their native countries, recently graduated engineering students or they may be working in jobs that would be technologist or technician positions in Canada. Regardless of which group they fall into, many of these IEGs arrive in Canada expecting to begin work as engineers and are unable to find engineering employment.

The Canadian Council of Professional Engineers (CCPE), its provincial and territorial partners, and Human Resources Development Canada have recognized the importance of addressing this critical employment issue. Together, they have embarked on a joint initiative to better enable IEGs to:

- gain employment in Canada;
- earn a licence as professional engineers (P.Eng. or ing.) in their province or territory of residence.

Launched in January 2003, *From Consideration to Integration (FC2I)* is a three-phase project.

In *Phase I*, the project team researched the Canadian immigration process, provincial and territorial engineering licensing procedures and approaches to assessing the credentials of IEGs, and gathered feedback from IEGs, settlement workers and from those who employ engineers.

In *Phase II*, team members will analyze the information gathered in Phase I, determine where the process of integration needs improvement, develop models, processes and tools to

better equip IEGs, develop consistent and transparent foreign credential recognition processes for licensing purposes, and begin building consensus among stakeholders on issues such as implementation of the selected solutions.

LEXICON

integration – Its use in this report is intended to refer to obtaining an engineering employment (P.Eng. or ing.) and obtaining engineering license.

profession – When used in reference to engineering, it is intended to include the CCPE and its members – the provincial and territorial regulatory bodies, and not other engineering concerns.

foreign credential recognition – From the federal government perspective, FCR means recognition of an immigrant's qualifications compared to the Canadian equivalent. When it means other than that in this report, the difference is noted.

credential assessment – is a term used throughout the report in two ways: credentials as required by the regulatory bodies in their engineering licensing process, and credentials as required for the immigration process.

In *Phase III*, full implementation of the processes identified in Phase II will be undertaken, along with development of supporting information materials.

This report is the culmination of Phase I.

Project funding is provided by the Government of Canada's Human Resources Partnership Directorate and is part of an effort by the government to attract, develop and maintain a world-class labour force. This project is closely linked to the Government of Canada's Innovation Strategy, which the engineering profession strongly endorses. The project recognizes the important role that international engineering graduates can play in helping Canada to remain at the forefront of innovation.

BACKGROUND

Engineers help improve the lives of Canadians everyday. From fuel-efficient car designs to life-saving medical technology, safe playground equipment to new pharmaceuticals, engineers make invaluable contributions to our society.

Canadian engineers are recognized among the best in the world, having repeatedly demonstrated both the highest standards of innovation and an unwavering commitment to public safety.

Committed to a vision of inclusion and diversity within the profession² and mandated to uphold Canadian standards of engineering excellence, the CCPE and its provincial and territorial members have recognized that the country stands to benefit greatly if more IEGs can lend their expertise to the betterment of life in Canada.

Governing the profession

Established in 1936, the Canadian Council of Professional Engineers (CCPE) is the national organization of the 12 provincial and territorial regulatory bodies/ordre. The provincial and territorial regulatory bodies/ordre regulate the practice of engineering in Canada and license the country's more than 160,000 professional engineers. (In Ontario, Professional Engineers Ontario licenses professional engineers, and sets standards for and regulates engineering practice in the province. The Ontario Society of Professional Engineers is a member-interest, advocacy organization, created jointly by Professional Engineers Ontario (PEO) and the Canadian Society of Professional Engineers.) CCPE serves the regulatory bodies (ordre in Quebec) which are its constituent and sole members, by delivering national programs that ensure the highest standards of engineering education, professional qualifications and professional practice. It also safeguards the values of the profession, promotes a greater understanding of the nature, role and contribution of professional engineers and engineering to society; and is the voice of its constituent members on national and international affairs.

Anecdotal evidence, media reports and input from settlement organizations in the late 1990s confirmed problems with unemployment and underemployment of IEGs.

Following these reports, CCPE embarked on a campaign to identify barriers to the integration of IEGs and develop strategies to topple them. On October 3, 2002, representatives of Canada's provincial and territorial regulatory bodies (but not employers) met in Halifax, Nova Scotia.

Members unanimously agreed that:

"the profession should work together to facilitate the integration of foreign trained engineers into the profession, ensuring that they can obtain their P.Eng. more quickly and efficiently, without lowering admission standards or compromising public safety." (2002 – CCPE Meeting Notes from Halifax, N.S. 2002)

In January 2003, CCPE launched *From Consideration to Integration (FC2I)*, a project designed to improve the Canadian engineering profession's models and approaches to evaluating and recognizing foreign engineering credentials as they pertain to licensing, and facilitate the employment process for IEGs.

² CCPE Vision document 2002.

Funded by the Government of Canada's Sectoral Partnerships Initiative within Human Resources Development Canada (HRDC), its findings may also help other professions, such as medicine and nursing, improve their approaches to integrating international graduates.

THIS REPORT

This report captures the research compiled during Phase I of the FC2I project. Because the integration paths followed by IEGs vary depending on their country of origin, province of destination, qualifications, experience and education, a broad environmental scan was conducted. Presented findings include:

- overview of the Canadian immigration process, including preparatory steps IEGs can take before coming to Canada; their experience upon arriving; and information and settlement support available to them;
- a profile of IEGs;
- a synopsis of the engineer licensing process by Canadian province and territory;
- results of focus groups with immigrant IEGs;
- input from settlement workers and employers; and
- analysis of other Canadian professions' approaches to integrating international graduates and of other countries' approaches to integrating IEGs.

The initial issues identified in the report will guide the analysis, research and consultations to be undertaken in Phase II.

2.0

Coming to Canada

Citizenship and Immigration Canada (CIC) is the federal government department with responsibility for immigration. Its mission is to build a stronger Canada by:

- deriving maximum benefit from the global movement of people;
- protecting refugees at home and abroad;
- supporting the settlement, adaptation and integration of newcomers; and
- managing access to Canada.

Every year, Canada welcomes thousands of new residents, both immigrants and refugees. Separate entry processes exist for each group. The process of becoming a *permanent* resident of Canada is the same for both groups.

Federal skilled worker selection under Canada's Immigration and Refugee Protection Act (IRPA)

Under the new IRPA legislation, which came into effect in June 2002, federal skilled worker selection uses a human capital approach, assessing an applicant's flexible skill sets rather than a single intended occupation. This represents a change from the former system which was based on an occupational demand model. IRPA acknowledges the dynamism of the knowledge-based economy and recognizes that micro-management of the labour market is no longer feasible.

The new selection system is more effective at selecting immigrants who will succeed economically as it uses an objective, transparent and easier-to-use points system. Applicants are assessed on education, official language ability, experience, age, pre-arranged employment opportunities and adaptability.

The system will continue to be fine-tuned over time.³

Anyone applying to come to Canada must indicate the reason for seeking entry — to:

- immigrate;
- study;
- work; or
- visit.

Those who choose immigration must then select a class under which to immigrate:

- business;
- federal skilled worker;
- Quebec skilled worker;
- provincial nominee; or
- family class.

IMMIGRATING

Certain minimum requirements must be met before a person can apply to immigrate. These differ depending on the class identified by the prospective immigrant.

Comprehensive information on the immigration process is available to applicants on the CIC website (www.cic.gc.ca). CIC produces a booklet entitled *A Newcomers Introduction To Canada*, available in print and on the web, that helps applicants plan their move to Canada by providing information on entry requirements and on life in Canada — the tax system, geography, how to enter the work force, how to find a place to live and more.

Those who work with new Canadians have indicated that many prospective immigrants — particularly highly skilled immigrants such as IEGs — make significant use of the web and have access to it in their home countries.⁴ This observation will be further researched in Phase II of the FC2I project. Prospective immigrants also consult with missions, consulates, and relatives and friends who live in Canada. The web will likely continue to be a key point of reference for prospective immigrants, however, as the new immigration legislation will likely result in fewer interviews and thus fewer visits to missions.

Federal skilled worker class

A *federal skilled worker* is someone with at least one year of work experience in the preceding ten years in an occupation listed in Skill Type 0 or Skill Level A or B of the National Occupational Classification (NOC). Engineers fall within the Skill Level A category.

NOC PROFILES

Prospective immigrants can determine if they qualify as federal skilled workers by reviewing the NOC profiles for the occupation(s) in which they have experience. These are available online at www.cic.gc.ca/skilled.

Typically, IEGs apply as federal skilled workers. In 2001, 63 percent of the principal federal skilled worker applicants who self-identified an intended occupation indicated engineering. Often, these individuals were considered engineers in their home countries; this does not mean they meet all of the qualifications for the designation here in Canada. IEGs may also enter under the family class, or as refugees. The latter do not indicate an intended occupation as this is not their primary purpose for entering Canada. In 2001, 304 internationally educated engineers entered under the family class.⁵

Acknowledging responsibility

Canada's new immigration legislation encourages applicants for permanent residence to obtain labour market information before making the decision to apply. All applicants for permanent residence must sign a declaration acknowledging that the issuance of a permanent residence visa does not guarantee employment in Canada, and asserting their responsibility to obtain information on licensing requirements from the regulatory body that governs their profession within Canada.

Important note

The current process to apply as a federal skilled worker class is a relatively new one, put in place under the new IRPA legislation in 2002. Many IEGs have come to Canada under the previous selection system.

4 D. Wolfe from discussions with Maytree Foundation and CIC mid-2002.

5 www.cic.gc.ca

QUALIFICATION CRITERIA

To determine if they will be able to become economically established in Canada as a federal skilled worker, prospective immigrants must score a minimum of 67 points in the following qualification grid.

Factor	Maximum Point Value
1. Education	25
2. Official Languages (ability/proficiency)	24
3. Experience (related to employment)	21
4. Age	10
5. Arranged Employment	10
6. Adaptability	10
Total: six factors	100
Pass mark	67

The goal of the selection grid is to identify those workers whose skills will enable them to establish themselves financially in Canada. Education, language and work experience receive the most points as they have been identified as important considerations by Canadian employers. If an applicant has few or no points in one of the categories — for example, if they don't have pre-arranged employment in Canada — they must score well for each of the other five factors. Having a post-graduate degree (worth the maximum point value of 25 for education) may not necessarily boost the applicant's score to the 67-point minimum. Typically, successful applicants score well for all six factors.

Once prospective immigrants have determined that they meet the definition of federal skilled worker, they can take a self-assessment test (also available on the CIC website) to find out before applying if they have a strong chance of obtaining the minimum requirement of 67 points on the qualification grid. This self-assessment test is a public information tool only and not an official part of the application process.

SETTLEMENT FUNDS

In addition, the prospective federal skilled worker must have the minimum amount of funds required for financial establishment. The minimum requirement for settlement varies depending on the number of immigrants coming over together. An individual immigrant requires \$9,420, while a family of four requires \$17,727.⁶ The funds requirement is waived if an immigrant has pre-arranged employment.

OTHER CLASSES OF ENTRY

While most IEGs enter Canada as federal skilled workers, others enter in the business, family or provincial nomination class.

QUEBEC SKILLED WORKERS

Quebec is responsible for selecting its own skilled workers. Immigrants to that province must still, however, meet federal requirements related to medical, security or criminality. Under the Canada-Quebec Accord, Quebec uses its own selection grid and its point system differs from that of the federal system.

⁶ www.cic.gc.ca/english/skilled/qual-4.html. May 2003.

Business class

To be considered under this class, prospective immigrants must demonstrate their ability to become financially established in Canada. There are three designations under which applicants may be accepted:

INVESTORS

The Immigrant Investor Program seeks to attract experienced persons and capital to Canada. Investors must demonstrate business experience, a minimum net worth of CDN \$800,000 and make an investment of CDN \$400,000.⁷

ENTREPRENEURS

The Entrepreneur Program seeks to attract experienced individuals who will own and actively manage businesses in Canada that will contribute to the economy and create jobs. Entrepreneurs must demonstrate business experience, a minimum net worth of CDN \$300,000 and are subject to conditions upon arrival in Canada.⁸

SELF-EMPLOYED PERSONS

Self-employed persons must have the intention and ability to create their own employment. They are expected to contribute to the cultural or athletic life of Canada or may create their own employment by purchasing and managing a farm in Canada.

Provincial nomination

Provincial nomination is a parallel process to the federal immigration process. It applies when immigrants possess a skill set that satisfies a provincial need. Most provinces have agreements with the federal government that allow them to become more directly involved in immigrant selection in this way. Applicants wishing to immigrate under this class must be nominated by a province.

Some provinces will only take nomination applications from Canadian employers. The province considers its needs and whether the applicant genuinely intends to settle in the province.

The six-factor qualification grid in the federal skilled worker class does not apply to provincial nominees.

Family class

Canadian citizens and permanent residents living in Canada, 18 years of age or older, may sponsor close relatives or family members who want to become permanent residents of Canada. Sponsors must promise to support the relative or family member and their accompanying family members for a period of three to 10 years to help them settle in Canada.

FINAL APPLICATION REQUIREMENTS

All individuals applying to immigrate, regardless of immigration class, must pay application fees and meet security and health standards before they can come to Canada. A physician or medical facility approved by CIC and located outside of Canada processes medical examinations for prospective immigrants. If a medical examination proves successful, and all other documentation and requirements are in order, applicants will receive their immigration visa.

⁷ Ibid.

⁸ Ibid.

COMING TO STUDY

The number of foreign students in Canada has steadily increased over the past few years. According to CIC, by 2001 there were more than 130,000 foreign nationals studying in the country. Of those, 3,070 were studying in undergraduate engineering programs and 2,468 were in post-graduate engineering programs.⁹

Foreign students may study in short-term programs (six months or less), for which a study permit is not required, or enroll in longer-term programs that necessitate a permit. In either case, depending on their nationality, foreign nationals may require a Temporary Resident Visa to enter Canada. To study in Quebec, they also require an authorization from the province (the *certificat d'acceptation du Québec* or CAQ) in addition to their study permit.

CIC offers information regarding study in Canada on its website, as well as a comprehensive application kit and guide to assist students. A study-permit application must be made before coming to Canada, and must include:

- a valid passport;
- a letter of acceptance from the Canadian institution where the student intends to study;
- proof of the applicant's ability to support his or herself and any accompanying family members for the entire stay in Canada (e.g., tuition, living expenses and funds to cover travel to and from Canada);
- a satisfactory medical clearance (when required); and
- the ability to qualify as a temporary resident in Canada, including a temporary resident visa (when required).

Information on how to renew, reapply or remain eligible for study in the event of a study interruption is available to foreign students on the student pages of the CIC website.

Working during and following study

Citizenship and Immigration Canada has very clear rules about the eligibility of foreign nationals for work in Canada. Foreign students may work on the campus of the university or college where they are studying. Under certain conditions, internships and co-op student placements may also be acceptable.

After graduation, foreign students may work for a year in Canada in their area of study. To do so, they require a work permit. To obtain a permit, they must first secure a job offer from an employer. Then, Human Resources Development Canada (HRDC) provides a labour market opinion (or *confirmation* of the job offer). (Some types of work are exempt from this process; for example, in instances where a trade agreement exists.) Finally, application can be made to CIC for the work permit.

An engineer requires either an HRDC confirmed job offer or, if he or she is from the U.S., Mexico or Chile, may qualify as a 'professional' under NAFTA or the Canada-Chile Agreement and not require an HRDC validation. Neither a work permit nor a study permit entitles a person to remain indefinitely in Canada. Work and study permits only confer temporary residence status.

During or after the year of employment following completion of their studies, foreign nationals may wish to apply for permanent residence — as either a provincial nominee or federal skilled worker.

⁹ CCPE Enrolment Report.

COMING AS A REFUGEE

*“Refugees and persons needing protection are people in or outside Canada who fear returning to their country of nationality or habitual residence. In keeping with its humanitarian tradition and international obligations, Canada provides protection to thousands of people every year.”*¹⁰

Canada offers those with a well-founded fear of persecution as well as others who may be at high risk for torture or cruel and unusual treatment or punishment a safe haven through the Refugee program.¹¹

Applicants seeking refugee status must meet certain criteria. For example, a prospective claimant must not have another offer or option within a reasonable timeframe, and CIC must confirm that the person cannot go home and is unable to extend his or her stay in an asylum country. Next, efforts are made to seek other potential new homes for refugees prior to their being considered by Canada. Those who are chosen for resettlement must undergo and pass security, medical and criminal-history screening. Finally, CIC must be satisfied that the refugee will be able to re-establish him or herself in Canada successfully.

As noted earlier, it is not known how many engineers come to Canada as refugees as they do not indicate their intended occupation on their application.

Canada-Quebec Accord

Under the Canada-Quebec Accord, Quebec is responsible for selecting refugees abroad who are destined for that province. The federal government is responsible for ensuring that people selected by Quebec are eligible for refugee status. The federal government also ensures that statutory admission requirements, such as medical, security and criminal checks, are met before issuing a visa.

AREAS OF DISCUSSION FOR PHASE II OF FC2I

- + Several mechanisms exist for entry into Canada, both temporary and permanent. A discussion on how to make information on the job market and regulated professions available throughout the process is essential.
- + Phase II of this project will confirm the most widely used sources of information by immigrants in order to better determine how to ensure IEGs have the information they need prior to making the decision to immigrate.
- + Phase II will also consider the value of having an engineering pre-assessment involved in the immigration process.
- + Examine the Provincial Nominee system to determine its successes and lessons learned.

¹⁰ www.cic.gc.ca/english/refugees/index.html 2003

¹¹ *Ibid.*

3.0

IEGs in Profile

Assembling a profile of international engineering graduates is difficult to do. CIC data on IEGs is based on immigrants' self-identification as engineers. Regulatory bodies gather data on IEGs, but do not do so consistently from one province or territory to the next. Indeed, the regulatory bodies are only in a position to collect statistics at the time an IEG applies for a license and, therefore, only on IEGs who pursue licensing.

Complicating matters further, some immigrants who self-identify as 'engineers' in fact do not meet the standards established by Canada's engineering licensing bodies. They would self-identify in this manner because the term "engineer" is not defined the same way by other countries. Professionals who would be called chemists, agronomists or architects in Canada, may be called "engineers" in their home countries. This distorts the numbers collected by settlement and support agencies, and by the CIC. It prevents differentiation between immigrants who call themselves engineers and those who actually meet Canadian licensing requirements.

In addition, because the regulatory bodies do not track IEGs through the licensing process, it is difficult to determine where they leave the process and therefore to make a determination as to whether or not a particular aspect of the process is proving more difficult to achieve than others.

GENERAL IMMIGRATION TRENDS

While a refined profile of IEGs cannot be compiled, a general profile can be assembled. Following is an encapsulation of national immigration data, followed by statistics on immigrating federal skilled workers:

Immigration levels are linked to many key factors in society ranging from labour market need to general economics to birth rates and overall population growth. In 2002, Canada welcomed 228,575¹² new immigrants.

According to *The Monitor*, CIC's online magazine, China¹³ was the top source country for general immigration in the five years prior to 2002, contributing 15 percent or about 33,000 new immigrants to Canada during this timeframe, followed by India and Pakistan, respectively.

In 2003, Canada expects to receive between 220,000 and 245,000¹⁴ newcomers as permanent residents. Of these, 60 percent (132,000 to 147,000 principal applicants and dependents) are expected to fall within the economic class (which comprises business and skilled-worker entrants), 26 percent (59,000 to 64,500) within the family class, 13 percent (28,100 to 32,500) as protected persons (refugees), and less than one percent in other categories. IEGs will typically apply under the federal skilled worker class — part of the economic class — given that this classification offers them the highest number of points for education and work experience.

In 2002, 53,333 federal skilled workers immigrated to Canada.

In addition, more provinces are establishing Provincial Nomination agreements with the federal government, which allow them to fast-track immigration to their constituencies and ensure their unique skill requirements are better met.

WHAT WE DO KNOW ABOUT IEGs

Statistical information gathered by CCPE in 2002¹⁵ does offer some profile of IEGs who become licensed. Its *National Survey of the Engineering Profession* showed that 88 percent of Canada's licensed engineers were educated in Canada. Five percent obtained their degrees in Europe, three percent in Asia and the remaining engineers from other parts of the world. As far as gender is concerned, 87 percent of men and 91 percent of women were educated in Canada. CCPE's 2002 membership study further showed that:

- 12 percent of Canada's licensed engineers obtained their education abroad. (This could mean that they were born in Canada and educated abroad but most are assumed to be immigrants.)
- Licensed engineers who had immigrated were slightly more likely to be male (they are also slightly more likely to be older and in general, women in the engineering profession are younger than their male counterparts).
- Those who had received their undergraduate degree outside of Canada were more likely to also have a degree at the graduate level.
- Those educated abroad were marginally less likely to be employed on a permanent basis, but slightly more likely to be self-employed or on contract.
- They were more likely to have management or supervisory experience.¹⁶
- They reported higher levels of personal income (which can be linked to their experience in management roles).

12 CIC 2002.

13 With new immigration Act changes of 2002 (the higher English language requirement) it is expected that the number of immigrants from China may decrease.

14 CIC, 2002 predictions for 2003.

15 CCPE 2002 National Survey of the Engineering Profession. Funded by HRDC.

16 2002 National Survey of the Engineering Profession, EKOS Research Associates, Survey conducted in May–June 2002 – final report pending, Ottawa.

- Survey respondents were likely to indicate that while they were fine with their language skills — being able to speak a second or third language — they would like to improve their teamwork and communications skills.

Unfortunately, this information does not offer much insight into how many immigrating IEGs initiate, abandon or complete the licensing process.

STATISTICS CANADA DATA

Findings presented in a Statistics Canada article entitled *Brain Drain, Brain Gain*¹⁷ offer further perspective on immigrating IEGs:

- A total of 11,875 immigrants who'd worked in engineering in their home country came to Canada between 1986 and 1991.
- Between 1992 and 1997, a total of 34,926 immigrants were, during the immigration process, identified as having worked in engineering in their home country (*Education Quarterly*, 2000) — roughly a three-fold increase since '91.
- 11.4 percent¹⁸ of engineers, surveyors, architects and mapping scientists (which all fall within one occupational category in the immigration process) stated their intention to work in their respective fields upon immigration to Canada. Of this group, 7.7 percent had actually realized this goal by 1996.¹⁹

PROVINCIAL STAT COMPILATION

While the provincial/territorial regulatory bodies only collect information on IEGs who apply to become licensed in Canada, once again that data offers a partial profile of the international engineering graduate. For example, provincial statistics show that:

- 19 percent of members of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) were educated abroad.
- At least 30 percent of members of Professional Engineers Ontario (PEO) were educated or trained abroad.
- Typically, only five percent of members of the regulatory bodies in Nova Scotia, Prince Edward Island, New Brunswick and Quebec have been educated abroad.²⁰

PROVINCIAL RESEARCH

Additional research has been conducted by the Government of Ontario. In the summer of 2002, its Ontario Ministry of Training, Colleges and Universities and a number of community partners released a study titled *The Facts Are In!* The document details the characteristics and experiences of immigrants seeking employment in regulated professions in Ontario. Many in the sample — 276, or 42.9 percent — were engineers; they represented the largest group in the study.

According to the Ontario study, many of the surveyed engineers had prepared themselves for integration into the workforce prior to arriving in Canada. Of those who had received information about becoming licensed prior to arrival, approximately 65.8 percent were working in their intended profession and 19.2 percent were employed in non-related jobs. Of

17 Statistics Canada 2000.

18 Between 1990 and 1994.

19 All sourced this page CIC & StatsCan – to be filled in for final edit. See source lists.

20 2002 National Survey of the Engineering Profession, CCPE.

those who had not obtained information about the licensure process before arrival, 50.3 percent were working in their intended profession.

Another key finding was proficiency in language. In the Ontario study, 58.5 percent and 30.4 percent assessed themselves as having good or excellent official language ability respectively.

Overall, 88.5 percent had been aware they would be required to comply with licensing and regulatory procedures in their profession, however, only 56.4 percent knew the steps involved to obtain a license to practice engineering.

AREAS OF DISCUSSION FOR PHASE II

- Determine how to consistently gather information on IEGs within every regulatory body, to assess how they move through the licensing process.
- Constructing a demographic profile of IEGs would allow the profession to better meet the needs of international engineering graduates and improve IEGs' chances of becoming licensed.
- It would be useful to better understand the determinants of success for IEGs — for example, what impact does language proficiency have? What impact does settling within one's own minority group have?
- Identifying IEGs as they immigrate and tracking them through their first five years of settlement could reveal much about how the process of integration could be improved.

4.0

The IEG — Pre-immigration

It is assumed that IEGs considering immigration conduct research to see if their credentials might qualify them to practice engineering in Canada — at the same time as they are investigating Canadian culture, the labour market and language requirements. As immigrant support agencies confirm, immigrants' research directly affects their experience once they arrive.

Some IEGs may wish to begin the engineering licensing process before they immigrate. Certain jurisdictions permit this and additional information is provided in Section 7 of this report.

Information about Canada is available to prospective immigrants in a number of forms — in print, over the phone, via the web or from Canadian embassies, consulates and missions. Based on consultations with immigrant support personnel who indicate that highly skilled immigrants such as IEGs use the web significantly and have access in their home countries,²¹ it is assumed that most IEGs obtain their information about Canada online. For those IEGs who do use the web as their main source of information, data sources are diverse, inconsistent and, in many cases, inaccurate.

A prospective immigrant researching Canada on the web may access any of hundreds of thousands of websites detailing the immigration process, the credential assessment process (for immigration), language training opportunities, and job market information. Many of these sites are out-of-date, and none of them details the whole immigration-to-employment process from start to finish. The potential for confusion is great.

IEGs may have an incomplete or confused understanding of the expectations of the job market and the engineering licensing process. For example, the CCPE provides credential

21 D. Wolfe from discussions with Maytree Foundation and CIC mid-2002.

assessments relating to immigration requirements but is not a licensing body; or the fact that while employers are unlikely to “take a chance” on an IEG without a P.Eng., an engineering graduate can in fact work in an engineering environment without one, or that a full year of Canadian experience is required to earn a P.Eng., or that only credential assessments done by the engineering regulatory bodies contribute toward licensing.

THE CCPE WEBSITE

IEGs who are able to access the CCPE website will find considerable information about the engineering profession in Canada, foreign credential assessment and licensure. A detailed overview of the information presented on the site is provided in Appendix A.

REGULATORY BODY WEBSITES

Many of the regulatory bodies have detailed websites outlining what an IEG must do to become licensed in Canada. More information about these sites — and their addresses — is provided in Section 7 of this document.

EQUIVALENCY ASSESSMENT

Several educational assessments exist that prospective immigrants may consult to assess how the education they’ve received in their home country aligns with the education of Canadians in the same profession. This assists with their employment search but does not apply to their ability to become licensed. Appendix A offers a listing of assessment websites IEGs may come across when conducting a web search. It should be noted that this is a partial list only; it contains government sites only and none of the many private sites that exist.

Beyond these web sources, IEGs may also gather skill requirement information by examining the curricula and academic requirements from Canadian training institutions; for example, from university websites.

What may be unclear to IEGs, however, is that only certain assessments — those conducted by the provincial and territorial engineering regulatory bodies — are valid for engineering licensure. Other services assist with the immigration process and employment.

JOB MARKET DATA

A clear sense of job prospects is critical for anyone considering immigration to Canada. Yet gaining a thorough understanding of the labour market is not straightforward. Vast amounts of information on the Canadian job market exist on the web. For this reason, an IEG’s web search for labour information would yield an unwieldy listing of information sources. More information on the general labour market situation in Canada facing IEGs is detailed in Section 10 of this report.

LANGUAGE TRAINING

In investigating Canada before immigrating, IEGs may find it difficult to identify language training programs. The appropriate websites may not appear within their first ten results when they conduct a web search. A more intensive search may be necessary as may some prior knowledge about Canada’s policy on language training support for newcomers.

Language training is widely available to newcomers, however, through several outlets.

Newcomers to Canada can access language training through a federally funded program called *Language Instruction for Newcomers to Canada* (LINC). *Cours de langue pour les immigrants au Canada* (CLIC) is the French equivalent. LINC and CLIC are free with eligibility to permanent residents and those to whom Canada intends to grant permanent residence, on a part-time or full-time basis. The programs are offered through colleges, school boards and private organizations in most urban centres. In smaller centres, many private companies, public school boards and community colleges offer language training but these programs are not subsidized.

LINC does not bring newcomers' language skills up to the levels required in the complex knowledge-based work environment, but provides the linguistic foundation upon which more advanced language skills may be built.

Information about LINC is available on the CIC website (www.cic.gc.ca/english/newcomer/welcome.) IEGs may also find the information on provincial government websites such as www.settlement.org for Ontario or www.gov.mb.ca/labour/migrate/english/learning_english/ for Manitoba.

English language training is available through several other schools and programs across Canada. Short-term study programs for temporary residents also exist, as do English as a Second Language (ESL) programs (www.eslincanada.com).

Language proficiency requirements and assessment tools are available from the CIC website (www.cic.gc.ca/english/newcomer/esl-e.html).

AREAS OF DISCUSSION FOR PHASE II

- Information on the Canadian licensing system and on the job market for engineers is not widely available and even IEGs who access the CCPE's or its members' websites prior to immigrating may not fully appreciate the licensing system since few countries share Canada's approach. A discussion of how to make this information more widely available and easier to understand, would be valuable. An examination of the practices of provincial jurisdictions currently working through these issues would contribute to this discussion.
- Foreign credentials may be assessed differently by different groups and for different reasons. A discussion around how best to clarify which assessments are for licensing purposes and which are for immigration purposes would be valuable.
- It would be worthwhile to discuss what can be communicated to an IEG about licensure steps that can be taken before they leave their home countries. (Following the lead of some provincial jurisdictions.)
- The project team should investigate the possibility of linking CCPE's EIEAP website with the licensing process in each jurisdiction as well as to job information.
- Assess how frequently IEGs conduct research prior to coming to Canada and if that research assists them in settling in Canada and obtaining meaningful engineering employment.

5.0

Arrival in Canada

While advance research and preparation does seem to reduce the amount of cultural shock experienced by immigrants, arrival to Canada is nonetheless both an exciting and stressful experience for newcomers.

Upon arrival at an airport, dock or land crossing, every newcomer is interviewed by a Canada Customs Officer. The officer requests documentation gathered by the immigrant prior to departing his or her home country, including an immigrant visa. Applicants are required to provide the officer with a list of all household items they have brought with them. Each applicant is then directed to an Immigration Officer to begin the next phase of the process.

The Immigration Officer double-checks the immigrant's documentation, including required visas, and asks a series of questions much like those asked on the Canadian immigration application. The aim is to confirm that each individual is "of good character, and in good health".²² The officer may also ask for proof that any or all immigration requirements have been met — for example, for proof of possession of required funds.

Once the interview is successfully completed, the officer grants authorization for permanent residency and signs the immigrant's Record of Landing or Confirmation of Permanent Residence. Though distribution is not consistent, at this point many newcomers also receive the booklet *Welcome to Canada: What You Should Know*.

LARGER URBAN CENTRES

Immigrants arriving to one of Canada's larger centres, such as Vancouver, Toronto or Montreal, have certain advantages. The larger airports in these cities have onsite Immigrant Reception Services — satellite offices of immigrant-serving organizations. Representatives of

²² www.cic.gc.ca/newcomer

these services greet newcomers upon arrival, invite them to sit and discuss their most pressing issues (often in the newcomer's own language), make contact with newcomers' relatives and arrange appointments with other service agencies.

Immigrants themselves in many cases, support workers are knowledgeable about the stresses and requirements associated with a move to a new country. They provide information about residential communities, services and programs available locally. For example, they advise new immigrants on the requirement to apply for health cards and social insurance numbers soon after they arrive. Immigrants also receive information about free, federally sponsored language training services, and they may be referred to any number of community-based settlement and support services.

RECEPTION AND HOST PROGRAMS

Understandably, most newcomers are primarily concerned with meeting their basic needs²³ — particularly, with finding a place to live and with finding employment. Once they do locate housing, be it temporary or permanent, many immigrants begin to experience shock associated with the move to a new country. Having someone to reach out to in the first few days after arrival is critical.

The Host Program, funded by the federal government, provides support for newcomers, helping facilitate their transition.

Operated by many of the hundreds of immigrant-serving organizations across the country, the Host Program matches an immigrant or immigrant family with an individual Canadian or Canadian family who has volunteered to assist newcomers with their transition. Hosts and host families help immigrants become integrated, locate their ethnic community, practice language skills, learn about their new city or town of residence, and become comfortable with daily tasks such as taking public transportation, banking and shopping.

These relationships provide a bridge between the formalized programs and services of immigrant-serving organizations, and the community in which the newcomer has chosen to make their home. Many new Canadians continue their relationship with their host or host family and with support and settlement organizations long after their first months in Canada.

Beyond these host programs, many Canadian universities offer their own hosting and settlement services for foreign students.

LONG TERM INTEGRATION

The immigrant settlement process continues for years after arrival. Settlement and support service providers offer services beyond reception and hosting to meet immigrants' needs for language training, credential assessment, job training, skill development, life skills training, community assimilation, professional-community affiliation, and labour market training.

Immigration to smaller communities

When immigrants arrive in smaller Canadian communities, they are likely to receive a copy of the *Newcomer's Guide to Canada* during the Customs process. At that point, they are left to begin the process of settlement and integration.

Often in smaller communities, the arrival of an immigrant family has been anticipated and even orchestrated by cultural groups, another family or by the community itself. Indeed,

²³ Discussions with settlement organizations, S. Cosgrove, Winter 2003.

many immigrant families who arrive to smaller centres do so because they have relatives in that community or a job waiting for them. For this reason, it is assumed that immigrants to smaller centres make less use of support or host programs than immigrants to larger Canadian urban centres. This can be researched further in Phase II of the project.

AREAS OF DISCUSSION FOR PHASE II

- IEGs, like all other immigrants, come in contact with a number of organizations when they arrive to Canada. Some groups play a central role in ensuring IEGs are properly supported in their employment and licensure quest but could this be improved and could more groups be involved?
- The extent to which immigrants make use of government-funded services in smaller centres, can be studied in Phase II.
- Greater coordination is required between settlement groups and regulatory bodies. Partnerships — such as the one formed between the Association of Professional Engineers and Geoscientists of the Province of Manitoba and the Citizenship Council (International Centre) — are valuable.
- Should there be a consolidation of settlement resource and licensure information available to IEGs?

6.0

Settlement Support

Once immigrants attend to basic needs such as housing, they typically turn their attention to other matters of settlement — schooling for their children, language training, labour market information and more. Following is an encapsulation of the settlement support information available to them on the Internet, as well as a section on settlement support specific to IEGs.

GOVERNMENT

Three federal government websites provide information relevant to prospective immigrants: Citizenship and Immigration Canada, (www.cic.gc.ca); Human Resources Development Canada; (www.hrdc.gc.ca); and a site called Canada International aimed specifically at foreign nationals (www.canadainternational.ca).

Citizenship and Immigration Canada (www.cic.gc.ca)

This site offers information to those from other countries interested in immigrating to, studying in, working in or visiting Canada. From the main web page, selecting *After you Arrive* brings up a host of menu options regarding settlement. The first of these items reads *Advice for newcomers*. Selecting this option brings the user to a subdirectory of options regarding settlement, including information on employment and language training. The employment section also has sub-sections on regulated and non-regulated professions.

The top bar of the introductory page provides a link to *Other CIC Sites*. Selecting this option brings the user to a number of other sites, links and programs including Human

Resources Development Canada and the Canada International site. This loop helps ensure a user can gain access to the three major federal government sites related to immigration.

Human Resources Development Canada www.hrdc.gc.ca

This site offers very little settlement information for newcomers to Canada. A sidebar menu offers a number of choices but does not include the words “immigrant” or “newcomer”. Should a user choose the *Employers and Entrepreneurs* section — something that may not happen if the immigrant considers himself or herself an employee and not a employer — many more choices appear from a scroll-down menu. Approximately halfway down the page, another selection appears entitled *Recruiting Foreign Workers*. When this is selected, the user accesses a bulletin board, which speaks directly to employers interested in recruiting foreign workers. At the bottom of the page, there are two links for those interested in working in Canada. Both connect to specific sections on the Citizenship and Immigration website.

Overall, the Human Resources Development Canada website is the least helpful federal resource for immigrants seeking information about working in Canada, as it does not contain easily accessed information on becoming employed once one has come to Canada.

Canada International www.canadainternational.gc.ca

This site is specifically designed for non-Canadians and navigation is available in four additional languages beyond English and French. On the main menu, there are four choices, each identified with written and visual symbols. A sidebar menu also offers information options including: maps of Canada; weather information; FAQs; currency-related information; government forms; and information aimed at *Canadians Living Abroad* and *Newcomers to Canada*.

By selecting the *Newcomers to Canada* option on the sidebar menu, under *Services For...*, the user is directed to a number of links that help identify and outline issues and resources for newcomers. These links lead to the CIC site where information on a wealth of topics is available. The user can also reach this information through *Going to Canada*, listed in the main menu. The site contains valuable information for immigrants and foreign workers.

Of the three sites relating to the immigration, settlement and support process, the CIC site contains the most information; it offers a wealth of pertinent information on pre-immigration, arrival, early settlement and ongoing support. Because it is such a multi-layered site, however, it can be difficult to navigate.

FOUNDATIONS, POLICY MAKERS, RESEARCH

Many organizations support the immigration process by researching immigrant needs and reporting their findings to settlement and support agencies. Some offer grants and scholarships to newcomers to help them pursue education, maintain or re-certify credentials or gain basic employment skills. Through their work, these organizations build bridges between governmental organizations and immigrants whose dreams of stable employment and life in a peaceful society depend, in part, on their ability to become fully established in Canada.

PRIVATE BUSINESS

Additional settlement support services are available to immigrants from private Canadian enterprises — typically, law firms, immigration brokers and recruiters, credential assessment

services and immigration consultants. No regulations or standards exist, however, to govern their work, and their services are only available to immigrants for a fee.

Law firms mainly offer information on immigration to Canada, assist with identifying credential assessment services, and facilitate the acquisition of green cards and work permits.

Some companies offer classes on a fee-for-service basis, in which language skills can be honed, resumes developed, and in which general assistance with the employment process is offered. Others offer free initial credential assessment services with online self-tests. The sites may or may not state that similar services are offered by the federal government and non-profit organizations at no charge and IEGs may not realize these assessments are not applicable to obtaining an engineering license.

Some private firms — indeed some not-for-profit settlement organizations — are simply incompetent while others have acted fraudulently. In October 2002, CIC established an arm's length committee to examine long-standing problems in the immigration consulting industry and to propose recommendations to address them based on input from representatives of the legal profession, immigrant advocacy groups, academia and the immigration consulting industry, as well as submissions from organizations and individuals in Canada and abroad.²⁴ The report was submitted to the Minister of Citizenship and Immigration on May 8, 2003. According to the Department's news release on the issue, Minister Coderre plans to review the report and draft an action plan to implement the recommendations in collaboration with provincial and territorial partners.

UNIVERSITIES

Many Canadian universities have either voluntary societies or departments whose role is to assist foreign students with their transition to life in Canada.

MAJOR SETTLEMENT AGENCIES

Several not-for-profit organizations exist with the sole aim of providing general settlement and support services to immigrants. These agencies (listed in Appendix B) are concerned with the basic services newcomers require — information on housing, language training, literacy and computer literacy, skills upgrading and/or training, and with identifying services for professional and trades workers. They also provide general legal information related to tenant protection, child protection and family law. These organizations offer critical resources to new Canadians and refugees; even the most highly skilled workers may come to Canada without a personal support system.

Many of these organizations have developed a high degree of expertise in immigration facilitation and offer some of the most comprehensive services to newcomers. Government, regulatory bodies and professional associations regularly partner with these organizations to facilitate immigrant integration.

There are also settlement organizations whose sole focus is assisting IEGs, in particular with employment issues. The results of the environmental scan completed for this report reveal that, while not widespread, there are small pockets of strong support for IEGs across the country. An overview of the methodology to complete the scan is attached in Appendix B as is information on IEG-specific support programs in each province and territory.

²⁴ www.cic.gc.ca/english/press/03/0316-pre.html

REALITIES TO CONSIDER

When evaluating the sources of information and support available to immigrant IEGs, certain realities should be acknowledged — factors that may affect IEGs' understanding of the job market and the Canadian employment process.

Cultural differences

In many countries, new graduates find jobs through official, government or family networks. The Western process of targeting a specific employer, position or location, and of actively pursuing that position with a resume, letter, interview performance and follow-up may be unfamiliar to some IEGs.

Unfamiliarity with North American employment services

Beyond Canadian government websites, there are of course numerous private and not-for-profit employment sites. IEGs may not be able to distinguish among them and may be overwhelmed by the array of resources.

Presumptions about skills training

IEGs may assume that services such as skills upgrading, language training and settlement support are equally available in every Canadian community when in fact they are not.

AREAS OF DISCUSSION FOR PHASE II

- A web scan of general settlement resources reveals that a significant amount of information is available to immigrants. Further research is required to determine how immigrants use this information and whether they have difficulty in accessing the information they seek.
- Settlement agencies, as newcomers' first points of contact, are often newcomers' first sources of information on the labour market. A discussion on how to leverage this in disseminating information about licensure to IEGs would be valuable.

7.0

Licensing

When an IEG applies to become licensed as a professional engineer in Canada, the overall process each follows is generally the same in every province and territory — verification of education; acquisition of Canadian work experience and passing of a professional practice exam. Most jurisdictions have indicated that qualifying for a license can take anywhere from three months to four years due, in most cases, to the need to obtain suitable employment to gain satisfactory experience. Information on the licensing process in each province and territory is detailed in Appendix C.

Generally, all provinces and territories have a similar assessment process for IEGs:

- All, except Quebec, require candidates to be Canadian Citizens or Landed Immigrants. However, Ontario, Quebec, Manitoba and Saskatchewan allow candidates to start the application process prior to arriving to Canada.
- All require a formal engineering education and if applicants do not hold an accredited degree, they must first apply for an assessment of their academic credentials. A series of examinations may be administered; this is usually decided on a case-per-case basis.
- All require that applicants who do not hold accredited or recognized degrees must pass confirmatory (proficiency) examinations. The number of exams an applicant is required to take depends on the type of education, experience, etc. that they have had. This is determined by the Board in each province or territory. Yukon is the exception; applications for first Canadian registration are accepted but reviewed by the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- Most require potential professional engineers to go through the Engineer-In-Training Process (*also called Member-In-Training and Junior Engineer*). Some provinces or territories

also require proof of language proficiency (i.e. Alberta, Quebec and Nova Scotia). Quebec requires a copy of the applicant's birth certificate. Nova Scotia requires a copy of the applicant's Nova Scotia Health Card and Drivers License as well a copy of their resume and the results of the CCPE Initial Assessment report with a letter.

- All except Quebec require four years (48 months) of engineering experience; Quebec requires three years (36 months).
- All require 12 months experience in a Canadian environment. Only Quebec specifies that the 12-month experience requirement must be acquired specifically in Canada.
- All require references. Most ask that applicants name at least three references, except Manitoba which requires two references, and British Columbia and Nova Scotia which require four.
- All require that applicants pass the Professional Practice and Ethics Exam. British Columbia also requires that applicants attend the ethics seminar either in person or by distance learning.
- British Columbia, Quebec, Alberta and the Northwest Territories each have a flowchart illustrating the licensing process, available on their websites.
- Regulatory bodies with a small number of annual IEG applications like APEY and APENS can often walk IEGs through the licensing process in a personal manner; this can ease the process.

PEO has extended its licensure process to permit prospective immigrants, who self identify as IEGs, to apply before they come to Canada. Applicants can download PEO's application for licence from its website, complete and forward it to PEO. They are required to provide documentary proof of their qualifications for assessment and include the application fee to initiate the process.

The goal is to reduce the time it takes for IEGs to receive their licence. Also, it enables them to know if their academic qualifications meet PEO's standards for licensure before they decide to immigrate to Canada.

If the applicant's academic documents are not in English or French, they are required to submit a notarized English translation as well as the original documents. They must also provide detailed subject/course descriptions and a detailed record of their engineering experience for PEO's review. This assessment and a response should take no longer than two (2) months after PEO has received all the required documents. Once an IEG's documents have been assessed, PEO will advise them on what technical examinations they will be required to write, in the event their academic qualifications are assessed to be deficient, or in order to confirm that their qualifications are equivalent to PEO's academic requirements for licensure. As soon as the IEG arrives in Ontario, they may continue the licensure process without being required to pay any additional application licence fee.

This program has been in place since early 1999, and close to 300 IEGs have taken advantage of it. To date²⁵, almost 100 of them have arrived in Ontario and are continuing the process; about five percent have since obtained their licence.

PEO also issues Provisional Licences to applicants who have satisfied all of the licensing requirements except the minimum 12 months of acceptable engineering experience in a Canadian jurisdiction.

Difference in licensing for IEGs

The processes for Canadian graduates is different than for international engineering graduates. Both Canadian and international engineering graduates must obtain three to four years of engineering experience, one of which must in a Canadian environment. They must also successfully complete the Professional Practice Examination. The difference is in the acceptance of the academic qualifications. Graduates from CEAB degree programs will have their academic qualifications accepted without further testing. For international engineering graduates, their academic qualifications will be carefully assessed to determine if they must write confirmatory examinations to verify their knowledge.

25 As of August 2003.

The Faculty of Engineering at the University of Manitoba has developed a pilot project that, upon successful completion, will ensure that participants (immigrant engineers) are considered academically qualified by APEGM. The Co-op component of the program will also count toward some of the Canadian EIT experience required.

APEGGA is currently evaluating whether or not they should be more inclusive and, if so, in what manner. Particularly considering the IEG, there may be value in addressing the creation of an additional category of licensure (within interested jurisdictions) that permits handling the majority of transition-to-Canada related issues. This would facilitate recognition of the applicant's current technical standards, language proficiency, experience etc. and the subsequent identification of required exams, training or experience to gain full engineering licensure. However, during this "internship" period, the applicant would be a member of the provincial professional association and subject to all rules, benefits and support programs — he/she would "have a home" in Canada and be encouraged to progress to the level of licensure deemed necessary to satisfy personal career needs.

AREAS OF DISCUSSION FOR PHASE II

- It would be useful to determine if the differences among the licensing processes of the regulatory bodies have an impact on an IEG's ability to successfully navigate that process. Should there be a process to facilitate the licensing of IEGs in multiple jurisdictions?
- Given the differences in nomenclature across the country, it could be helpful to examine whether or not a common language would be useful.
- In as much as the regulatory bodies have developed processes in the context of their own jurisdictions, a discussion around best practices could be helpful.
- Do IEGs obtain their licenses faster if they begin the process overseas? Do a higher percentage succeed? Could distance learning play a role?
- What role can employers play in encouraging licensure among IEGs, and indeed, in facilitating that process?
- The profession must consider a single registration form for multiple jurisdictions to facilitate interprovincial/territorial mobility.
- Are there repetitive activities that can be standardized in the licensing process i.e. is there a need to continue to assess degrees from specific universities?

8.0

Perspectives of IEGs and Those who Work with Them

This section of the report a) explores issues relating to the challenges faced by IEGs seeking employment in Canada, including their opinions on and experience with the foreign credential recognition models (both for licensing and immigration) and existing programs offered to help them with integration; and b) offers the perspective of those from the settlement community who work with IEGs.

IEG PERSPECTIVE – SUMMARY OF FOCUS GROUP RESULTS

Profile of international engineering graduates

The IEGs who participated in this study²⁶ represented several countries and a variety of engineering disciplines. While some had come to Canada to study engineering, many came to Canada with engineering degrees and engineering experience in other countries. A range of educational backgrounds (from the Bachelor level to Ph.D. level) was also represented. Many had work experience in more than one country prior to coming to Canada, with several having more than ten years work experience prior to coming to Canada.

Information sources outside of Canada

Prior to coming to Canada, most had sought information from only a few sources. The Embassy was cited as the most frequent source of information, as well as information from friends/relatives who had visited or had come to Canada. Some had sought information over the Internet and several had contacted CCPE and had their documents evaluated through the CCPE Initial

²⁶ The IEGs who participated in the focus groups entered Canada under the previous immigration rules. A new immigration law came into effect in 2002.

Assessment Program. A few had tried to contact companies for job search information, but had no success and felt this process was futile without actually being in Canada.

The immigration process

Most study participants had come to Canada seeking better opportunities and a better quality of life for their family. Most felt the immigration process was smooth. Many had their documents evaluated by CCPE prior to coming to Canada and felt their immigration process was hastened by CCPE stating they would be considered to be an engineer in Canada. Although this assessment also stated that it did not guarantee they would be eligible for licensure to practice engineering in Canada, most felt confident about their opportunities based on the assessment from CCPE. This assessment also contributed greatly to their points required for immigration approval, leading them to believe that Canada wanted and had opportunities for international engineering graduates.

Information sources in Canada

Upon arriving in Canada, IEGs reported seeking several sources of information to obtain housing, work, licensing and educational opportunities to improve their cultural integration. Meeting other IEGs and contacting provincial engineering regulatory bodies are valuable sources of information to new immigrants. Most of the information that they received came from friends and contacts they met who were in similar situations. IEGs reported that the provincial engineering regulatory bodies were helpful in directing them to different services or associations.

The licensing process in Canada

The need to acquire a professional engineering license and in particular, the length of the process was described as an extremely frustrating experience by almost all study participants. Most felt they would be able to work immediately due to their education, experience and the CCPE assessment. Many did not understand the licensing process at all, since in their country their degree in engineering is their license to practice engineering.

Several voiced their frustration regarding the document evaluation process through the provincial regulatory bodies. Different sources are used for document evaluation, some for immigration, some for acceptance into Canadian universities and some for the licensing process. Many are confused by the different results as well as the long waiting periods to get a response from the regulatory bodies.

Overall, there were very few positives mentioned during this study about the process of trying to obtain a license as an engineer in Canada. Most regarded the provincial regulatory bodies positively, stating they were helpful and encouraging. Several stated their appreciation for the Law and Ethics workshop/exam, feeling this course was very helpful to them. A few IEGs who had completed the licensing process indicated an understanding and appreciation for the one-year Canadian experience requirement.

Areas of discussion for Phase II – focus group participants

Study participants in the Vancouver, Toronto and Halifax groups were asked to write recommendations to improve the process. (These written comments and full focus group results can be found in Appendix D.) Based on their comments, areas for discussion in Phase II include:

- There is a need for better information prior to coming to Canada (e.g., a detailed outline of the processes required to become an engineer, the importance of the license in Canada, the job market, etc.)
- Determine methods of encouraging employers to hire IEGs before they are licensed (perhaps involve the government in this process such as establishing programs that might compensate employers for hiring international engineering graduates.)
- Shorten processing time (perhaps have paid staff on evaluation committees.)
- Create different methods of evaluating experience (e.g., only by interview or the ability to waive the one-year Canadian experience).
- Create organizations that could provide contacts and network opportunities for those in similar situations.
- Consider allowing the writing of confirmatory examinations abroad; it is understood that PEO, for example, already allows for the writing of professional practice examinations in more than 40 countries.

Areas of discussion for Phase II – settlement workers

In the early stages of this initiative, the original project manager travelled across the country and met with a number of settlement organizations. The information in this section is drawn from a questionnaire that was delivered to a number of community organizations during a series of in-person interviews. The results of these interviews are available in Appendix D.

- Programs for IEGs should begin pre-arrival. They should take the form of information sessions, and should facilitate a matching program in Canada, where the main objective would be to get the applicant into the engineering profession, not merely into the labour market.
- Another major challenge is that mandates, which are dictated largely by those who provide their funding (Citizenship and Immigration Canada, Human Resources Development Canada, Department of Canadian Heritage), direct that their main focus be to getting a client off of social assistance and into the workforce, not into their profession. While this is understandable, getting a client working and getting a client working in their profession are two different processes. This highlights the need to address the issue of dedicated resources required as an investment so that IEGs are encouraged to make the transition into their profession, not merely into the labour market.
- If provisions could be made to enable settlement and support services to focus on getting the client placed within their profession, then the numbers entering the profession would better reflect the numbers of IEGs.
- One service provider interviewed indicated that the highly specialized technology that engineers use (e.g. AutoCad) should be offered through a program specifically linked to the profession.
- Networking for IEGs is a critical component of their settlement process, and could be set up through the employment community and the settlement and support service sector.

9.0

Other Professions

The purpose of this section is to review the policies and procedures in licensed professions as they apply to foreign educated professionals. A study was commissioned which examined ten Canadian professions — five medical and five non-medical — where there is a statutory requirement to obtain a licence to practise the profession or to carry out certain key functions associated with the profession, such as signing statutorily required reports, as in the case of audits or actuarial reviews.

The review of the ten Canadian professions was based on research and interviews with national associations and with three bodies (colleges or associations) at the provincial level. Under the British North America Act, responsibility for licensing professions lies within provincial jurisdiction. In some cases, for example, veterinarians and actuaries, responsibility has been effectively transferred to a national body. Owing to the prominence of Ontario as the province in which the majority of recent immigrants initially settle, that province was normally included among the three provinces reviewed. Otherwise, an effort was made to be broadly representative of practices across Canada.

The description of licensing policies and practices focuses on those aspects of each profession's model that were judged pertinent to the CCPE and its constituent members. Each discussion of a profession ends with a list of salient points. A full list of professions studied and the methodology are detailed in Appendix E.

MEDICAL PROFESSION

The study examined procedures at the national level and in Ontario, Manitoba and British Columbia.

- Technical competence (i.e., knowledge of medical science) is determined through examinations administered by nationally recognized bodies, i.e., the Medical Council of Canada, the Royal College of Physicians and Surgeons of Canada and the College of Family Physicians of Canada.
- Clinical experience (i.e., residencies) is administered by university-affiliated teaching hospitals.
- In some provinces, there are carefully screened exemption procedures for residency requirements.
- There are no exemptions from the technical examinations administered by the nationally recognized bodies.
- Manitoba's special course in communications for foreign trained physicians may be an example worth exploring for the engineering profession.
- Provincial government control over the number and location of residencies — a key factor in limiting access to the medical profession — has no counterpart in the engineering professions.

Registered Nurses

The study examined procedures at the national level and in Ontario, British Columbia and Newfoundland.

- Technical competence is established through a nationally recognized examination.
- Practical experience is a key component of qualifications and must not be more than five years prior to application for registration.
- Ontario's special course for foreign trained nurses offers a potentially useful example, especially in regard to its inclusion of non-technical preparation.

Pharmacists

The study examined procedures at the national level and in Ontario, Manitoba and Alberta.

- In Ontario, it is estimated that 50% of pharmacists are foreign-trained. The Ontario procedures, therefore, appear to balance reasonable access to the profession with protection of the public interest.
- It is notable that Ontario — which has a high proportion of foreign-trained pharmacists — also has the most rigorous screening procedure. This includes a 48-week program, comprising 16 weeks of academic instruction and 32 weeks of supervised internship. The high tuition for the academic program (\$7,000) and its availability only at one campus, do not appear to be significant deterrents.
- Technical competence is established in most provinces by successful completion of both the National Qualifying and the National Evaluating Examination.

Dentists

The study examined procedures at the national level and in Ontario, Quebec, and Alberta.

- Technical standards and competence are determined at the national level through the National Dental Examining Board whose standards and examination are recognized by all provinces. NDEB certification is a prerequisite to licensing in all jurisdictions, regardless of where the dentists were trained.

- The profession does not currently accredit any undergraduate programs outside Canada or the United States.
- The Qualifying Program, which is mandatory (except in Quebec) for dentists trained outside of Canada or the United States potentially represents a significant barrier owing to its high cost (\$40,000 per year). While there are limitations on the number of seats in the Qualifying Program, it was not possible to determine if this represented a significant constraint.

Medical Radiation Technicians

The profession is governed by provincial legislation. The study examined procedures at the national level and in Ontario and Quebec.

- The national examination is used by all provinces, except Quebec.
- Outside of Ontario and Quebec, the national body administers certification.
- As a profession whose members are all employees, the overriding factor of employer responsibility must be taken into account. This enables the profession to provide temporary certifications and to rely on employer evaluation of probationary periods. However, this period of probationary employment must include exposure to all listed medical and technical procedures.
- The national examination can be written outside Canada, prior to the applicant's immigrating to Canada.

NON-MEDICAL PROFESSIONS

Chartered Accountants

The study examined procedures at the national level and in Ontario, Quebec and British Columbia.

- In the chartered accounting profession, the critical distinction is not the former jurisdiction of an applicant (in the geographic sense), but the IQAB status of the credentialing body. Thus, an applicant holding a credential from the Institute of Chartered Accounts of England and Wales would follow the "designated" path, while an applicant holding a credential from the Association of Chartered Certified Accountants (also in the UK) would follow the "non-designated" path.
- The profession administers a national qualifying examination (CARE) for persons holding credentials from "designated" accounting bodies outside Canada. Provinces administer specific qualifying examinations.
- Most provincial bodies administer their own professional training, in addition to designated training that is delivered through universities.
- Reciprocity agreements accelerate the conferring of Canadian qualifications.

Lawyers

The study examined procedures at the national level and in Ontario, New Brunswick and British Columbia. It should be noted that, as a civil code jurisdiction, Quebec has unique features which preclude participation in a national qualifying scheme. In Quebec, the

function of notary, which is governed by *Chambre des notaires du Québec*, includes many functions that are typically performed by a lawyer in common law jurisdictions.

- In some provinces, foreign-trained lawyers can apply for a reduction in the prescribed articling requirement, based on their years of professional experience.
- The evaluation of legal training and legal experience is predicated on the distinction between the common law, civil code and hybrid traditions in law.

Actuaries

The actuarial profession is similar to the chartered accounting profession in that the title is statutorily reserved, the credential is conferred by a professional body, and certain types of legally mandatory reports require the signature of a qualified actuary. Specifically, pension and insurance reports must be prepared and signed by an actuary.

- Unlike other professions, there is only one qualifying body — the Canadian Institute of Actuaries. *There are no provincial bodies.*
- All licensing for actuaries is undertaken at the national level.
- The emphasis in qualifications is on practical experience and Canadian experience.
- The planned “affiliate” status is expected to assist foreign trained actuaries who cannot be readily qualified in Canada to obtain relevant employment and thereby open the door to qualification in Canada.
- The clear statement of requirements for qualification is thought to be responsible for deterring unqualified applicants and avoiding the frustration that arises from time-consuming and ultimately unsuccessful application attempts.

Architects

This study examined procedures at the national level and in Ontario, Alberta and New Brunswick. The practice of architecture is provincially regulated.

- All certification of foreign educational qualifications is undertaken at the national level.
- The internship requirement is a major component of the qualification process and includes provincially-specific periods of supervised employment.
- The certifying examination is a common North American examination.

Veterinarians

This study examined procedures at the national level and in Ontario.

- In the veterinarian profession, the evaluation of credentials and technical competence is undertaken chiefly at the national level. The practice of veterinary medicine is regulated by provincial statutes. Qualified veterinarians are licensed by a provincial regulatory body.
- Technical competence examination requirements in Canada and the US are the same.
- The nationally accepted competence standard applies in all provinces.
- The national body determines the qualifications of foreign trained applicants.

AREAS OF DISCUSSION FOR PHASE II

- Pharmacists and nurses, both professions concerned with public safety, have high ratios of foreign-trained professionals.²⁷ While the licensing processes of other professions cannot be judged outside of the context in which those processes are situated, there may be

²⁷ 50 per cent of Ontario pharmacists are foreign-trained.

practices and policies of interest to the engineering profession. A discussion around the following could be of interest:

- A number of professions rely on national competency examinations to establish technical competence. (This is also the effective practice of most of the state boards in the United States that are responsible for licensing professional engineers; see Section 11.) Sub-national examinations focus on regulations specific to the jurisdiction and professional ethics.
- Some professions have adopted a North American competency examination.
- The evaluation of non-Canadian practical experience (or clinical experience in the medical professions) is a major challenge for all Canadian professions and for engineering professions outside Canada (see Section 11.)
- Many foreign-trained professionals have limited ability, after immigrating, to document and prove their experience in terms of the paradigm used by a profession to specify the requisite practical experience. This problem becomes more acute when the standards for practical experience are set out with a high degree of rigour and structure.
- In Canada, the professions differ only moderately in their English language proficiency requirement. All professions rely on standardized proficiency tests.
- There are dramatic differences across professions in the costs associated with becoming licensed in Canada.

Other, specific observations:

- Manitoba's special course in communications for foreign trained physicians may be an example worth exploring for the engineering profession.
- Ontario's special course for foreign trained nurses offers a potentially useful example, especially in regard to its inclusion of non-technical preparation.
- For actuaries, there is a planned "affiliate" status that is expected to assist foreign trained actuaries who cannot be readily qualified in Canada to obtain relevant employment and thereby open the door to qualification in Canada.
- The clear statement of requirements for qualification as an actuary is thought to be responsible for deterring unqualified applicants and avoiding the frustration that arises from time-consuming and ultimately unsuccessful application attempts.
- There are some themes which the registrars may have been reluctant to pursue over the phone with a consultant. The Steering Committee might consider hosting a round-table with a few of the more relevant professions.

10.0

Economic and Labour Force Conditions

This section presents a profile of the economic environment and labour force growth that IEGs join when they arrive in Canada. First, it addresses past trends in the labour force for engineers, second, it provides a macro-level view of the importance of immigration to growth in the Canadian economy, and finally, it looks at the situation of professionally-trained immigrants when they arrive in Canada.

The data are all drawn from Statistics Canada sources at the national level.²⁸ Due to the limitations of sample size and confidentiality considerations, breakdowns by province or engineering specialty are often not possible with available data. In all cases, the most detailed available figures are presented. The figures in Sections 10.1 and 10.2 were extracted from Labour Force Survey data by Statistics Canada, specifically for this study. Those in 10.3 and 10.4 are recently-released results of the 2001 Canadian Census.

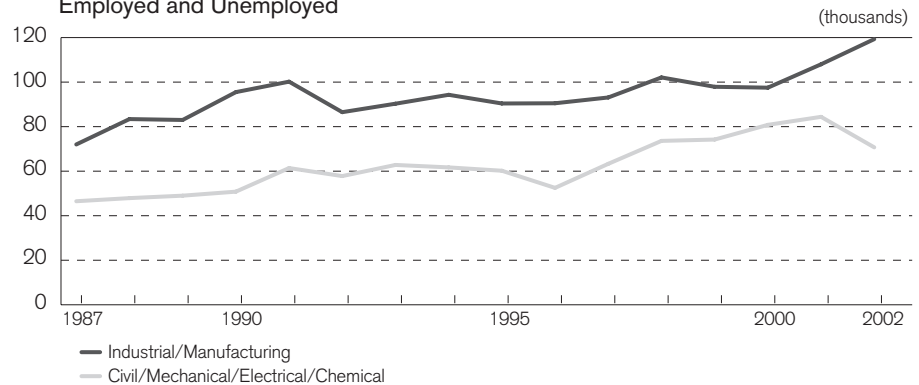
It should be noted that in this section the term “engineer” is used in its broadest sense, to include anyone who has completed university training in engineering, whether or not they are licensed to practice in Canada. In both the Canadian Census and the Labour Force Survey, “engineers” are self-identified. However, Statistics Canada guidelines require that individuals in this occupational group have a university degree, making a distinction between engineers and engineering technologists.

²⁸ This section addresses the national economy and national immigration trends only. Provincial or regional situations are left for future analysis.

THE ENGINEERING LABOUR FORCE

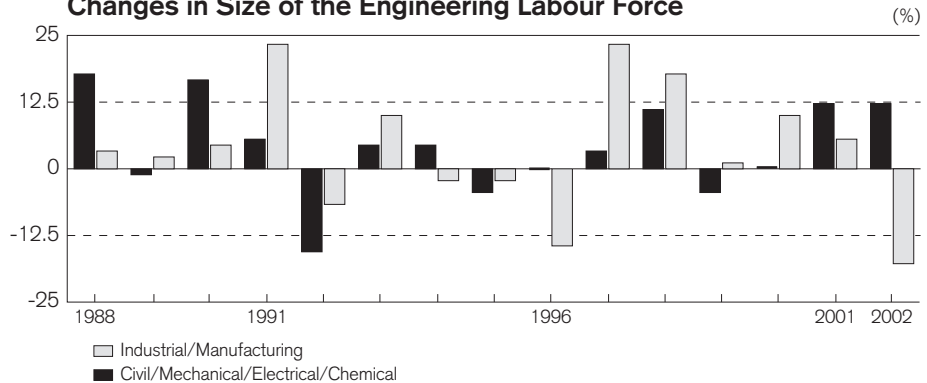
The engineering labour force has experienced substantial growth over the past 15 years. The number of engineers in the labour force²⁹ in Canada has increased from about 118,500 in 1967 to 190,000 in 2002. This represents an average increase of about 4.3% or 5,100 engineers per year, for the last fifteen years. Growth has been greater among the combination of civil, mechanical, electrical, electronics, and chemical engineers than among industrial and manufacturing engineers.³⁰ The former, comprising more employment in government and consulting, as well as expansion in private sector electrical and electronic employment, grew by an average of 4.7% per year. The labour force of industrial and manufacturing engineers, employed mainly in private industry, grew by an average of just 3.7%.

Chart 1
Engineers in the Labour Force
Employed and Unemployed



The size of the engineering labour force reflects the business cycle, particularly for industrial and manufacturing engineers. The increase in the number of engineers in the labour force has not, of course, been uniform over the 15-year period. Growth and decline in the size of the engineering labour force have reflected changes in economic conditions. Shrinkage in '92, '95 and '96, '99 and '02 was matched by substantial growth in '88, '90, '91, '97 and '98. Furthermore, growth and decline have at times been highly regional.

Chart 2
Year-over-Year
Changes in Size of the Engineering Labour Force



29 The engineering labour force is comprised of self-declared engineers who are employed in engineering jobs or unemployed, and excludes those who are no longer looking for work, and those who have taken jobs outside the occupational category.

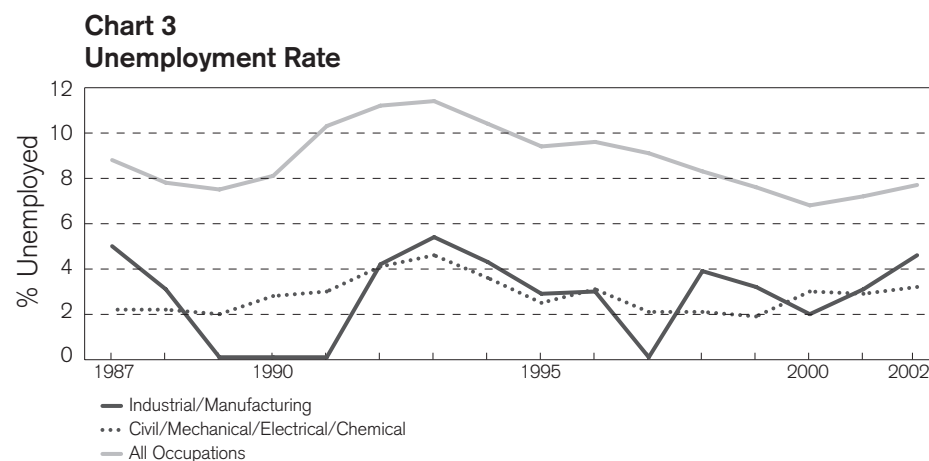
30 The category of Industrial and Manufacturing Engineers includes metallurgical and materials engineers; mining, geological and petroleum engineers; aerospace engineers; computer engineers (except software engineers); and other types of engineers not classified elsewhere.

Labour force trends were more volatile for industrial and manufacturing engineers, than for those in civil, mechanical, electrical, electronics and chemical engineering. The former group registered three years when expansion was about 20%, and two when contraction from the previous year neared 15%.

UNEMPLOYMENT RATES AMONG ENGINEERS

While labour economists view immigrants as a source of much-needed technical expertise, members of the public sometimes see immigrants as competition for “home-grown” employees. This concern becomes more prominent when unemployment rates are higher and there is competition for a limited number of jobs. However, an examination of unemployment rates for engineers suggests that this dynamic should be a relatively minor concern because unemployment rates are relatively low and increases are rarely sustained in this occupational group.

In the engineering labour market, unemployment rates have been consistently low, relative to most other occupations. In the past 15 years, the unemployment rate for engineers has exceeded 5% only once — in 1993. During this same period, the overall unemployment rate across the broader labour force ranged between about seven and eleven percent. These figures suggest that while engineers are subject to cyclical unemployment, their base level of structural unemployment is substantially lower than other occupational groups.³¹



Industrial and manufacturing engineers, more than other engineering specialties, have experienced fairly volatile labour market conditions. The table above provides a visible demonstration of this volatility. The unemployment rate for all other engineering specialties has ranged between about two and four percent — a rate reflecting relatively short-term dislocation and minor structural adjustments in the economy. For industrial and manufacturing engineers, however, the unemployment rate went from close to zero in 1989 and 1991, to over five percent in 1993.

It must be recognized, however, that the foregoing analysis may under-represent employment difficulties for certain individuals. First, provincial or regional rates can be much higher than national unemployment rates. Second, figures such as these do not take into consideration under-employment (part-time, or outside one’s field of expertise), nor withdrawal from the labour force by discouraged job-seekers. Nevertheless, these

31 Hostland, Doug. *Structural Unemployment in Canada: Some Stylized Facts R-96-1E*. Applied Research Branch, Strategic Policy, HRDC, 1995.

figures are presented to dispel the argument that unemployment among Canadian-born engineers is sufficiently high that the entrance of foreign-trained individuals poses a threat to the profession.

THE IMPORTANCE OF IMMIGRATION FOR THE CANADIAN ECONOMY

Immigration is a vital component of the current and continued strength of the Canadian economy, particularly immigration of skilled workers such as engineers.³² Statistics Canada notes that there has been a substantial demand for new skills, with a growth of 9.5% in the labour force in the past ten years. Nearly half of this growth has been in highly skilled occupations that normally require university training. The engineering labour force, for example, grew by 17.6% from 1991 to 2001.

Two demographic trends underline the importance of immigration in meeting the demand for skilled workers. First, the workforce has become much “greyer”, with a rise in average age, and the prospect of higher retirement rates. Second, low fertility rates in Canada for the last thirty years have resulted in fewer young people entering the working-age population to replace retirees. Given this environment, immigration is an important factor in providing sufficient skilled workers to fuel economic growth. Statistics Canada notes that “immigrants who landed in Canada during the 1990s, and who were in the labour force in 2001, represented almost 70% of the total growth of the labour force over the decade.”

Engineering graduates comprise a large proportion of recent immigrants to Canada. Among well-educated recent immigrants, engineering was the top field of study for men, and the fifth largest field of study for women. Nearly one in five men (18.8%) who immigrated to Canada in the 1990s with post-secondary credentials was a university graduate in engineering. Among educated female immigrants, 5.3% were engineers.³³

INTEGRATION OF IMMIGRANTS INTO THE LABOUR FORCE

The integration of immigrants³⁴ into the Canadian labour force is a wrenching process. Numerous facts underline the challenges faced by an immigrant looking for work:

- In 2001, among 25 to 44 year olds, 66% of recent immigrants (landed in past five years) were employed, compared to 82% of Canadian-born people.³⁵
- The unemployment rate of recent immigrants was almost twice that of the Canadian-born (12.1%, compared to 6.4%).
- 36% of immigrants in Canada for five years or less were below Statistics Canada’s “low income” cutoff.

In terms of earnings, immigrants to Canada are not integrating into the labour force as successfully today as in the past. Typically, recent arrivals have earned less than Canadian born employees, but the gap has narrowed as immigrants acquire more experience in the Canadian labour force. However, immigrants arriving in Canada during the 1990s were particularly hard hit by the economic downturn of the early nineties. While these immigrants

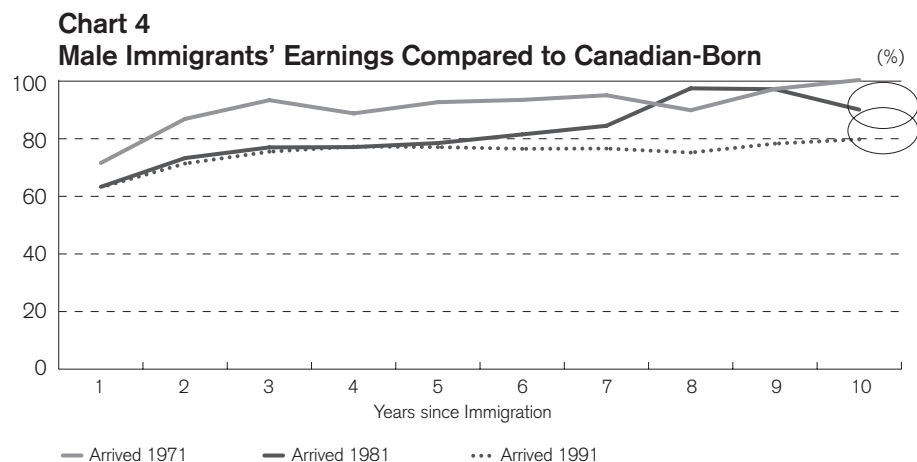
32 *The Daily, February 11, 2003*. Statistics Canada, Ottawa, 2003. (Of course, other factors such as adequate capital, access to foreign markets, and productivity levels also impact economic growth.)

33 “Education in Canada: Raising the Standard”. Statistics Canada Publication 96F0030XIE2001012. 2001 Census, 2003.

34 Note that “immigrant” refers to individuals arriving in Canada under a number of different circumstances including, skilled workers, family class immigrants, and refugees.

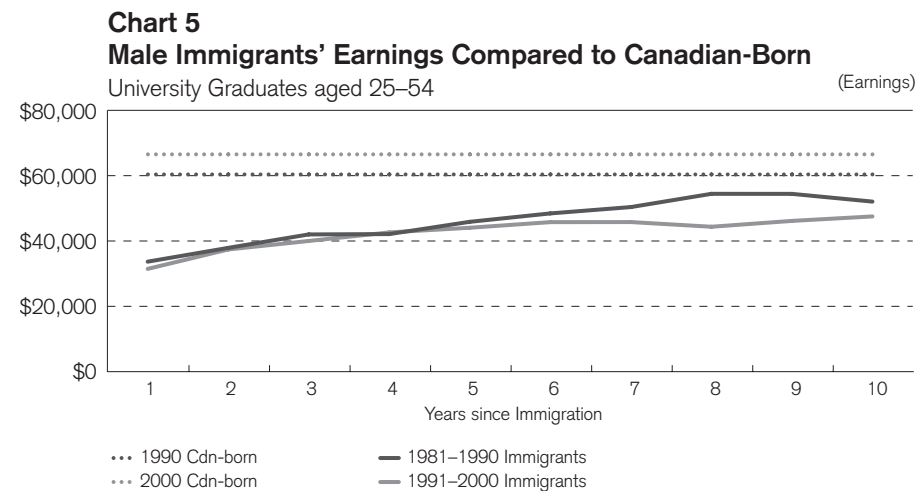
35 *The Daily, Thursday, June 19, 2003*. “Low Income Rates Among Immigrants”. Statistics Canada.

did eventually regain some ground, Statistics Canada notes that “the earnings of recent immigrants, compared to those of the Canadian-born, have deteriorated sharply.”³⁶



In the past, immigrants' earnings have equalled those of the Canadian-born by about ten years after immigration. Immigrants who arrived in Canada before the 1980 Census were making 72 cents for every dollar made by the Canadian-born in their first year, but their earnings equalled the Canadian-born by their tenth year in Canada. In 1990 and 2000, immigrants of one year were earning just 63 cents for every dollar made by Canadian-born employees. But, in 2000, the differential after ten years in Canada was still 80 cents for every dollar made by the Canadian-born.

The premium in earnings gained by having a university education is not as large as it has been in the past for immigrants to Canada. In 1990, university-educated male immigrants aged 25–54, were earning 86 cents for every dollar earned by their Canadian-born counterparts, after ten years in Canada. By 2000, the same category of immigrants was earning, after ten years, only 71 cents for every dollar of a university-educated male of the same age, born in Canada.



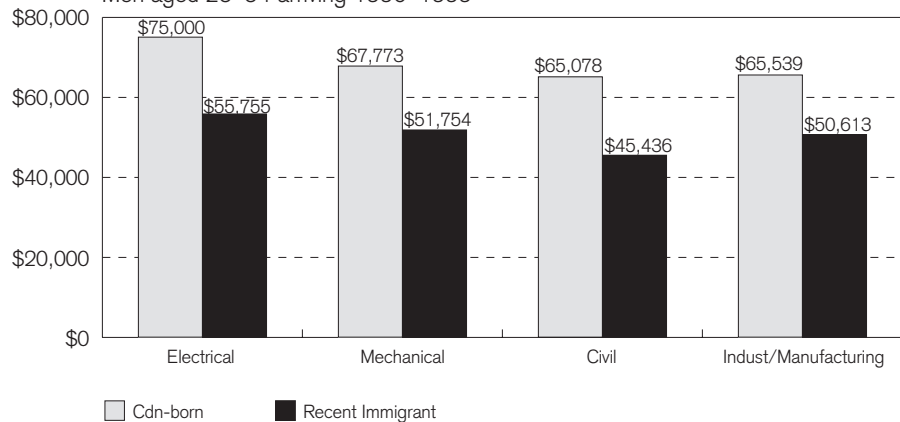
36 "Earnings of Canadians: Making a Living in the New economy". Statistics Canada Publication 96F0030XIE2001013, 2001 Census, 2003.

In the past, having a university degree has “protected” recent immigrants from having a low income. This is much less the case now, compared to twenty years ago. Statistics Canada notes that “the gap in low-income rates between the Canadian-born and recent immigrants was highest among those who had a university degree, particularly those with applied science degrees.”³⁷ The deterioration in earnings of recent immigrants is attributable, in part, to less robust economic conditions than 20 years ago. Labour market entrants of all kinds, including young Canadian-born university graduates, have experienced declining earnings over the same period. But, there were also declining returns for foreign work experience — it would appear that Canadian firms are now recognizing work experience from other countries less than in the past. Furthermore, Statistics Canada suggests, “higher education credentials from foreign universities may also have received less recognition [than in the past].”³⁸

Changes in the composition of immigration in the past 30 years account for some, but not nearly all of the income handicap experienced by recent immigrants. Two factors that may affect the ability of immigrants to assimilate into the Canadian labour force are country of origin, and language. The proportion of immigrants from the Orient, the Indian sub-continent, and the Middle East increased from one-quarter to more than one-half from 1980 to 2000. Two-thirds of recent immigrants had a home language other than English or French, compared to just under half in 1980. However analysis of income data controlling for these characteristics indicates that disparities in earning capabilities persist. Less than half the negative effect on income was due to source region, home language, education level or family type and age. This led Statistics Canada to conclude “[income] differences persist, likely due to cultural differences, education quality, and the extent to which employers recognize education credentials and experience.”³⁹

Recent male immigrants who are university graduates may be employed in professional and technical jobs for which they are trained, but some are employed in low-paying, low-skill jobs. Engineering jobs comprise four of the top thirty occupations employing the majority of recent, university-educated, male immigrants. Four engineering specialties together account

Chart 6
Male Immigrants’ Earnings Compared to Canadian-Born — 2000
 Men aged 25–54 arriving 1990–1999



37 *The Daily, Thursday, June 19, 2003*. “Low Income Rates Among Immigrants”. Statistics Canada. Applied Science includes many occupations in the physical and life sciences, including physicists, chemists, geologists, biologists, engineers, architects, mathematicians, actuaries, and information systems professionals.

38 *The Daily, June 19, 2003*. “Low-Income Rates Among Immigrants”.

39 Picot, Garnett, and Hou, Feng. “The Rise in Low-Income Rates among Immigrants in Canada”. Statistics Canada Publication 11F0019MIE2003198, 2001 Census, 2003.

for almost six percent of all males aged 24–54 who came to Canada in the ten years preceding the last Census. However, an equal number of *well-educated*, recent male immigrants were also employed in low-skill jobs such as retail sales, driving taxis and trucks, janitorial, shipping and receiving, and security.

Comparing the average earnings of recent immigrants to the Canadian-born, there is a wage gap of between 70 and 77 cents per dollar earned by a Canadian-born engineer for the four specialties with the most immigrants. In 2000, electrical and electronics engineers who had immigrated in the past ten years earned 74.3% of Canadian-born engineers in the same specialty. For mechanical engineers the figure was 76.3%; for civil engineers, 69.8%; and for industrial and manufacturing engineers, 77.2%.⁴⁰ While these figures do not control for years of work experience or other factors, they nevertheless suggest that even immigrant engineers who find jobs may suffer a wage disadvantage.⁴¹

CONCLUSIONS

Statistics Canada Census data has been used to describe the economic and labour market context into which International Engineering Graduates immigrate. The data demonstrates that employment in engineering has grown consistently — an average annual increase of 4.3% over the past 15 years. Unemployment has been relatively low for engineers during that period, although more difficult economic conditions have impacted the profession recently. The labour market has been more volatile for industrial and manufacturing engineers, but despite this, their average unemployment rate over the long term has been just 3.3%. The average unemployment rate for all other types of engineers been 3.9%.

Immigration is an important source of skilled workers for the Canadian economy, and this is particularly so for occupations in the applied sciences. Engineers are a significant proportion of highly-educated immigrants coming to Canada — the number one field among males immigrating during the 1990s.

The transition into the Canadian work force is difficult for immigrants, even highly-educated ones. Census data from 1980 onward suggest that immigrant integration is becoming even more difficult, with more unemployment, lower starting salaries, and less likelihood of matching the earnings of Canadian-born colleagues.

40 "Earnings of Canadians: Making a Living in the New Economy". Statistics Canada Publication 96F0030XIE2001013, 2001 Census, 2003.

41 These figures include all self-reported immigrant engineers, including those who were unemployed or employed in unrelated jobs.

11.0

Other Jurisdictions

The purpose of this section is to review the policies and procedures of engineering licensing bodies in jurisdictions other than Canada. The description of licensing policies and practices in each country focuses on those aspects judged pertinent to the CCPE and its constituent members. Full details are supplied in Appendix F.

UNITED KINGDOM

The UK system of credentialing professional engineers has distinctive features that are not commensurate with licensing of professional engineers in Canada:

- The practice of engineering, for the most part, is not restricted by the formal requirement for a licence. The status of credentials is based on tradition and the perceived standards that are maintained by the 35 professional institutions. Consequently it cannot be said that, by refusing a credential, a professional institution is barring an individual from practising engineering.
- Credentialing is undertaken by 35 professional institutions that are organized in terms of specializations or disciplines. A credential is specific to a particular engineering field.
- Engineering technicians are governed by the same professional institutions as professional engineers. The institution, therefore, can credential a foreign-trained applicant at a level below that of professional engineer, if his or her qualifications and experience make that appropriate.
- The key mobility issues for the UK are those associated with the European Union (EU). These are governed by mobility directives which effectively give most engineers who are qualified elsewhere in the EU, the right to practise in the UK.

UNITED STATES

There are several features of the American system of credentialing professional engineers that distinguish the U.S. system from the Canadian model. In particular, most American states restrict the licensing requirement to civil, mechanical and electrical engineering where there are public safety considerations. As well, licensing is administered by statutory bodies that are separate and distinct from professional engineering societies. Notwithstanding these important differences, there are, however, features of the U.S. system which may warrant further consideration.

- A distinctive feature of the licensing criteria used by most U.S. state boards is the “credit” system whereby total credits are a flexible combination of formal education and experience. This allows credit to be given for non-accredited training. When experience is sufficient, this experience can compensate for the absence of an accredited engineering degree, subject to certain minimum educational requirements.
- All U.S. state boards rely on national examinations to demonstrate technical competence. Local examinations pertain to ethics and knowledge of state legislation.
- Some U.S. state boards rely on private evaluating firms to determine the quality of foreign training, while others rely on the national accreditation body.
- The New York State Board requires participation in continuing education as a condition of license renewal.
- In general, licensing fees are modest and pose no barrier.

AUSTRALIA

The Australian system of credentialing professional engineers is only partly commensurate with the Canadian model. The practice of engineering is formally licensed but only recently. The former legislation did not require registration. However, the Engineering Profession Act, 2000 does require compulsory registration for all engineering practitioners and permits reservation of certain functions for engineers. The Act (which was adopted in early 2001) gave professionals two years from the date of promulgation before compulsory registration and statutory reservation of certain functions becomes operative.

However, engineering technicians and technologists are also credentialed by Engineers Australia. Engineers Australia, therefore, can credential a foreign trained applicant at a level below that of CPEng, thereby providing access to a recognized designation and the assistance that designation provides in securing relevant engineering employment.

- Engineers Australia set out detailed competence and performance standards for its evaluation post-graduation experience. These standards are central to the perceived economic value of the CPEng designation. Engineers Australia therefore requires all applicants to document their professional experience in terms of the paradigm set out in its detailed description of competence and performance standards.
- *Washington Accord* status is a factor in the evaluation of prior experience. For applicants from *Washington Accord* jurisdictions, there is a strong likelihood that prior experience will meet some or all of the Engineers Australia’s competence and performance standards. For applicants from non-*Washington Accord* jurisdictions, prior experience is unlikely to meet Engineers Australia requirements.

- The Engineering Practice Report and the Career Episode Reports that comprise it are distinct procedures for documenting experience in light of detailed performance and competence standards.

SOUTH AFRICA

There are features of the South African model of professional regulation that make this system non-comparable to the Canadian model. Although engineering functions will shortly be statutorily reserved to registered engineers, at present there is no formal licensing requirement. In South Africa, there is also the need to balance between restricting access to the practice of engineering, in the interests of public safety, and accommodating the interests of persons whose formal education was disadvantaged under the previous apartheid regime. The latter issue will pose the most difficult challenges to the licensing system when it comes into force.

- As in the UK and Australia, ECSA also registers engineering technicians and technologists. This allows ECSA to register a candidate at a lower level than professional engineer, while still enabling that candidate to have access to engineering-related work and to progress in his or her career.
- Educational attainment in a Washington Accord jurisdiction leads to a less rigorous scrutiny of post-graduation experience, provided the individual has at least three years of experience. Effectively ECSA extends recognition to qualified engineers in Washington Accord jurisdictions.
- The emphasis in practical experience requirements is on levels of responsibility and on public safety interests.

AREAS OF DISCUSSION FOR PHASE II

This study cannot claim to be a comprehensive review of the way in which other Canadian professions license foreign-trained professionals. Nor can this study claim to be a comprehensive review of the policies and procedures of other engineering professions outside of Canada. Nevertheless, the survey of licensing practices set out in this report may provide a basis for considering whether practices and procedures used by other professions or other jurisdictions have potential applicability to Canadian engineering.

It would be unwise to develop a catalogue of “best practices,” based on the policies and procedures of other professions and other jurisdictions. Other professions and other jurisdictions often face similar licensing challenges, when dealing with foreign-trained professionals. However, the particular technical and experience-based requirements, as well as statutory history, of other professions and of the engineering profession in other jurisdictions argue against any simple transposing of their policies and procedures to the Canadian engineering profession.

The following observation is advanced only for discussion and consideration:

- Among the engineering professions studied, the Australian profession publishes the most rigorous and structured standards for post-graduation experience. By contrast, the published standards of the U.S. state boards — where certain functions are statutorily reserved to licensed engineers — are significantly less structured and rigorous than those of Australia.

12.0

Canadian Employers' Experience with International Engineering Graduates

The purpose of this section is to provide an overview of the experience of Canadian employers with international engineering graduates. The study is based on 21 interviews with engineering managers or human resources managers in companies that employ a minimum of five engineers. The results of the interviews reflect the individual experience of these engineering managers or human resources managers with international engineering graduates over the past three to five years.

LEVEL OF EMPLOYMENT

Employers reported mixed experience with the level of employment of international engineering graduates. Approximately half of the employers interviewed reported that international engineering graduates worked at the same level as Canadian-trained engineers. The remainder reported either that international engineering graduates usually worked at a lower level, i.e. engineering technologist, or that the company's experience was mixed.

Employers pointed to three factors as important in determining the level of employment of an international engineering graduate. First, and by far the most important, is the individual's ability to communicate in English (or, in Quebec, in French). Second, is the individual's prior employment experience in Canada. Individuals with no, or comparatively little, prior Canadian engineering employment are more likely to be hired into technologist level positions than engineering positions. Third, employers in some industries attach particular importance to professional licensure and will not recruit or promote individuals into

"International engineering graduates work at the same level as Canadian trained professional engineers. This is true for all the international engineering graduates including those from [Eastern Europe, China and South Asia]."
Major Utility

"If it is an international engineering graduate's first job – the company is more cautious. If the international engineering graduate has years of experience, he or she would work at the same level as Canadian trained engineers."
Consulting Firm

engineering positions unless they are registered by the relevant engineering association/ordre.

Our interviews suggested that the jobs for which international engineering graduates are hired are usually above entry-level positions, unless the individuals have no prior experience whatsoever. In other words, *virtually all of the employers whom we interviewed took some account of the experience and age of their international engineering graduates when determining positions for which those individuals would be suitable.* This may have implications for the internship programmes or experience requirements of the regulatory bodies. Many of the employers interviewed do not see international engineering graduates as requiring the same degree of supervision or mentoring as would be the case for a recent graduate who is employed as an engineer-in-training.

Of the 21 employers interviewed, two made reference to explicit company policies that require professional registration for all engineering positions. If an international engineering graduate does not hold a P. Eng. designation, then he or she either would not be hired or would only be hired into a technologist-level position. (It should be noted that, while only three interviewees referred to policies requiring a P. Eng. designation, from other sources we are aware that a greater number of these companies have such policies or, at least, give strong preference to persons who are registered.)

"They work more at the technologist level. However, this depends on the individual's capabilities – there is no reason why they cannot work at the same level as Canadian trained professional engineers."
Major Manufacturer

Many companies are reluctant to discuss licensing issues when the study is being conducted by a body such as the CCPE which is comprised of organizations with licensing powers. Nevertheless, our interviews point to a possible tension between assessing an international engineering graduate's suitability for an engineering position based solely on his or her skills and experience and assessing suitability based on professional registration. *Approximately half of the companies interviewed for this study appear to assess suitability solely, or almost solely, on the basis of skills and experience. This may have led these companies to de-emphasize professional licensure as a qualification.*

TECHNICAL KNOWLEDGE AND PRACTICAL EXPERIENCE

Virtually all employers reported that international engineering graduates whom they employed had a technical knowledge of engineering that was equivalent to that of Canadian-trained engineers. Indeed, the experience of most employers was that international engineering graduates training was sufficiently strong that there was little or no need, on the company's part, to test for technical knowledge. It should be noted that these comments were typically made in the context of engineers whose university training was not completed in jurisdictions that are party to the Washington Accord on mutual recognition of educational qualifications. Moreover, the comments regarding technical equivalency were made in terms of each company's engineering requirements. If, as is likely, Canadian engineering training

"The company does not test international engineering graduates on engineering theory... International engineering graduates are very well trained technically."
Major Manufacturer

exceeds the technical requirements of many Canadian employers, it should not be surprising to discover that many Canadian employers judge foreign engineering training to be equivalent, even when a rigorous and objective comparison of curriculum leads to a different conclusion. Among the employers interviewed, only one expressed

"International engineering graduates' knowledge of engineering theory is not as good for those engineers without a mastery of English. However, knowledge of engineering theory is hard to evaluate, because the engineer may know the material and just have trouble communicating it."
Major Manufacturer

a reservation about the technical qualifications of international engineering graduates. That employer, however, qualified its reservation by noting that weakness in English communication may mask technical competence.

If the technical training for international engineering graduates was generally deemed commensurate to that of Canadian-trained engineers, the same cannot be said of the applied engineering experience of those international engineering graduates who obtained their qualifications outside of the US or the UK.⁴²

"International engineering graduates are a little less practical – they are more theoretical."
Consulting Firm

Approximately two-thirds of the employers interviewed assessed the practical experience of international engineering graduates in solving engineering problems as weaker than that of Canadian-trained engineers. For some employers, this difference was moderate or marginal.

For others, the gap was much more significant. In particular, one employer noted that international engineering graduates were much more likely to have difficulty with engineering problems that required creativity or innovation. Another noted that international engineering graduates need to be re-taught technical specifications.

"This [i.e., applied engineering] is where international engineering graduates require a little more direction from others."
Major Manufacturer

Three factors were suggested as explanations for the difference in the quality of practical experience. In some countries, formal qualification as an engineer may not require significant practical experience. In other cases, employment conditions may have been so poor that technically qualified engineering graduates were unable to find engineering employment at an appropriate level. Finally, some international engineering graduates immigrate to Canada shortly after completing their university training.

NON-TECHNICAL SKILLS

Canadian employers were unanimous in identifying language skills as the most important skill weakness of international engineering graduates. This observation, of course, did not apply to engineers trained in English-speaking jurisdictions. As well, many engineers who were trained in Western Europe acquired proficient English (or French) in the course of elementary and secondary school education. Engineers from south Asia were also often exempted from this observation, if they had been educated in English-medium schools.

Language skills deficiencies affect the overall employability of international engineering graduates in three ways. In the first place, companies that require their engineers to deal with customers are reluctant to employ international engineering graduates in these positions, if their language skills are not up to the required standard of proficiency. Second, many companies — especially in the manufacturing sector — have adopted a team-based organizational model in which engineers must work with, and communicate with, other engineers, as well as non-engineers. Poor language skills seriously affect the ability of an international engineering graduate to work effectively in a team-based organizational unit. Finally, some engineering jobs require engineers to explain technical issues to non-technical staff. Indeed, in some companies, an engineer may report to a non-engineer. In these circumstances, poor language skills can be a significant impediment.

"[Communication] is where the international engineering graduates really fall down. Communication is very difficult for them. This is primarily for the Asian trained engineers. Language and culture are the problem. [However], the engineers from the U.S. and Western Europe are comparable to Canadians."
Consulting Firm

42 The failure of interviewees to mention other jurisdictions, such as Australia, New Zealand, or Germany does not imply that engineers who qualified in those jurisdictions are lacking in practical experience. Rather the principal examples of equivalency that arose in most interviews were the US and the UK.

WORKING IN TEAMS

As noted, a large number of Canadian employers use an engineering team as their basic organizational unit. These engineering teams usually include technicians or technologists

"It was much more difficult for the foreign-trained engineer to work in a team. He preferred to work alone, not in a team setting. His social ability was not the same as the other engineers."

Major Manufacturer

"The international engineering graduates operate 80% as well Canadian trained professional engineers in their ability to work with other members of the engineering team. Their abilities are somewhat reduced due to verbal and writing deficiencies."

Major Utility

and, in some cases, individuals with qualifications in science disciplines other than engineering. The ability of engineers to work in engineering teams is therefore critically important to many Canadian employers. Other studies have pointed out that team-based methods of organizing work put a premium on communications skills and co-operative problem-solving. Many employers rate these "soft skills" as highly as technical skills. The employers interviewed for this study were divided on the affinity of international engineering graduates for work in engineering teams. Approximately half of the employers

interviewed reported no significant difference between Canadian-trained and international engineering graduates. However, half of the interviewees reported that international engineering graduates were less comfortable working in engineering teams.

Most employers who reported that international engineering graduates had some difficulty working in engineering teams attributed this difficulty to language barriers. Consistent with

"International engineering graduates are used to a more structured business environment."

Major Manufacturer

this view, these employers reported that the difficulties diminished as language skills improved. Some employers, however, felt that there were also cultural factors. In some countries, "engineer" is a social designation, as well as an occupational designation. As well, in many countries a greater degree of hierarchy and structure is the norm. The team-based organizational model, it was noted, is more prevalent in North America.

"Some international engineering graduates are very good, while others don't quite get it [i.e., how to work in teams]"

Major Manufacturer

Several employers, it should be noted, felt that most "engineers", regardless of where they acquired their training in Canada or elsewhere, had some difficulty adjusting to a team-based organizational model.

EXPLAINING TECHNICAL ISSUES

"International engineering graduates (except for the U.S.) are inferior to Canadian trained professional engineers because of language and cultural differences [in explaining technical problems to non-technical staff]. The engineers from the [some countries] are more abrupt in their communication style..."

Major Manufacturer

"If a international engineering graduate has the language skills – then he or she can present problems and solutions very well."

Major Manufacturer

Most, although not all, employers found international engineering graduates less capable of explaining technical problems and options to non-technical staff. The majority of employers attributed this weakness to language difficulties. However, as with the ability to work in teams, some employers also considered cultural factors to be relevant. One employer noted that, in his experience, many international engineering graduates were not accustomed to explaining technical issues to non-technical staff or having a reporting relationship to non-technical staff.

It should be noted that some employers also felt that many Canadian-trained engineers also have difficulty in explaining technical issues to non-technical staff.

KNOWLEDGE OF NORTH AMERICAN BUSINESS PRACTICES

Knowledge of North American business practices was another area of particular weakness reported by companies. More than three-quarters of those interviewed indicated that international engineering graduates were particularly weak in their understanding of North American business practices. To some degree, this also applied to engineers trained in the UK. For some employers, lack of knowledge of North American business practices is not a

significant consideration if the engineers are doing design work or do not need to be familiar with regulatory requirements. However, where engineers are involved in selling or in customer support, familiarity with North American business practices is important. The absence of this familiarity is a significant barrier for international engineering graduates. One major manufacturer commented on the general lack of understanding of business economics among international engineering graduates. Other studies have found that an increasing number of engineering positions require an understanding of both business processes and business economics. International engineering graduates are at a disadvantage in securing such positions. The effect may be to channel international engineering graduates into more technical positions where their lack of understanding of North American business practices is sometimes less consequential.

"The international engineering graduates operate half as well as Canadian trained professional engineers in their knowledge of Canadian business practices. This is a cultural thing – they do not recognize the importance of economics and finances. They are not familiar with how to make sound business decisions – they are more technical and have difficulty understanding financial considerations."
Major Manufacturer

Most employers felt that it took approximately two years for an international engineering graduate to become familiar with North American business practices. Particular reference was made by a Quebec-based employer to courses in business practices offered by the OIQ.

"It only took a short time for the international engineering graduates to understand and adopt Canadian business practices."
Major Utility

One employer commented that in some engineering fields, North American technical standards differ from the standards used in other parts of the world. International engineering graduates are often not familiar with North American technical standards.

"If it is the international engineering graduate's first job in Canada, there is a little bit of a period required to understand Canadian business practices... After 1–2 years the foreign-trained engineer has equivalent knowledge."
Consulting Firm

SECOND LANGUAGE ADVANTAGES OF INTERNATIONAL ENGINEERING GRADUATES

Some employers noted that there were advantages to international engineering graduates with second language abilities. This observation applied mainly to companies with branches, customers or suppliers in Europe and Asia. For at least one interviewee, this advantage was of particular importance.

SALARIES OF INTERNATIONAL ENGINEERING GRADUATES

More than one interviewee noted that salaries for international engineering graduates who are recent immigrants are generally lower than salaries for Canadian-trained engineers with approximately equivalent professional experience. In practical terms, this usually means being hired into a lower-paid classification. The lower salary reflects chiefly the skills weaknesses noted in this section, i.e., English (or French) language proficiency, the ability to work in teams, the ability to explain technical issues to non-technical staff, and knowledge of North American business practices. The study did not explore the amount of this salary differential or the rate at which the differential diminishes. Nevertheless, it should be noted that the recently immigrated, international engineering graduates bear the cost of non-technical skills weaknesses both in reduced employment options and also in lower salaries. The interview results suggest strongly that these reduced employment options and lower salaries are attributable chiefly to weaknesses in non-technical skills and not to deficiencies in technical skills.

PROPENSITY FOR EMPLOYMENT-RELATED TRAINING

Two-thirds of the employers interviewed reported that international engineering graduates were more interested in pursuing additional training than Canadian-trained engineers. The

"The international engineering graduates are more aggressive about pursuing additional technical training. They are all interested in receiving additional training."

Major Utility

remainder — with one exception — judged foreign-trained and Canadian-trained engineers to be comparable in their propensity for employment-related training. Only one interviewee suggested that international engineering graduates were less inclined to pursue employment-related training.

One interviewee felt that international engineering graduates tended to be more specialized than Canadian-trained engineers. Other interviewees noted that the international engineering graduates whom they recruit often have advanced engineering degrees (which frequently implies a greater degree of technical specialization). There is a suggestion in some of the interviews that this creates a tension. The additional training which some international engineering graduates are said to prefer relates to their areas of specialization. However, the employment-related training that their employers wish them to pursue is more often related to business practices and non-technical skills.

In some respects, comparisons with Canadian-trained engineers are not germane. What is important, and underscored by virtually all interviewees, is that international engineering graduates have considerable keenness in taking additional training that will improve their professional prospects. This interest in additional training creates a potential opportunity for regulatory bodies to address the career needs of international engineering graduates and thereby strengthen their identification with the Canadian profession and with the Canadian system of professional licensure.

"International engineering graduates are 120% keener in advancing their technical base than Canadian-trained engineers. One of our international engineering graduates has his doctorate and another has his master's degree. They are generally less interested in advancing into a managerial role, but are more interested in enhancing their technical skills."

Major Utility

TRAINING NEEDS

Employers identified three areas in which international engineering graduates often require training:

- English (or French) as a second language,
- Business practices,
- North American technical standards

As well, while not explicitly addressed, the interview results suggest that many international engineering graduates may benefit from an internship programme that is designed with their distinctive needs and previous training and experience in mind.

ENGLISH (OR FRENCH) AS A SECOND LANGUAGE – E(F)SL

Employers were unanimous in identifying improved English (or French) skills as the single most important skill area for international engineering graduates to address. There are at least three broad levels of E(F)SL that can be identified. The first is basic English (or French) communication. These programmes are typically offered by Boards of Education, colleges, and community-based organizations. The focus of basic E(F)SL is learning elementary language skills that bring the individual to a certain minimum level score on a standard examination, such as TOEFL or TSE. It is unlikely that the regulatory bodies would wish to enter this highly specialized field of adult education.

The second level of E(F)SL may be termed *E(F)SL for Professionals*. At this level, individuals already have a basic command of English (or French), but require polishing and practice to bring their oral language skills to the level that is expected of a person in a professional occupation.

"The most important training required for them is to improve their writing and oral skills."

Major Utility

Again TOEFL and TSE are the benchmark examinations. The score levels would be commensurate with those that are required by the regulatory bodies for licensure. Significantly, E(F)SL training to bring an individual to this level is not as readily available. Nor does training at this advanced level receive the same degree of government support. When employers refer to language skills deficiencies, it is chiefly language skills at this level that they intend. In partnership with post-secondary institutions, the regulatory bodies may be able to address this gap for international engineering graduates. Given the importance of language skills, the regulatory bodies may be able to attract corporate interest in supporting such programmes. Without doubt, training in *English (or French) as a Second Language for Professionals* would be seen as an important contribution by both companies and international engineering graduates.

The third level of E(F)SL that is relevant to international engineering graduates is may be termed *Technical E(F)SL*. This type of language training focuses on writing, presenting or explaining technical matters. The focus on technical communication distinguishes this type of E(F)SL training from the first and second levels. *Technical E(F)SL* is occupationally specific. There are few, if any, opportunities for international engineering graduates to take courses in Technical E(F)SL. Such courses as are offered, for example through the University of Toronto's Professional Development Institute, are not focused on second language learners. Among other professions, the Manitoba College of Medicine offers a special course in "Canadian Communications for Physicians Trained Abroad."

"The most important training required is writing skills. The engineers at [our company] are required to write technical and non-technical documents."
 Consulting Firm

BUSINESS PRACTICES

Employers identified three areas of business practice knowledge where international engineering graduates are at a disadvantage. The first of these is a general appreciation of business culture and business practices in North America, noting the differences in practices here and in other parts of the world. The second important area of business knowledge is bidding, tendering and contract administration from both the purchaser and supplier perspective. Finally, some employers also pointed to the need for international engineering graduates to be trained in the basics of regulatory compliance — chiefly health and safety, environment and labour standards. The first of these areas of business knowledge is specifically focused on the needs of international engineering graduates. The other two areas are similar to the type of training that has been suggested by some employers as appropriate to the curriculum for engineers-in-training.

"International engineering graduates are not familiar with relevant regulations."
 Major Manufacturer

"International engineering graduates need more exposure to business practices and guidelines relevant to their industry. They need to be familiar with Industry Canada, CRTC, FCC, etc. "
 Major Utility

NORTH AMERICAN TECHNICAL STANDARDS

As noted, in certain fields, North American technical standards differ from those in many other parts of the world. Knowledge of these technical standards is critically important for some engineering jobs. International engineering graduates who lack this knowledge can be at a serious disadvantage. However, it is debatable whether the regulatory bodies can play a role in addressing this problem. Engineering technical associations and professional development centres may be better vehicles for providing access to such training.

"The biggest issue for an international engineering graduate is to learn all the new codes and standards that are common to North America, but not the rest of the world."
 Consulting Firm

SPECIALIZED INTERNSHIPS FOR INTERNATIONAL ENGINEERING GRADUATES

As noted earlier, many international engineering graduates are recruited into positions that would not normally be described as entry-level. Consequently employers do not expect to provide the same degree of supervision as would be required for an entry-level position, nor do they plan to make available the mentoring that might be provided to a recent graduate. Many international engineering graduates have significant work experience prior to immigrating. As well, the average age of many international engineering graduates is higher than that of recent Canadian graduates. In light of these considerations, some employers may be impatient with licensing requirements that, in their view, do not take sufficient account of the distinct circumstances of international engineering graduates. The regulatory bodies may wish to consider specialized internships for international engineering graduates that acknowledge that these individuals have a different status and different needs than recent graduates.

AREAS FOR DISCUSSION IN PHASE II

The interviews conducted for this study suggest a number of general findings:

- The term “international engineering graduates” covers a broad spectrum of individuals. At one end of the spectrum are engineers who were trained in an English-speaking jurisdiction, such as the US, the UK or Australia. These individuals are viewed by employers as having technical qualifications that are equivalent to those of Canadian-trained engineers. Mid-way in the spectrum are engineers who trained in non-English speaking jurisdictions and who hold post-graduate qualifications. These individuals often lack language skills and knowledge of North American business practices. Nevertheless, they are valued by employers for their technical specialization and will often be hired into engineering positions. Further along the spectrum are similar individuals who lack post-graduate training, but who had significant practical experience prior to immigrating to Canada. These individuals may be hired either into engineering positions or into technologist positions, depending on how an employer assesses an individual’s suitability. At the far of the spectrum are recent graduates of universities in non-English-speaking countries whose undergraduate programs are not judged commensurate with Canadian (and *Washington Accord*) standards and who have little or no practical engineering experience. Employers will typically likely hire these individuals into technologist positions, rather than engineering positions.
- Although none of the employers interviewed made reference to the *Washington Accord*, they nevertheless appear to treat engineers trained in jurisdictions that are party to the *Washington Accord* as equivalent in technical skills to Canadian-trained engineers.
- None of the employers interviewed found international engineering graduates lacking in technical proficiency. This applied equally to engineers trained in jurisdictions that are not party to the *Washington Accord*.
- Proficiency in English (or French) is the key factor in determining an employer’s assessment of an international engineering graduate’s suitability for employment.
- Though secondary to language proficiency, knowledge of North American business practices is also an important consideration for employers. However, this factor is more likely to affect the level of employment into which an international engineering graduate is hired whereas language proficiency tends to determine whether an individual is hired.

- Most engineering-intensive employers have experience recruiting and managing international engineering graduates. In many of these companies, individuals who obtained their engineering education outside Canada now occupy managerial positions. Companies that judge a foreign-trained individual suitable for engineering employment are unlikely to allow the absence of professional registration to deter them from recruiting or promoting such a person, if a license is not legally required. This is especially the case where the international engineering graduate holds post-graduate qualifications. The significant increase in the number of international engineering graduates seeking employment may be leading some companies to reconsider the importance they previously attached to professional licensure.
- To maintain the credibility and standing of professional licensure among employers in sectors where registration is not legally required, it is in the strategic interests of the regulatory bodies to have policies and programmes that demonstrate an understanding of the distinctive circumstances and career challenges of international engineering graduates. The regulatory bodies need to avoid a situation in which there is a loss of support for professional licensure among both international engineering graduates and the companies that employ them. This will be particularly important as a growing number of international engineering graduates advance into managerial positions.
- Upon review of this information, it was noted that lack of Canadian cultural and technical knowledge may hinder IEGs in obtaining work. Even a person with more than ten years of overseas experience would be unfamiliar with such things as Canadian codes, products, construction costs, specifications, tendering processes and construction law.
- The regulatory bodies should consider partnering with post-secondary institutions to offer programmes in *English (or French) as a Second Language for Professionals*. These programmes would assume a strong level of proficiency in basic English (or French) language skills. The purpose of this advanced training would be to assist international engineering graduates in polishing their English (or French) language proficiency to a level that is suitable for professional employment. This training would cover the gap between proficiency scores commonly achieved by graduates of basic ESL or FSL programmes and the proficiency scores required by the regulatory bodies for professional registration.
- The regulatory bodies should consider partnering with professional development centres, where they exist, to offer programmes in *Technical English (or French) as a Second Language for Engineers*. This training would focus on the oral and written presentation of technical matters.
- The regulatory bodies should consider facilitating or offering training in essential North American business practices. Among the topics covered by this training would be:
 - tendering, bidding and administering contracts,
 - basic regulatory compliance under health and safety and environmental statutes,
 - organizational practices (especially team methods of organizing engineering work),
 - business development and client relationships.
- The regulatory bodies should consider developing a special internship program for international engineering graduates that would take account of their distinctive circumstances and accelerate their progress towards professional registration.
- Employers will be involved in the Steering Committee of Phase II.

13.0

Areas for Discussion in Phase II

IMMIGRATION

- Several mechanisms exist for entry into Canada, both temporary and permanent. A discussion on how to make information on the job market and regulated professions available throughout the process is essential.
- Phase II of this project will confirm the most widely used sources of information by immigrants in order to better determine how to ensure IEGs have the information they need prior to making the decision to immigrate.
- Phase II will also consider the value of having an engineering pre-assessment involved in the immigration process.
- Examine the Provincial Nominee system to determine its successes and lessons learned.

IEGs IN PROFILE

- Determine how to consistently gather information on IEGs within every regulatory body, to assess how they move through the licensing process.
- Constructing a demographic profile of IEGs would allow the profession to better meet the needs of international engineering graduates and improve IEGs' chances of becoming licensed.
- It would be useful to better understand the determinants of success for IEGs — for example, what impact does language proficiency have? What impact does settling within one's own minority group have?
- Identifying IEGs as they immigrate and tracking them through their first five years of settlement could reveal much about how the process of integration could be improved.

IEGs BEFORE IMMIGRATION

- Information on the Canadian licensing system and on the job market for engineers is not widely available and even IEGs who access the CCPE's or its members' websites prior to immigrating may not fully appreciate the licensing system since few countries share Canada's approach. A discussion of how to make this information more widely available and easier to understand, would be valuable. An examination of the practices of provincial jurisdictions currently working through these issues would contribute to this discussion.
- Foreign credentials may be assessed differently by different groups and for different reasons. A discussion around how best to clarify which assessments are for licensing purposes and which are for immigration purposes would be valuable.
- It would be worthwhile to discuss what can be communicated to an IEG about licensure steps that can be taken before they leave their home countries. (Following the lead of some provincial jurisdictions.)
- The project team should investigate the possibility of linking CCPE's EIEAP website with the licensing process in each jurisdiction as well as to job information.
- Assess how frequently IEGs conduct research prior to coming to Canada and if that research assists them in settling in Canada and obtaining meaningful engineering employment.

ARRIVAL IN CANADA

- IEGs, like all other immigrants, come in contact with a number of organizations when they arrive to Canada. Some groups play a central role in ensuring IEGs are properly supported in their employment and licensure quest but could this be improved and could more groups be involved?
- The extent to which immigrants make use of government-funded services in smaller centres, can be studied in Phase II.
- Greater coordination is required between settlement groups and regulatory bodies. Partnerships — such as the one formed between the Association of Professional Engineers and Geoscientists of the Province of Manitoba and the Citizenship Council (International Centre) — are valuable.
- Should there be a consolidation of settlement resource and licensure information available to IEGs?

SETTLEMENT SUPPORT

- A web scan of general settlement resources reveals that a significant amount of information is available to immigrants. Further research is required to determine how immigrants use this information and whether they have difficulty in accessing the information they seek.
- Settlement agencies, as newcomers' first points of contact, are often newcomers' first sources of information on the labour market. A discussion on how to leverage this in disseminating information about licensure to IEGs would be valuable.

LICENSING

- It would be useful to determine if the differences among the licensing processes of the regulatory bodies have an impact on an IEG's ability to successfully navigate that process.
- Should there be a process to facilitate the licensing of IEGs in multiple jurisdictions?

- Given the differences in nomenclature across the country, it could be helpful to examine whether or not a common language would be useful.
- In as much as the regulatory bodies have developed processes in the context of their own jurisdictions, a discussion around best practices could be helpful.
- Do IEGs obtain their licenses faster if they begin the process overseas? Do a higher percentage succeed? Could distance learning play a role?
- What role can employers play in encouraging licensure among IEGs, and indeed, facilitating that process?
- The profession must consider a single registration form for multiple jurisdictions to facilitate interprovincial/territorial mobility.
- Are there repetitive activities that can be standardized in the licensing process i.e. is there a need to continue to assess degrees from specific universities?

IEG PERSPECTIVES

- There is a need for better information prior to coming to Canada (e.g., a detailed outline of the processes required to become an engineer, the importance of the license in Canada, the job market, etc.)
- Determine methods of encouraging employers to hire IEGs before they are licensed (perhaps involve the government in this process such as establishing programs that might compensate employers for hiring international engineering graduates.)
- Shorten processing time (perhaps have paid staff on evaluation committees.)
- Create different methods of evaluating experience (e.g., only by interview or the ability to waive the one-year Canadian experience).
- Create organizations that could provide contacts and network opportunities for those in similar situations.
- Consider allowing the writing of confirmatory examinations abroad; it is understood that PEO, for example, already allows for the writing of professional practice examinations in more than 40 countries.

SETTLEMENT WORKERS' PERSPECTIVES

- Programs for IEGs should begin pre-arrival. They should take the form of information sessions, and should facilitate a matching program in Canada, where the main objective would be to get the applicant into the engineering profession, not merely into the labour market.
- Another major challenge is that mandates, which are dictated largely by those who provide their funding (Citizenship and Immigration Canada, Human Resources Development Canada, Department of Canadian Heritage), direct that their main focus be to getting a client off of social assistance and into the workforce, not into their profession. While this is understandable, getting a client working and getting a client working in their profession are two different processes. This highlights the need to address the issue of dedicated resources required as an investment so that IEGs are encouraged to make the transition into their profession, not merely into the labour market.
- If provisions could be made to enable settlement and support services to focus on getting the client placed within their profession, then the numbers entering the profession would better reflect the numbers of IEGs.

- One service provider interviewed indicated that the highly specialized technology that engineers use (e.g. AutoCad) should be offered through a program specifically linked to the profession.
- Networking for IEGs is a critical component of their settlement process, and could be set up through the employment community and the settlement and support service sector.

OTHER PROFESSIONS

- Pharmacists and nurses, both professions concerned with public safety, have high ratios of foreign-trained professionals.⁴³ While the licensing processes of other professions cannot be judged outside of the context in which those processes are situated, there may be practices and policies of interest to the engineering profession. A discussion around the following could be of interest:
 - A number of professions rely on national competency examinations to establish technical competence. (This is also the effective practice of most of the state boards in the United States that are responsible for licensing professional engineers; see Section 11.) Sub-national examinations focus on regulations specific to the jurisdiction and professional ethics.
 - Some professions have adopted a North American competency examination.
 - The evaluation of non-Canadian practical experience (or clinical experience in the medical professions) is a major challenge for all Canadian professions and for engineering professions outside Canada (see Section 11.)
 - Many foreign-trained professionals have limited ability, after immigrating, to document and prove their experience in terms of the paradigm used by a profession to specify the requisite practical experience. This problem becomes more acute when the standards for practical experience are set out with a high degree of rigour and structure.
 - In Canada, the professions differ only moderately in their English language proficiency requirement. All professions rely on standardized proficiency tests.
 - There are dramatic differences across professions in the costs associated with becoming licensed in Canada.

Other, specific observations:

- Manitoba's special course in communications for foreign trained physicians may be an example worth exploring for the engineering profession.
- Ontario's special course for foreign trained nurses offers a potentially useful example, especially in regard to its inclusion of non-technical preparation.
- For actuaries, there is a planned "affiliate" status that is expected to assist foreign trained actuaries who cannot be readily qualified in Canada to obtain relevant employment and thereby open the door to qualification in Canada.
- The clear statement of requirements for qualification as an actuary is thought to be responsible for deterring unqualified applicants and avoiding the frustration that arises from time-consuming and ultimately unsuccessful application attempts.
- There are some themes which the registrars may have been reluctant to pursue over the phone with a consultant. The Steering Committee might consider hosting a round-table with a few of the more relevant professions.

43 50 per cent of Ontario pharmacists are foreign-trained.

LABOUR FORCE INFORMATION

- Given that many organizations — settlement agencies, governments and immigrants themselves — have often asked for information on job prospects, and yet it is not readily available, it may be the type of study the Committee could consider conducting in Phase II.
- Labour market information that is regionally-specific would be of the most use.

OTHER JURISDICTIONS

- Among the engineering professions studied, the Australian profession publishes the most rigorous and structured standards for post-graduation experience. By contrast, the published standards of the U.S. state boards — where certain functions are statutorily reserved to licensed engineers — are significantly less structured and rigorous than those of Australia.

EMPLOYERS' PERSPECTIVES

- The term “international engineering graduates” covers a broad spectrum of individuals. At one end of the spectrum are engineers who were trained in an English-speaking jurisdiction, such as the US, the UK or Australia. These individuals are viewed by employers as having technical qualifications that are equivalent to those of Canadian-trained engineers. Mid-way in the spectrum are engineers who trained in non-English speaking jurisdictions and who hold post-graduate qualifications. These individuals often lack language skills and knowledge of North American business practices. Nevertheless, they are valued by employers for their technical specialization and will often be hired into engineering positions. Further along the spectrum are similar individuals who lack post-graduate training, but who had significant practical experience prior to immigrating to Canada. These individuals may be hired either into engineering positions or into technologist positions, depending on how an employer assesses an individual's suitability. At the far of the spectrum are recent graduates of universities in non-English-speaking countries whose undergraduate programs are not judged commensurate with Canadian (and *Washington Accord*) standards and who have little or no practical engineering experience. Employers will typically likely hire these individuals into technologist positions, rather than engineering positions.
- Although none of the employers interviewed made reference to the *Washington Accord*, they nevertheless appear to treat engineers trained in jurisdictions that are party to the *Washington Accord* as equivalent in technical skills to Canadian-trained engineers.
- None of the employers interviewed found international engineering graduates lacking in technical proficiency. This applied equally to engineers trained in jurisdictions that are not party to the *Washington Accord*.
- Proficiency in English (or French) is the key factor in determining an employer's assessment of an international engineering graduate's suitability for employment.
- Though secondary to language proficiency, knowledge of North American business practices is also an important consideration for employers. However, this factor is more likely to affect the level of employment into which an international engineering graduate is hired whereas language proficiency tends to determine whether an individual is hired.
- Most engineering-intensive employers have experience recruiting and managing international engineering graduates. In many of these companies, individuals who obtained their engineering

education outside Canada now occupy managerial positions. Companies that judge a foreign-trained individual suitable for engineering employment are unlikely to allow the absence of professional registration to deter them from recruiting or promoting such a person, if a license is not legally required. This is especially the case where the international engineering graduate holds post-graduate qualifications. The significant increase in the number of international engineering graduates seeking employment may be leading some companies to reconsider the importance they previously attached to professional licensure.

- To maintain the credibility and standing of professional licensure among employers in sectors where registration is not legally required, it is in the strategic interests of the regulatory bodies to have policies and programmes that demonstrate an understanding of the distinctive circumstances and career challenges of international engineering graduates. The regulatory bodies need to avoid a situation in which there is a loss of support for professional licensure among both international engineering graduates and the companies that employ them. This will be particularly important as a growing number of international engineering graduates advance into managerial positions.
- Upon review of this information, it was noted that lack of Canadian cultural and technical knowledge may hinder IEGs in obtaining work. Even a person with more than ten years of overseas experience would be unfamiliar with such things as Canadian codes, products, construction costs, specifications, tendering processes and construction law.
- The regulatory bodies should consider partnering with post-secondary institutions to offer programmes in *English (or French) as a Second Language for Professionals*. These programmes would assume a strong level of proficiency in basic English (or French) language skills. The purpose of this advanced training would be to assist international engineering graduates to polish their English (or French) language proficiency to a level that is suitable for professional employment. This training would cover the gap between proficiency scores commonly achieved by graduates of basic ESL or FSL programmes and the proficiency scores required by the regulatory bodies for professional registration.
- The regulatory bodies should consider partnering with professional development centres, where they exist, to offer programmes in *Technical English (or French) as a Second Language for Engineers*. This training would focus on the oral and written presentation of technical matters.
- The regulatory bodies should consider facilitating or offering training in essential North American business practices. Among the topics covered by this training would be:
 - tendering, bidding and administering contracts,
 - basic regulatory compliance under health and safety and environmental statutes,
 - organizational practices (especially team methods of organizing engineering work),
 - business development and client relationships.
- The regulatory bodies should consider developing a special internship program for international engineering graduates that would take account of their distinctive circumstances and accelerate their progress towards professional registration.
- Employers will be involved in the Steering Committee of Phase II.

APPENDIX A

Foreign Credential Assessment for Employment

These credential assessment services are **not** linked to obtaining an engineering license.

NATIONAL

Canadian Council of Professional Engineers

Ottawa, Ontario

www.ccpe.ca

CCPE offers the *Engineering International Education Assessment Program* (EIEAP) which assesses the educational qualifications of individuals who were educated and trained outside of Canada, by comparing their education to Canadian engineering education. If an IEG were to access CCPE's website, one of the choices available is a link to the *Engineering International Education Assessment Program*. By accessing this link, IEGs can obtain a full explanation of the process involved to have their educational credentials assessed prior to immigrating to Canada.

The EIEAP assessment provides applicants with information about how their education compares to a Canadian engineering education. This is important, as the definition of engineering varies from one country to the next. Work and training that is called Engineering with the job title Engineer in some countries may fall into a different job category in Canada. The EIEAP assessment allows people to make an *informed choice* about immigrating to Canada as *skilled workers* or in the *family class*.

The EIEAP provides:

- An assessment of the engineering education credentials of people trained outside of Canada,

- Verification of educational documents,
- A statement comparing the applicant's education to a Canadian engineering education,
- Information about the engineering profession in Canada, how to get an engineering licence, and tips on getting work in Canada, and
- Toll free access to the EIEAP "Help Desk," where applicants can request more information and referrals after their arrival in Canada.

The assessment is easy to understand and provides useful information for employers, universities and other officials. Applicants also receive practical information about working as an engineer in Canada.

The Engineering International Education Assessment Program is not part of the registration process to become a licensed professional engineer in Canada. That process usually begins after immigrants have arrived in Canada, and applied for registration and licensure to the engineering licensing body in the province or territory where they wish to work. The licensing body evaluates the academic and professional qualifications of licensure applicants to determine whether they are qualified to be licensed professional engineers in Canada, and whether examinations will be required. Information on the steps individuals must take to register with an engineering licensing body and obtain an engineering license are available on this site in Adobe Acrobat™ PDF format. Information on these areas is available in Arabic, Classical Chinese, Simplified Chinese, English, Farsi, French, Portuguese, Spanish, Russian and Ukrainian.

DETAILS ABOUT OTHER INFORMATION ON THE CCPE WEBSITE ARE
AT THE END OF THIS APPENDIX.

Canadian Information Centre for International Credentials

www.cicic.ca

The CICIC collects, organizes, distributes information, and acts as a national clearing house and referral service to support the recognition and portability of Canadian and international educational and occupational qualifications. It was established in 1990 after Canada ratified the *UNESCO Convention on the Recognition of Studies, Diplomas and Degrees concerning Higher Education in the States belonging to the Europe Region* to assist in carrying out this country's obligations under the terms of the convention. The convention promotes international mobility by advocating wider recognition of higher education and professional qualifications.

CICIC provides advice to individuals on what they need to do to have their academic or professional credentials assessed in Canada. CICIC refers individuals to the appropriate institutions and organizations for specific assistance but does not grant equivalencies or assess credentials. The CICIC also acts as the Secretariat to the Alliance, which is outlined below.

Alliance of Credential Evaluation Services in Canada

www.canalliance.org

The Alliance ensures that individuals have access to fair and credible credential assessment services. Members of the Alliance follow the *Principles for Good Practice in the Assessment of Credentials* that are consistent with international standards. The overarching principles are that: assessments should be performed without any form of racial, religious, political, or

sexual discrimination; holders of foreign qualifications should have adequate access, upon request, to an assessment of their foreign qualifications; the procedures and criteria used in the assessment of foreign credentials should be clear, rational, and reliable; procedures for the evaluation of foreign credentials should be periodically reviewed with a view to increasing clarity and eliminating, when possible, requirements leading to undue complications in the procedure; the general approach to foreign credentials and how they are compared to a particular system should take into account the diversity of educational traditions in the world; and the same basic methodology should apply whether the statement is for general employment purposes, entry into secondary and postsecondary institutions, and entry into a regulated occupation.

The following organizations belong to the Alliance:

- International Credential Evaluation Service (ICES)
- International Qualifications Assessment Service (IQAS)
- Service des équivalences (SDE), Ministère des Relations avec les citoyens et de l'Immigration du Québec
- World Education Services (WES)
- Academic Credentials Assessment Service (ACAS) Manitoba

Members of the Alliance undergo a rigorous self-evaluation process including a review of assessment procedures, experience, file management, personnel qualifications, documentation methods and reference material base. To qualify for Alliance membership, an assessment service must demonstrate that it complies with established quality standards and must agree to maintain those standards.

PROVINCIAL/TERRITORIAL

International Credential Evaluation Service (ICES)

British Columbia

www.ola.bc.ca/ices

The International Credential Evaluation Service (ICES) was established in 1995 with start-up funding from the provincial government of British Columbia, to help people gain the recognition they need to pursue their career and educational goals in Canada.

According to the ICES website, they evaluate the credentials of people who have studied in other provinces or countries, and determine comparable levels in British Columbia and Canadian terms. They describe their evaluation reports as objective, consistent, and reliable.

Licensing bodies, educational institutions, employers, government services immigration organizations and individuals who have completed their education outside of B.C. and/or Canada all benefit from ICES evaluation reports. They save organizations time and money by eliminating the need for extensive resources and research time to complete their own evaluations.

International Qualifications Assessment Service (IQAS)

Alberta and Saskatchewan

www.aecd.gov.ab.ca/iqas/

The International Qualifications Assessment Service (IQAS) was established by the Alberta government to help individuals educated outside of Canada. IQAS provides an advisory service that assesses and compares educational qualifications from other countries to the provincial educational standards of Alberta and Saskatchewan. IQAS issues certificates which indicate how an educational credential received in another country compares to an educational program in Alberta or Saskatchewan. IQAS certificates may help immigrants enter the labour market, gain membership to professional licensing bodies and admission into post-secondary institutions since they are recognized by employers, professional licensing associations and educational institutions to understand foreign educational programs. The site provides a list of more than thirty national and provincial professional bodies that use the assessments prepared by IQAS.

The site points out that many professional associations and post-secondary institutions conduct their own educational assessments and because of this, IQAS emphasizes that it is an immigrant's responsibility to ensure that the post-secondary institution or professional association they wish to enter will accept the IQAS assessment certificate. Questions concerning the specific requirements or procedures for registration or licensure, employment or admissions should be directed to the appropriate professional association/licensing board, employer or post-secondary institution.

The Manitoba Academic Credentials Assessment Service

Culture, Heritage and Citizenship

Immigration Credentials

Winnipeg, Manitoba

www.gov.mb.ca/labour/immigrate/newcomerservices/7a.html

The service provides a report on foreign educational credentials obtained by individuals from recognized educational institutions, and who are new to this province. This report will:

- assist immigrants in obtaining formal recognition of their education and training;
- increase stakeholders' understanding of the immigrants' education and training;
- assist immigrants with career planning and job search activities.

The main page explains that academic credentials reports are advisory in nature and do not replace or supersede the assessments required by professional and trade licensing bodies or associations, or for admission to educational institutions. In very clear wording, it is stated that individuals who wish to meet the requirements of a regulated profession or trade (e.g., medicine, machinist, teaching, etc.) or want to be admitted to a post-secondary institution are advised that such bodies have their own requirements for admission. The site goes on to explain the documents that clients must provide and the process for the evaluation.

Ministry of Training, Colleges and Universities
Access to Professions and Trades Unit
Ontario

www.equalopportunity.on.ca

Through this Ontario government site, immigrants are referred to World Education Services for information on how to have foreign education credentials assessed and compared to Ontario education standards.

World Education Services (WES)-Canada

www.wes.org/ca/index.html

WES is the authorized provincial evaluation service operating on behalf of the Ontario Ministry of Training, Colleges and Universities. World Education Services operates the largest foreign credential evaluation service in North America, preparing evaluations for approximately 50,000 individuals annually in addition to providing evaluation reports to hundreds of professional licensing and certification boards and government agencies each year.

Settlement in Ontario

www.settlement.org

Sponsored by Citizenship and Immigration Canada, this site is available in both official languages and is designed to provide newcomers destined for Ontario with information on settlement issues such as housing, education and health. The site offers several important links in terms of language and employment, and uses a question and answer format. Sample questions are: How can I improve my English? Where can I go to get my English assessed? How can I find information about salaries? Why should I get help to find a job?

The main challenge is finding the site. While using the key term 'immigrants' allows one to find the site, slight variations such as 'immigration' or 'immigrating' do not have the same result.

Service des équivalences

Direction des équivalences et de l'administration des ententes de sécurité sociale, Immigration Québec

Québec

www.immq.gouv.qc.ca

The evaluation report provided by this service compares the education received outside of Quebec to that which would have been received within the Quebec education system. The *Ministère des Relations avec les citoyens et de l'Immigration* advises people on the usefulness and limitations of a comparative evaluation. It provides information on applicable fees, the procedure for applying for the evaluation, which documentation and translations are required and the time delays involved.

There are no educational assessment services in Atlantic Canada or the north.

CCPE WEBSITE CONTENTS

The process and equivalency assessment

Comprehensive information is provided about the engineering profession in Canada, the steps required to become licensed, and the process for having foreign credentials assessed for Canadian equivalency. Equivalency assessment information is presented in Arabic, Classical Chinese, Simplified Chinese, English, Farsi, French, Portuguese, Spanish, Russian and Ukrainian.

Jurisdiction rules

The *Engineering in Canada* section of the website offers an overview of the profession in Canada. It explains that, by law, no one can take responsibility for engineering work without a licence and that licensing is the responsibility of the 12 provincial and territorial regulatory bodies which set standards and regulate the profession in their respective jurisdictions under the authority of their provincial or territorial legislation. One can do engineering work in Canada without a licence but all of that person's work must be reviewed and approved by a licensed engineer. This section also clarifies that while an engineering licence is valid only within the jurisdiction that issues it, a mobility agreement exists among the provinces and territories facilitating the transfer of licences.

P.Eng. (ing.) title

The site specifies that, once registered or licensed as a member of a provincial or territorial association, engineers become known as professional engineers and are authorized to use the title P.Eng. after their name (ing. in the province of Quebec). It also emphasizes that “[Those applying for licensure] can work as engineers only if a licensed professional engineer takes responsibility for the work.⁴⁴ In this way, an engineering graduate can gain experience as he or she pursues a licence.

Criteria for earning a licence

The site outlines the criteria candidates must meet to earn their licence — namely:

RESIDENCY

Candidates must be Canadian citizens or permanent residents. Citizenship or permanent resident status is required to obtain licensure although in certain provinces, one can apply for licensure before immigrating to Canada. In Quebec, citizenship or permanent residency is not a requirement for earning a licence.

In certain cases, application for a licence can be obtained prior to immigration. An IEG seeking to immigrate to Ontario, for example, can apply for a licence, have his or her academic qualifications assessed, write the qualifying exam and earn a provincial licence all prior to immigration.

POSTSECONDARY DEGREE

Candidates must possess an undergraduate (Bachelor's level) degree in engineering from an accredited Canadian university program, or possess an otherwise recognized engineering degree *and* complete an assigned technical exam program. Recognition of degree equivalency

44 CCPE website, Immigration and Assessment, Engineering in Canada, May 2003.

by a Canadian university or other organization is unrelated to recognition of the candidate's degree by the CCPE and its constituent members.

WORK EXPERIENCE

Candidates must complete three or four years of engineering work, depending on the provincial or territorial association. Experience obtained outside Canada may be acceptable if sufficient documentation is provided and the candidate demonstrates that he or she has satisfactory engineering experience. A minimum of 12 months experience must be gained in a Canadian environment, however, under the supervision of a professional engineer to ensure the candidate is familiar with Canadian codes and standards of practice.

EXAM COMPLETION

Candidates must write and pass an examination on professional practice, ethics, engineering law and liability.

CHARACTER

Candidates must be of good character and reputation.

LANGUAGE PROFICIENCY

Finally, candidates must be proficient in English — French in Quebec, English or French in New Brunswick.

APPENDIX B

Settlement Support

Part A — General Settlement Support Organizations

Part B — Support Specific to IEGs

Part C — Foundations, Policy Makers, Research

PART A – GENERAL SETTLEMENT SUPPORT

ORGANIZATIONS

These agencies are listed alphabetically by province/territory. Where available, a link to their website is provided. Although not exhaustive, this list provides an overview of services available to newcomers.

Alberta

Calgary Catholic Immigration Society
3rd Floor, 120–17 Avenue SW
Calgary, AB T2S 2T2
403-262-2006
www.cadvision.com/ccis/

Calgary Immigrant Aid Society
12th Floor, 910–7 Avenue SW
Calgary, AB T2P 3N8
403-265-1120
www.calgaryimmigrantaid.ca

Calgary Immigrant Women's Association
300, 750 11 Street SW
Calgary, AB T2P 3N7
403-263-4414
www.ciwa-online.com

Calgary Immigrant Development and
Educational Advancement Society
203–4310 17th Avenue SE
Calgary, AB T2A 0T4
403-235-3666

Calgary Mennonite Centre for Newcomers
201, 3517 17 Avenue SE
Calgary, AB T2A 0R5
403-569-0409
www.cmcn.ab.ca

The Calgary Bridge Foundation for Youth
4112–4 Street NW
Calgary, AB T2K 1A2
403-230-7745

Catholic Social Services
10709–105 Street
Edmonton, AB T5H 2X3
780-424-3545
www.catholicsocialservices.ab.ca

Changing Together
A Centre for Immigrant Women
#103, 10010–107A Avenue
Edmonton, AB T5H 4H8
780-421-0175
www.ideal.ab.ca/~changing/

Indo-Canadian Women's Association
335 Tower II, Millbourne Mall
Edmonton, AB T6K 3L2
780-490-0477

Edmonton Catholic Schools
10915–110 Street
Edmonton, AB T5H 3E3
780-426-4375
www.ecs.edmonton.ab.ca

Edmonton Chinese Community Services
Centre
9540–102 Avenue
Edmonton, AB T5H 0E3
780-429-3111
www.telusplanet.net/public/eccsc/

Edmonton Immigrant Services Association
11240–79 Street
Edmonton, AB T5B 2K1
780-474-8445
www.compusmart.ab.ca/eisa/EISAorg.html

Edmonton Mennonite Centre
for Newcomers
#101, 10010–107A Avenue
Edmonton, AB T5H 4H8
780-424-7709
www.emcn.ab.ca

Edmonton Public School Board
6703–112 Street
Edmonton, AB T6H 3J9
780-431-5479
www.epsb.edmonton.ab.ca

Millwoods Welcome Centre
for Immigrants
335 Tower II, Millbourne Mall
Edmonton, AB T6K 3L2
780-462-6924

New Home Immigration
and Settlement
572 Hermitage Road
Edmonton, AB T5A 4N2
780-456-4663
www.newhomecentre.org

YMCA of Wood Buffalo
#200, 9913 Biggs Avenue
Fort McMurray, AB T9H 1S2
780-743-2970
www.ymca.woodbuffalo.org

The Reading Network
Grande Prairie Regional College
Lower Level, 9920–100 Avenue
Grande Prairie, AB T8V 0T9
780-538-4363
www.telusplanet.net/public/reading1/

Lethbridge Family Services Immigrant
Services
508–6th Street South
Lethbridge, AB T1J 2E2
403-320-1589
Fax: 403-317-7654
www.lethbridge-family-services.com/immigrant.cfm

SAAMIS Immigration Services
177 12 Street NE
Medicine Hat, AB T1A 5T6
403-504-1188
Fax: 403-504-1211
www.memlane.com/nonprofit/bridges/saamis.htm

Catholic Social Services — Red Deer
5104–48th Avenue
Red Deer, AB T4N 3T8
403-347-8844

Catholic Social Services
202–5000 Gaetz Avenue
Red Deer, AB T4N 6C2
403-346-8818
www.intentr.com/immigrantctr/css.html

Central AB Refugee Effort (C.A.R.E.)
Committee
202–5000 Gaetz Avenue
Red Deer, AB T4N 6C2
403-346-8818
www.intentr.com/immigrantctr/care.html

British Columbia

Abbotsford Community Services
2420 Montrose Avenue
Abbotsford, BC V2S 3S9
604-859-7681
www.glide.com/abbotsford/community_services/

Mennonite Central Committee of BC
31414 Marshall Road, Box 2038
Abbotsford, BC V2T 3T8
604-850-6639
www.mccbc.com/moremccbc.htm

Burnaby Family Life Institute
32–250 Willingdon Avenue
Burnaby, BC V5C 5E9
604-659-2200

Burnaby Multicultural Society
6255 Nelson Avenue
Burnaby, BC V5H 4T5
604-431-4131

Campbell River and Area Multicultural and
Immigrant Services Association
43–1480 Dogwood Street
Campbell River, BC V9W 3A6
250-830-0171
www.crcn.net/service/justice/misa/

Chilliwack Community Services
45938 Wellington Avenue
Chilliwack, BC V2P 2C7
604-792-4267
www.fvconnect.bc.ca/Chilliwack/commdev/Chilliwack%20Community%20Services.htm

Comox Valley Family Service Association
1415 Cliffe Avenue
Courtenay, BC V9N 2K6
250-338-7575

Cowichan Valley Intercultural and
Immigrant Aid Society
3-83 Trunk Road
Duncan, BC V9L 2N7
250-748-3112
www.cowichantowork.bc.ca/cviiias/indexcviiias.htm

Kamloops Cariboo Regional Immigrant
Services Society
110–206 Seymour Street
Kamloops, BC V2C 2E5
250-372-0855

Multicultural Society of Kelowna
100–1875 Spall Road
Kelowna, BC V1Y 4R2
250-762-2155
www.okanagan.net/users/msk/

Langley Family Services Association
5339–207th Street
Langley, BC V3A 2E6
604-534-7921

Central Vancouver Island Multicultural
Society
114–285 Prideaux Street
Nanaimo, BC V9R 2N2
250-753-6911

Lower Mainland Purpose Society for Youth
and Families
40 Begbie Street
New Westminster, BC V3M 3L9
604-526-2522

North Shore Multicultural Society
102–123 East 15th Street
North Vancouver, BC V7L 2P7
604-988-2931
www.district.north-van.bc.ca/nsms/index.htm

Penticton and District Multicultural Society
508 Main Street
Penticton, BC V2A 5C7
250-492-6299
www.pdms.ca/pdms/

Immigrant and Multicultural Services Society of Prince George
1633 Victoria Street
Prince George, BC V2L 2L4
250-562-2900
www.mag-net.com/~imss/

Richmond Multicultural Concerns Society
210–7000 Minorou Boulevard
Richmond, BC V6Y 3Z5
604-279-7160

Family Services of Greater Vancouver
250–7000 Minorou Boulevard
Richmond, BC V6Y 3Z5
604-279-7100
www.fsgv.bc.ca

Richmond Connections
190–7000 Minorou Boulevard
Richmond, BC V6Y 3Z5
604-279-7020

Surrey Delta Immigrant Services Society
1107–7330 137th Street
Surrey, BC V3W 1A3
604-597-0205

Options: Services to Community
100–6846 King George Highway
Surrey, BC V3W 4Z9
604-596-4321

Progressive Intercultural Community Services Society
109–12414–82nd Street
Surrey, BC V3W 3E9
604-596-7722

Family Services of the North Shore
101–255 West 1st Street
Vancouver, BC V7M 3G8
604-988-5281
www.familyservices.bc.ca

Immigrant Services Society
530 Drake Street
Vancouver, BC V6B 2H3
604-684-7498
www.issbc.org

Collingwood Neighbourhood House
5288 Joyce Street
Vancouver, BC V5R 6C9
604-435-0323
www.light-speed.bc.ca/warlight/HOMEPAGE/cnh/home.htm

Jewish Family Service Agency
300-950 West 41st Avenue
Vancouver BC V5Z 2N7
604-257-5151
www.jfsa.ca/v3/

Kiwassa Neighbourhood House
2425 Oxford Street
Vancouver, BC V5K 1M7
604-254-5401

Little Mountain Neighbourhood House
3981 Main Street
Vancouver, BC V5V 3P3
604-879-7104

Mosaic
1522 Commercial Drive, 2nd Floor
Vancouver, BC V5L 3Y2
604-254-9626
www.mosaicbc.com

The People's Law School
150–900 Howe Street
Vancouver, BC V6Z 2M4
604-688-2565
www.publiclegaled.bc.ca/home/

Ray-Cam Cooperative Centre
920 East Hastings Street
Vancouver, BC V6A 3T1
604-257-6949
www.raycam.com/centre/

Riley Park Community Association
50 East 30th Avenue
Vancouver, BC V5V 2T9
604-257-8641

South Vancouver Neighbourhood House
6470 Victoria Drive
Vancouver, BC V5P 3X7
604-324-6212
www.anhgv.org/southvan/southvan.htm

SUCCESS
28 West Pender Street
Vancouver, BC V6B 1R6
604-684-1628
www.success.bc.ca/index.htm

Frog Hollow Neighbourhood House
2131 Renfrew Street
Vancouver, BC V5M 4M5
604-251-1225
www.anhgv.org/froghollow/froghollow.htm

Hispanic Community Centre
Society of BC
4824 Commercial Street
Vancouver, BC V5N 4H1
604-872-4431
www.vcn.bc.ca/hispanic/en/english.htm

Pacific Immigrant Resources Society
385 South Boundary Road
Vancouver, BC V5K 4S1
604-298-4560
www.amssa.org/pirs/index.htm

Vancouver Association for the Survivors of
Torture (VAST)
3–3664 East Hastings Street
Vancouver, BC V5K 2A9
604-299-3539
www.vcn.bc.ca/spcw/vast.htm

West End Community Centre Association
870 Denman Street
Vancouver, BC V6G 2L8
604-257-8333

Vernon and District Immigrant Services
100–3003 30th Street
Vernon, BC V1T 9J5
250-542-4177

Victoria Immigrant and Refugee Centre
305–535 Yates Street
Victoria, BC V8W 2Z6
250-361-9433
www.vircs.bc.ca

Intercultural Association of Victoria
930 Balmoral Road
Victoria, BC V8T 1A8
250-388-4728
www.icavictoria.org

Manitoba

International Centre of Winnipeg
406 Edmonton Street, 2nd Floor
Winnipeg, MB R3B 2M2
204-943-9158
www.icwpg.mb.ca

Jewish Child and Family Services
Suite C200–123 Doncaster Street
Winnipeg, MB R3N 2B2
204-477-7430
www.jewishwinnipeg.org/human.html

Lao Association of Manitoba
7–983 Arlington Street
Winnipeg, MB R3E 2E6
204-774-1115

Indochina Chinese Association of Manitoba

648 McGee Street
 Winnipeg, MB R3E 1W8
 204-772-3107

Immigrant Women Association of Manitoba

200–323 Portage Avenue
 Winnipeg, MB R3B 2C1
 204-989-5800

Philippine Association of Manitoba

88 Juno Street
 Winnipeg, MB
 204-772-7210

Employment Projects for Women

990–167 Lombard Avenue
 Winnipeg, MB R3B 0V3
 204-949-5300
www.epwinc.mb.ca

Success Skills Centre

616–1661 Portage Avenue
 Winnipeg, MB R3J 3T7
 204-786-3200

Ukrainian Canadian Congress

456 Main Street
 Winnipeg, MB R3B 1B6
 204-942-4627
www.ucc.ca

Black Youth Helpline

P.O. Box 11
 1631 St-Mary's Road
 Winnipeg, MB R2M 4A5
 204-339-2769

Citizenship Council of Manitoba

406 Edmonton Street, 2nd Floor
 Winnipeg, MB R3B 2M2
 204-943-9158

Manitoba Interfaith

406 Edmonton Street, 2nd Floor
 Winnipeg, MB R3B 2M2
 204-943-9158
www.miic.ca

New Brunswick

Multicultural Association of Fredericton
 123 York Street, Suite 201
 Fredericton, NB E3B 3N6
 506-457-4038

Multicultural Association of Greater Moncton Area

1299A Mountain Road, Suite 2
 Moncton, NB E1C 2T9
 506-858-9659
www.monctonlife.com/organizations/magma

Saint John YM/YWCA

19–25 Hazen Avenue
 Saint John, NB E2L 3G6
 506-646-238
www.saintjohnny.com

Newfoundland and Labrador

Association for New Canadians
 P.O. Box 2031, Station C
 144 Military Road
 St. John's, NL A1C 5R6
 709-722-9680
www.anc-nf.cc

Nova Scotia

YMCA Newcomer's Centre
 3663 Dutch Village Road
 Halifax, NS B3K 3B7
 902-457-9622
www.cipyouth.com

Metropolitan Immigrant Settlement Association

2131 Gottingen Street, Suite 200
 Halifax, NS B3K 5Z7
 902-423-3607
www.misa.ns.ca

Ontario

Social Development Council

Ajax, Pickering

134 Commercial Avenue

Ajax, ON L1S 2H5

905-686-2661

home.interhop.net/~socialdev/

Barrie YMCA Immigrant Services

22 Grove Street West

Barrie, ON L4N 1M7

705-726-6421 ext. 264

www.bconnex.net/~ymca/ImmigServ.html

Quinte United Immigrant Services

32 Bridge Street East

Belleville, ON K8N 5N9

613-968-7723

www.reach.net/~quis

Newcomer Information Centre, Centre for

Language Training and Assessment

Brampton Civic Centre

150 Central Park Drive, Suite 200

Brampton, ON L6T 1B4

905-270-6000

[www.tcet.com/thesource/Winter/w02-](http://www.tcet.com/thesource/Winter/w02-CLTA.pdf)

[CLTA.pdf](http://www.tcet.com/thesource/Winter/w02-CLTA.pdf)

Brampton Neighbourhood

Resource Centre

50 Kennedy Road South

Suite 24

Brampton, ON L6W 3R7

905-452-1262

Catholic Cross-Cultural Services

37 George Street North, Suite 403

Brampton, ON L6X 1R5

905-457-7740

Immigrant Settlement and Counseling

Services of Brantford

320 North Park Street, Unit 2

Brantford, ON N3R 4L4

519-753-9830

YMCA of Cambridge

250 Hespeler Road

Cambridge, ON N1R 3H3

519-621-3250

www.cambridgeymca.org

Arab Community Centre

5468 Dundas Street West, Suite 324

Etobicoke, ON M9B 6E3

416-231-7746

Dejinta Beesha

8 Taber Road

Etobicoke, ON M9W 3A4

416-743-1286

Rexdale Women's Centre

8 Taber Road, 2nd Floor

Etobicoke, ON M9W 3A4

416-745-0062

www.rexdale.on.ca/rwc/

Polycultural Immigrant and Community
Services

3363 Bloor Street West

Etobicoke, ON M8X 1G2

416-233-0055

Guelph and District Multicultural Centre

214 Speedvale Avenue West, Unit 7

Guelph, ON N1H 1C4

519-836-2222

www.gdmc.org

Settlement and Integration Services

Organization of Hamilton

360 James Street North

Hamilton, ON L8L 1H5

905-521-9917

www.siso-ham.org

Kingston and District Immigrant Services

322 Brock Street

Kingston, ON K7L 1S9

613-548-3302

www.ikweb.com/kdis/home

Mennonite Central Committee of Ontario 50 Kent Avenue Kitchener, ON N2G 3R1 519-745-8458 Kitchener-Waterloo YMCA 301-276 King Street West Kitchener, ON N2G 1B6 519-579-9622 www.ymcakw.org	Jewish Immigrant Aid Services of Canada 4600 Bathurst Street, Suite 325 North York, ON M2R 3V3 416-630-6481 www.jias.org Northwood Neighbourhood Services (C.S.) 2528A Jane Street Wycliffe Jane Plaza North York, ON 416-748-0788
London Cross-Cultural Learner Centre 717 Dundas Street East London, ON N5W 2Z5 519-432-1133 www.lcclc.org/settlementservices.html	Halton Multicultural Association 635 4th Line, Unit 48 Oakville, ON L6L 5W4 905-842-2486
Catholic Cross-Cultural Services 90 Dundas Street West, Site 204 Mississauga, ON L5B 2T5 905-273-4140	Catholic Immigration Centre 219 Argyle Avenue Ottawa, ON K2P 2H4 613-232-9634 www.cic.ca
Dixie-Bloor Neighbourhood Resource Centre 3439 Fieldgate Drive Mississauga, ON L4X 2J4 905-629-1873 www.dixie-bloor.com	Jewish Family Services of Ottawa-Carleton 1774 Kerr Avenue, Suite 230 Ottawa, ON K2A 1R9 613-722-2225
India Rainbow Community Services of Peel 3038 Hurontario Street, Suite 206 Mississauga, ON L5B 3B9 905-275-2369 www.creditvalley.com/indiarainbow	Lebanese and Arab Social Services Agency of Ottawa-Carleton 151 Slater Street, Suite 707 Ottawa, ON K1P 5H3 613-236-0003
Malton Neighbourhood Services 7200 Goreway Drive Mississauga, ON L4T 2T7 905-677-6270 905-672-3660	Ottawa Carleton Immigrant Services Organization 959 Wellington Street Ottawa, ON K1Y 4W1 613-725-0202 www.ociso.org
Inter-Cultural Neighbourhood Social Services 3050 Confederation Parkway Mississauga, ON L5B 3Z6 905-273-4884 www.creditvalley.com/community/ synergos/icnss.htm	Ottawa Chinese Community Service Centre 391 Bank Street, 2nd Floor Ottawa, ON K2P 1Y3 613-235-4875 infoweb.magi.com/~ocsc

New Canadians Centre Peterborough
205 Sherbrooke Street, Unit D
Peterborough, ON K9J 2N2
705-743-0882

Catholic Community Services of
York Region
21 Dunlop Street
Richmond Hill, ON L4C 2M6
905-770-7040

Folk Arts Council of St. Catharines
85 Church Street
St. Catharines, ON L2R 3C7
905-685-6589

Tropicana Community Services
Organization
670 Progress Avenue, Unit 14
Scarborough, ON M1H 3A4
416-439-9009
www.ayce.on.ca/toppage1.htm

South Asian Family Support Services
(SAFS)
1200 Markham Road, Suite 214
Scarborough, ON M1H 3C3
416-431-4847

Catholic Cross-Cultural Services
780 Birchmount Road, Unit 3
Scarborough, ON M1K 5H4
416-757-7010

Centre for Information and Community
Services of Ontario (CICS)
3852 Finch Avenue East, Suite 310
Scarborough, ON M1T 3T9
416-292-7510

Sudbury Multicultural Folk Arts
Association
196 Van Horne Street
Sudbury, ON P3E 1E5
705-674-0795
www.cyberbeach.net/~smfaa/index.htm

Thunder Bay Multicultural Association
17 North Court Street
Thunder Bay, ON P7A 4T4
807-345-0551

Afghan Women's Counseling and
Integration
Community Support Organization
2333 Dundas Street West, Suite 205A
Toronto, ON M6R 3A6
416-588-3585

Bloor Information and Life Skills Centre
672 Dupont Street, Suite 314
Toronto, ON M6G 1Z6
416-531-4613
www.bils.cjb.net

Canadian Centre for Victims of Torture
192-194 Jarvis Street, 2nd Floor
Toronto, ON M5B 2B7
416-363-1066
www.icomm.ca/ccvt

Canadian Ukrainian Immigrant Aid Services
2150 Bloor Street West, Suite 96
Toronto, ON M6S 1M8
416-767-0036
www.cuias.org

Catholic Cross-Cultural Services
10 St. Mary Street, Suite 410
Toronto, ON M4Y 1P9
416-324-8225

Harriet Tubman Community
Organization Inc.
2975 Don Mills Road
Toronto, ON M2J 3B7
416-496-2044

Centre for Spanish-Speaking Peoples
1004 Bathurst Street
Toronto, ON M5R 3G7
416-533-8545
www.spanishservices.org

COFTM Centre Francophone
20 Lower Spadina Avenue
Toronto, ON M5V 2Z1
416-203-1220

COSTI-IIAS Immigrant Services
1710 Dufferin Street
Toronto, ON M6E 3P2
416-658-1600
www.costi.org

CultureLink
160 Springhurst Avenue, Suite 300
Toronto, ON M6K 1C2
416-588-6288

Ethiopian Association in Toronto, Inc.
2057 Danforth Avenue, 3rd Floor
Toronto, ON M4C 1J8
416-694-1522

Jamaican Canadian Association
995 Arrow Road
Toronto, ON M9M 2Z5
416-746-5772
www.jcassoc.com

Kababayan Community Service Centre
1313 Queen Street West, Suite 133
Toronto, ON M6K 1L8
416-532-3888

Mennonite New Life Centre
1774 Queen Street East
Toronto, ON M4L 1G7
416-699-4527
www.torontoareamennonites.ca/index.html

Newcomer Information Centre
YMCA of Greater Toronto
42 Charles Street East, 3rd Floor
Toronto, ON M4Y 1T4
416-928-3362
www.ymcatoronto.org/service

MIDAYNTA
1992 Yonge Street, Suite 203
Toronto, ON M4S 1Z8
416-544-1992
416-440-0520
www.somali-midaynta.org

Tropicana Community Services
Organization
670 Progress Avenue, Unit 14
Scarborough, ON M1H 3A4
(416) 439-9009
www.ayce.on.ca/toppage1.htm

Riverdale Immigrant Women's Centre
1326 Gerrard Street East, Suite 100
Toronto, ON M4L 1Z1
416-465-6021
www.a4s.org/RIWC

Scadding Court Community Centre
707 Dundas Street West
Toronto, ON M5T 2W6
416-392-0335

South Asian Women's Centre
1332 Bloor Street West
Toronto, ON M6H 1P2
416-537-2276

Tamil Eelam Society of Canada
861 Broadview Avenue
Toronto, ON M4K 2P9
416-463-7647
www.tesoc.com

Thornccliffe Park
Neighbourhood Services
18 Thornccliffe Park Drive
Toronto, ON M4H 1N7
416-421-3054

Toronto Chinese Community
Services Association
310 Spadina Avenue, Suite 301
Toronto, ON M5T 2E8
416-977-4026
www.tccsa.on.ca

Toronto Organization for Domestic
Workers' Rights (INTERCEDE)
234 Eglinton Avenue East, Suite 205
Toronto, ON M4P 1K5
416-483-4554

Vietnamese Association of Toronto
1364 Dundas Street West
Toronto, ON M6J 1Y2
416-536-3611

Woodgreen Community Centre
of Toronto
835 Queen Street East
Toronto, ON M4M 1H9
416-469-5211
www.woodgreen.org

Working Women Community Centre
533A Gladstone Avenue
Toronto, ON M6H 3J1
416-532-2824

Lakeshore Area Multi-Service
Project Inc.
185 Fifth Street
Toronto, ON M8V 2Z5
416-252-6471

YMCA of Metro Toronto
(Korean Community Services)
721 Bloor Street West, Suite 303
Toronto, ON M6G 1L5
416-538-9412

Youth Assisting Youth
1992 Yonge Street, Suite 300
Toronto, ON M4S 1Z7
416-932-1919
www.yay.org

Afghan Association of Ontario
29 Pemican Court, #6
Weston, ON M9M 2Z3
416-744-9289

New Canadians' Centre
Windsor Essex County Family YMCA
511 Pelisser Street
Windsor, ON N9A 4L2
519-256-7330

[www.windsor.essex.ymca.ca/new_](http://www.windsor.essex.ymca.ca/new_canadians.html)
[canadians.html](http://www.windsor.essex.ymca.ca/new_)

Multicultural Council of Windsor
and Essex County
245 Janette Avenue
Windsor, ON N9A 4Z2
519-255-1127
www.themcc.com

The Job Search Workshops in Ontario
1-800-813-2614

Prince Edward Island

PEI Association for Newcomers to Canada
179 Queen Street
Charlottetown, PEI C1A 8C4
902-628-6009

Mailing address: P.O. Box 2846,
Charlottetown, PEI C1A 8C4
www.isn.net/newcomers

Quebec

To reach immigrant serving organizations
in the province of Quebec, contact the
Ministère des Relations avec les citoyens
et de l'Immigration (MRCI). MRCI is
organized by region:

Carrefours d'intégration Island of Montréal
North Island
255, boulevard Crémazie Est
8^e et 9^e étages
Montréal (Québec) H2M 1L5
(514) 864-9191

West Island
181, boulevard Hymus
2^e et 3^e étages
Point-Claire (Québec) H9R 5P4
(514) 864-9191

East Island
8000, boulevard Langelier
6^e et 7^e étages
Saint-Léonard (Québec) H1P 3K2
(514) 864-9191

South Island
800, boulevard de Maisonneuve Est
(Place Dupuis), rez-de-chaussée
Montréal (Québec) H2L 4L8
(514) 864-9191

Direction régionale de l'Outaouais,
de l'Abitibi-Témiscamingue et
du Nord-du-Québec
4, rue Taschereau, suite 430
Hull (Québec) J8Y 2V5
819-772-3021 or 1-888-295-9095

Direction régionale de Laval, des
Laurentides, et de Lanaudière
800, boulevard Chomedey
Tour C, bureau 200
Laval (Québec) H7V 3Y4
450-681-2593 or 1-800-375-7426

Direction régionale de la Capitale-
Nationale et l'Est du Québec
930, chemin Ste-Foy
Québec (Québec) G1S 2L4
418-643-1435 or 1-888-643-1435

Direction régionale de l'Estrie,
de la Mauricie et du Centre-du-Québec
740, rue Galt Ouest, bureau 400
Sherbrooke (Québec) J1H 1Z3
819-820-3606 or 1-888-879-4288

Direction régionale de la Montérégie
3^e étage
2, blvd Désaulniers
St-Lambert (Québec) J4P 1L2
450-466-4461 or 1-888-287-5819

Bureau de Trois-Rivières
100, rue Laviolette, R.C. 26
Trois-Rivières (Québec) G9A 5S9
819-371-6011 or 1-888-879-4294

Bureau de Jonquière
3950 boulevard Harvey
Jonquière (Québec) G7X 8L6
418-695-8144

Web site for Carrefours d'intégration du
Québec:
www.immq.gouv.qc.ca/anglais/regional_offices_en.html

Saskatchewan

Moose Jaw Multicultural Council
60 Athabasca Street East
Moose Jaw, SK S6H 0L2
306-693-4677
www3.sk.sympatico.ca/mjmul/

Prince Albert Multicultural Council
17 11th Street West
Prince Albert, SK S6V 3A8
306-922-0405
www.sias.sk.ca/studentgallery/NMGallery/pamulti/

Regina Open Door Society
1855 Smith Street
Regina, SK S4P 2N5
306-352-3500
www.accesscomm.ca/nonprofits/reg.open.dr/index.html

Saskatoon Open Door Society
311 4th Avenue North
Saskatoon, SK S7K 2L8
306-653-4464
www.sods.sk.ca

PART B – SUPPORT SPECIFIC TO IEGS

A review of each province's support programs for IEGs was conducted by first linking with the regulatory body's website, then by searching for engineering-specific programming generally on the Internet.

A settlement and support services questionnaire was developed (see below) and administered to a number of community organizations during an in-person interview (list of organizations is also noted below.) The professional association in the province would recommend one or two settlement and support organizations; these groups were visited by the initial project manager and received the questionnaire. The aim of the exercise was to gain a more complete picture of existing services for and challenges faced by, IEGs.

Questionnaire – Settlement Agencies

Please take a few moments to complete the questions below. Your expertise in dealing with clients is very important to our research. We therefore take this opportunity to thank you in advance for taking the time to provide us with your insight.

1. Please provide a brief overview of your agencies' services, and your role within the organization.
2. Please describe the nature of your contact with internationally-trained engineering practitioners (ITEP).
3. Please provide any statistical information you have regarding ITEPs that enquire about or utilize the services within your organization.
4. What would you highlight as the most pressing issues facing the newcomer who makes contact with your organization?
5. In relation to employment, what would you say are the most pressing issues facing the ITEP who makes contact with your organization?
6. Can you describe the services you offer the ITEP specifically?
7. What if any are the gaps in services offered the ITEP?
8. What other organizations, government departments, provincial bodies do you have contact with when assisting the ITEP?
9. What is the nature of any follow up your organization does with ITEPs?
10. Is there anything else with respect to the ITEP and their experience that you think we should know?
11. Do you have any best practices in assisting ITEPs that you would like to bring to our attention?
12. Please give a brief description of your knowledge of the licensing process for ITEPs. Please also note any challenges ITEPs face in getting licensed, and employed.

Organizations interviewed

ALBERTA

Edmonton Mennonite Centre for Newcomers

BRITISH COLUMBIA

MOSAIC

SUCCESS

MANITOBA
International Centre

NEW BRUNSWICK
Neil and Gunter
Multicultural Association of Fredericton

NOVA SCOTIA
Metropolitan Immigrant Settlement Association

RESULTS

British Columbia

MOSAIC: Increasing Access to Regulated Professions: Information Sessions for Engineers

1522 Commercial Dr., 2nd Floor
Vancouver, BC V5L 3Y2
Tel: 604-254-0244
Fax: 604-254-3932

Website: www.mosaicbc.com and the site for the B.C. Government International Qualifications program www.mmcaaws.gov.bc.ca/amip/iqp

- Offers a number of resources for immigrants
- Includes specific information sessions to assist IEG with support, information and networking opportunities
- Participants are introduced to the particulars of engineering in B.C.

MOSAIC Credential Brokerage Program

1522 Commercial Dr., 2nd Floor
Vancouver, BC V5L 3Y2
Tel: 604-254-0244
Fax: 604-254-3932

E-mail: mosaic@mosaicbc.com

Website: www.mosaicbc.com/programs_brokerage.html

- For professionally-trained immigrants
- Applicants who qualify will have their credential assessments brokered by this program and paid for by a sponsor linked to the program

The Looking Ahead Initiative

c/o Surrey Delta Immigrant Services Society
1107-7330 137th Street
Surrey, BC V3W 1A3
Tel: 604-597-3448 ext. 606
Fax: 604-597-4299

E-mail: BCITPNET@sdiss.org

Website: www.lookingahead.bc.ca

- Offered via the Internet
- Provides resources and information for immigrants, many of which are specifically for IEGs
- Aim is to facilitate the “implementation of practical measures for assisting immigrants to participate fully in the labour market”.⁴⁵

Career Axis (CareerAxis@iss) – Immigrant Services Society of British Columbia:

Suite 501, 333 Terminal Avenue

Vancouver, BC V6A 2L7

Tel: 604-684-2123

Fax: 604-684-2797

E-mail: careeraxis@issbc.org

Website: www.careeraxis.ca

- A client-centred employment access program for immigrants looking for work or exploring career options
- Clients receive one-on-one or group counselling services, ranging from a day to six weeks depending on their individual employment needs and circumstances.
- Components of this program include: one-on-one and group employment counselling; help in assessing transferable skills, setting goals and choosing careers; information about the local labour market; assistance in writing resumes and cover letters, interview skills, and job search techniques; information on cross-cultural communication; information on the Canadian workplace and employer expectations; information related to the evaluation of foreign credentials; information on job maintenance skills; small-group coaching on Internet job search and producing resumes; access to computers (including Internet and e-mail), telephones, fax and photocopy services; job leads and postings; print and video resources; marketing assistance from an experienced job developer and follow-up support.

Ministry of Community, Aboriginal & Women’s Services: Internationally Trained

Engineering Pilot Project

1124 House Street, 2nd Floor

Vancouver, BC V6Z 2K8

Tel: 604-775-0665

Fax: 604-775-0670

E-mail: cmerc@gems9.gov.bc.ca

Website: www.mcaws.gov.bc.ca/amip/prgs/intqual_projects.htm

Please note that the mailing address will be valid till the end of July 2003.

- This Pilot Project includes: the Professional Work Experience and Training Model which assists a sample group of unemployed and underemployed IEGs in acquiring the work experience and training necessary for professional engineering associations in improving their procedures and qualifications policies for internationally trained engineers; and the International Qualifications Information Services which provides and improves information related to professional qualifications, training and employment issues for immigrant engineers, employers and service providers.
- Pilot is managed by the the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC), under contact to the BC Ministry of Community,

45 www.lookingahead.bc.ca

Aboriginal and Women's Services. Internationally trained engineers, community service group, government departments/ministries, CCPE and other stakeholders are also involved in the initiative.

Engineers and Technologists Matching Program – The Society of Punjabi Engineers and Technologists of British Columbia

c/o 16638 — 78A Avenue

Surrey, BC V3S 8S2

Tel: NA

Fax: NA

E-mail: ted.singh@brooks.com

Website: www.speatbc.org

- SPEATBC brings together Engineers and Technologists from different disciplines from both Canada and the Indian subcontinent.
- Aims to promote the engineering profession in the Punjabi community and to foster a spirit of fellowship amongst its members.
- Services for new immigrants include the social and professional aspects of settlement and integration.
- Offers formalized career information and guidance/support to facilitate transition into the Canadian engineering profession.

S.U.C.C.E.S.S. (United Chinese Community Enrichment Services Society)

28 W. Pender Street

Vancouver, BC V6B 1R6

Tel: 604-684-1628

Fax: 604-408-7236

E-mail: info@success.bc.ca

Website: www.success.bc.ca

- A non-partisan citizen's organization for the promotion of the well-being of Canadians and new immigrants and their participation in a just, equitable, and culturally diverse society through the provision of services, community development and advocacy.
- Services include settlement and integration programs for new comers and employment and business training and development, such as job matching and job finding clubs, profession-specific assessment and placement services.

Engineers Increasing ACCESS to Regulated Professions Together – B.C. Internationally Trained Professionals Network

BCITPNet Project

c/o Surrey Delta Immigrant Services Society

#1107, 7330–137th Street

Surrey, BC V3W 1A3

Tel: 604-597-3448

Fax: 604-590-2743

E-mail: BCITPNet@sdiss.org

Website: www.sdiss.org

Please note that the Website is being redesigned.

- A joint program of Immigrant Services Society of B.C., MOSAIC and Surrey Delta Immigrant Services Society, under a two-year joint initiative funded by the Department of Canadian Heritage through the federal Voluntary Sector Initiative.
- Aim is to encourage participation of internationally trained professions in the workforce and to set up networks for newcomers to assist in them in increasing access to their professions in Canada.
- Has established contact with over 100 IEGs; started a database of IEGs; maintained contact to request their participation in networks, association, and/or study groups of internationally trained professionals.

Alberta

Engineering and Technology Upgrading Program: Career pathways for new Canadian professionals – Calgary Catholic Immigration Society

3rd Floor, 120–17 Avenue SW

Calgary, AB T2S 2T2

Tel: 403-262-2006

Fax: 403-262-2033

E-mail: contact@ccis-calgary.ab.ca

Website: www.ccis-calgary.ab.ca/engineering_program.html

- Designed to give new Canadian professionals the opportunity to upgrade and integrate their written and verbal communication skills as they relate to the execution of future industry endeavours.
- Designed to: improve computer skills, basic to high-end technical, that will enable the participant to supply a potential employer with the skills of design and applications; supply three levels of training on AutoCAD, designed to cover basic AutoCAD features and commands, including 3D and multi view drawing.
- Includes four months of skills training and three months of employment.
- Topics include: technical communications; job search techniques; computer training; AutoCAD training offered through Southern Alberta Training Institute; English verbal communication; project management; industry guest speakers; work experience.
- Endorsed by the Association of Professional Engineers, Geologists, and Geophysicists of Alberta (APEGGA).
- Connects local engineering firms with engineers trained abroad.
- After a meticulous screening and evaluating process, 15 foreign-trained professionals are chosen to participate in the program.

Work Experience For Immigrants at Bow Valley College, Calgary

615 400 MacLeod Trail

Calgary, AB T2G 4S6

Tel: 403-297-4901

Fax: 403-297-3984

E-mail: NA

Website: www.bowvalleycollege.ca

- Full-time ESL program to assist skilled immigrants in accessing meaningful employment utilizing the qualifications and experience gained in their native countries.
- 16-week program provides: 10 weeks of full-time, intensive, employment-related ESL training; six weeks of work experience in a position where the participant can use his/her previous experience and education; full job-finding support and resources, including resumé production, telephone and fax service, Internet/e-mail access; extensive client support for six months after completion of this program.

The City of Calgary – Diversity Calgary Initiative

P.O. Box 2100, Stn. M.

Calgary, AB T2P 2M5

Tel: 403-268-CITY

Fax: 403-268-3580

E-mail: diversity.calgary@gov.calgary.ab.ca

Website: www.calgary.ca

- Established by a number of Calgary immigrant and ethnic groups, business groups, community organizations and politicians.
- Aimed at establishing systems and means to facilitate the integration of Calgary immigrants into society and the workplace.
- The Association of Professional Engineers of Alberta gives presentations on engineering-related topics to a number of community-based immigrant organizations.

The Edmonton Mennonite Centre For Newcomers: Engineering Technologists Integration Program

#101, 10010–107A Avenue

Edmonton, AB T5H 4H8

Tel: 780-424-7709

Fax: 780-424-7736

E-mail: etip@emcn.ab.ca

Website: www.emcn.ab.ca/Engineer.htm

- Assists IEGs in re-establishing themselves in their chosen field.
- Partners include Edmonton Mennonite Centre for Newcomers, with Alberta Society of Engineering Technologists (ASET) and the Northern Alberta Institute of Technology (NAIT).
- A 10-month comprehensive and practical training program.
- Graduates can become associate members of ASET as Certified Engineering Technologists.
- Covers a range of topics, including: developing English skills especially in areas of technical speaking and writing; increasing technical knowledge of Canadian standards; improving computer skills such as AutoCAD; learning about workplace culture in Canada; familiarization with labour market trends; increasing participants job search and interview skills; offering opportunities for networking; and qualifying participants for associate membership of ASET, leading them to a full certification as a C.E.T. after one year of Canadian work experience.

- There are limitations as to who can be accepted into this program and participants have to meet the following standards: resident of Alberta for three months or more; be unemployed or underemployed; and undertake a Prior Learning Assessment and Recognition test.
- There is a fee for this service but the Centre says it offers financial assistance to those who qualify.

Saskatchewan

Employment Skills Training Program – Regina Open Door Society (RODS)

1855 Smith Street

Regina, SK S4P 2N5

Tel: 306-352-3500

Fax: 306-757-8166

E-mail: rods.admin@accesscomm.ca

Website: www.nonprofits.accesscomm.ca/reg.open.dr/

- A non-profit organization that provides a broad range of services to refugees and immigrants.
- Objectives are to: assist immigrants and promote their adjustment to and participation in the Saskatchewan community; promote and extend community services to immigrants to foster greater awareness and understanding between the immigrant and the community; Seek to establish facilities for intercultural, educational and social activities.
- Services provided included workshops, job search assistance and skills based job placement.

Manitoba

Professional and Skilled Immigrant Services – Success Skills Centre

616–1661 Portage Avenue

Winnipeg, MB R3J 3T7

Tel: 204-975-5111

Fax: 204-975-5108

E-mail: ssc@successskills.mb.ca

Website: www.successskills.mb.ca

- Provides services and programs that assist immigrant professionals obtain employment appropriate to their credentials.
- Receives funding from a variety of government departments.
- Does not identify an engineer-specific program, but works exclusively with professionals in licensed and or regulated professions.
- Works exclusively with professional and highly skilled immigrants who have had their education and professional experience outside of Canada.
- Acts as a broker and advocates to access programs and employment training on behalf of its clients, linking employees with valuable human resources.
- Encourages its clients to use their hands-on Canadian training and convert these to the Canadian labour market.

- Offers assistance with self-marketing, resumés, cover letters, employment search and interview skills, and also workspace and office equipment for job search purposes.
- Encourages employers to play a valuable role by taking appropriately qualified program interns into their workplace for internship/work experience purposes.
- Provides independent assessment and internship services, supplying employment and counselling assistance to immigrant professionals, and advice and guidance to employers and other agencies working with immigrants.
- Delivers AutoCAD training to immigrant engineers and engineering technicians and technologists.
- Markets immigrant professionals directly to employers and helps secure job placements.

On-Site Manitoba – Job Seekers and Placement Program

153 Lombard Avenue, Suite 201

Winnipeg, MB R3B 0T4

Tel: 204-943-6900

Fax: 204-943-0710

E-mail: onsite.winnipeg@epi.ca

Website: www.epi.ca/manitoba/

- Helps Canadian job seekers by placing them in professional positions in a range of disciplines.
- Candidates must be receiving Canadian Employment Insurance Benefits (EI) or have collected in the last three years.
- Employers are usually seeking university or college graduates in science, engineering, technology, environment, commerce, or management. Successful candidates will be placed with Manitoba employers for work-terms of 26 weeks in the areas of environmental management, ISO 9000 and quality management, occupational health and safety, export development, energy management or information technology.
- Once placed with an employer, participants receive a combination of EI benefits and a living allowance from the province of Manitoba to total \$350 per week.

Ontario

Educational Programs Innovation Centre (EPIC)

5759 Coopers Avenue

Coopers Business Centre

Mississauga, ON L4Z 1R9

Tel: 1-888-374-2338

Fax: 1-800-866-6343

E-mail: epic@epic-edu.com

Website: www.epic-edu.com

- A technical training provider of engineering and technology programs in the private sector throughout North America.
- Provides structured, practical educational solutions in traditional and information-age technology, through a variety of models.

- Main objective is to offer programs of the highest quality, which directly address current needs and demands of both individuals and industry.
- Courses are designed to meet the needs and requests of clients who want to stay competitive in the global market of the new millennium or who are helping the public sector to do more with less.
- Participating partner with the Engineering Institute of Canada (EIC) and certified by HRDC as a designated educational institute for purposes of the Income Tax Act.
- Fees paid by individuals are income tax deductible in Canada.
- Provides free, on-site counselling on second and fourth Friday of every month, from 1:30 p.m. to 4:00 p.m., by appointment only.

PATHWAYS Program – Ontario Society of Professional Engineers (OSPE)

4950 Yonge Street, Suite 502

Toronto, ON M2N 6K1

Tel: 416-223-9961

Fax: 416-223-9963

E-mail: pathways@ospe.on.ca

Website: www.pathways.ospe.on.ca

- Created to assist internationally-educated engineers find engineering employment in Ontario and work towards obtaining their P. Eng. licence.
- Provides key skills in English communications and in understanding the Canadian workplace to prepare IEGs for licensure as a P.Eng. in Ontario.
- Structured to help address both the newcomer's and the professions' needs.
- Program consists of six weeks of classroom instruction and training in English communication in an engineering workplace, understanding the Canadian workplace, work readiness and job search preparation. (A complete program overview is available at www.pathways.ospe.ca.)
- Aim is to provide skills that prepare the applicant to apply for a technical position (obtaining such a position for the 52 weeks of relevant technical/engineering work experience helps the IEG satisfy the requirement for the P.Eng. licence.
 - There are specific requirements for program entry, mostly in regards to language proficiency.
 - There is a fee for this service, and loans are available for those who qualify.

Possibilities Project

425 Adelaide Street West, 2nd Floor

Toronto, ON M5V 3C1

Tel: 416-392-4558

Fax: 416-392-4404

E-mail: poss@web.ca

Website: www.possibilitiesproject.com

- An e-zine for employment, education and training.
- Official Toronto WorkinfoNet site for Ontario.

The Centre for Foreign Trained Professionals and Tradespeople

Toronto, ON M6B 4H9

Tel: 416-789-3420, ext. 244

Fax: 416-789-5937

E-mail: fortrain@costi.org

Website: www.cftpt.org

- This service is free.
- Assists internationally trained professionals and trades people in finding work related to their specific skills or professional background.

COSTI

100 Lippincott Street

Toronto, ON M5S 2P1

Tel: 416-922-6688

Fax: 416-922-6668

E-mail: reception@costi.org

Website: www.costi.org

- Provides educational, social and employment services to help all immigrants in the Greater Toronto Area attain self-sufficiency in Canadian society.
- Services include assessment, individual counselling, career planning, job readiness counselling, group sessions, pre-employment preparation workshops, job maintenance workshops, life-skills training, and development of individual training.
- Matches candidates with suitable employers, places participants in jobs in their profession, and provides information and referrals to appropriate training and educational programs and follow-up services.

The New Canadian Program

12 Dupont Street West

Waterloo, ON N2L 2X6

Tel: 519-883-0216

Fax: 519-883-0431

E-mail: admin@newcanadians.org

Website: www.newcanadians.org

- Offers assistance to foreign-trained professionals and trades people who are eager to enter the Canadian job market.
- Has successfully supported over 750 foreign-trained professionals.
- Over 80 percent of participants have secured employment related to their professions after their involvement in the program.
- Launch in January 1992 by the Waterloo Region District School Board and is funded by HRDC.
- Specifically designed for international professionals and trades people seeking employment in their profession or trade over 25 years of age, in Canada less than five years.

Working For Work

75 Frederick Street

Kitchener, ON N2H 2L3

Tel: 519-570-3552

Fax: 519-570-0371

E-mail: working@workingforwork.ca

Website: www.workingforwork.ca

- Funded by HRDC.
- Program has two components: first six weeks are support group sessions; remaining eight weeks are profession-specific work placement.

Settlement.Org

c/o OCASI

110 Eglinton Avenue West, Suite 200

Toronto, ON M4R 1A3

Tel: 416-322-4950

Fax: 416-322-8084

E-mail: generalmail@ocasi.org

Website: www.settlement.org

- Comprehensive website that provides visitors with the helpful tools and answers they need for immigrating to and living in Ontario.
- Specific information is available for IEGs.

On-Site

310 Beechgrove Avenue

Ottawa, ON K1Z 6R3

Tel: 1-800-565-2427

Fax: 613-798-9817

E-mail: onsite.ottawa@epi.ca

Website: www.epi.ca/ontario/

- Helps Canadian job seekers by placing them in professional positions in a range of disciplines.
- In Ontario, candidates must be receiving Canadian Employment Insurance Benefits (EI) or have collected in the last three years.
- Employers are usually seeking university or college graduates in science, engineering, technology, environment, commerce or management.
- Successful candidates will be placed with Ontario employers for work-terms of 26 weeks in the areas of environmental management, ISO 9000 and quality management, occupational health and safety, export development, energy management or information technology.

Access to Professions and Trades

Ministry of Training, Colleges and Universities
12th Floor, 900 Bay Street, Mowat Block
Toronto, ON M7A 1L2
Tel: 416-326-9714
Fax: 416-326-6265
E-mail: aptinfo@edu.gov.on.ca
Website: www.equalopportunity.on.ca/eng_g/apt/index.html

- Offers access to credential assessment services.

NOW Program

5050 Young Street
Toronto, ON M2N 5N8
Tel: 416-393-0350
Fax: 416-939-9894
E-mail: tdec@tdsb.on.ca
Website: www.tdsb.on.ca/business/cspd/now.htm

- An eight-week program for newcomers to Canada.
- Program includes four weeks of assessment, career planning and job search techniques, followed by four weeks of an unpaid work placement.

Humber College Program For Foreign Trained Professionals and Tradespeople

1620 Albion Road, 2nd Floor
Etobicoke, ON M9V 4B4
Tel: 416-745-0281
Fax: 416-745-5718
E-mail: cstpt.etobicoke@humber.ca
Website: www.cstpt.org

- A specialized job search preparation program for newcomers to Canada that is provided over a five-week period.
- Participants are instructed and guided through the process of identifying career goals, marketable skills and developing techniques to organize and execute a job search.
- Participants may also be selected for mentoring or cooperative work placement on program completion.
- Program offered by Humber College in partnership with COSTI. Funding is provided by HRDC.

Skills For Change

791 St. Clair Avenue West
Toronto, ON M6C 1B8
Tel: 416-658-3101
Fax: 416-658-6292
E-mail: sfc@skillsforchange.org
Website: www.skillsforchange.org

- A service that has particular understanding and expertise around the frustrations and barriers that immigrants face in the Canadian labour market, especially if they are required to seek formal accreditation in their profession.
- Offers a range of services and programs.
- Programs included the STIC (Sector Orientation, Terminology, Information and Counselling) Program (see below).

STIC Program

791 St. Clair Avenue West

Toronto, ON M6C 1B8

Tel: 416-658-3101 x845

Fax: 416-658-6292

E-mail: stic@skillsforchange.org

Website: www.skillsforchange.org/stic/other/engineer.htm

- For international engineering graduates who were trained in mechanical, chemical, industrial and electrical engineering.
- Offered over six weeks of full-time study.
- Includes: assistance to research the type of engineering jobs and companies that interest the participant; information about the process of applying for a licence/certificate to practise engineering in Ontario including whether or not the work that interests the participant will require licensure; use of the Internet to find out about opportunities in the engineering field and about labour market trends; engagement with guest-speakers from Professional Engineers of Ontario (PEO) and the Ontario Association of Certified Engineering Technologists and Technicians (OACETT); meetings with other international engineering graduates who have been through the licensing process.
 - Skills-based components include: learning to use engineering terms in English; information on the licensing process; practise describing one's skills and experience in the engineering field; a variety of job search skills and resume construction techniques.
 - Life skills for employment such as long- and short-term goal planning are also covered.
 - Accepts applicants who are: Immigrant Canadian citizens or landed immigrants with at least intermediate level English (Canadian Language Benchmark stage 2, level 6); foreign-trained and unemployed newcomers looking for work in the field of engineering or who have been underemployed in Canada working in jobs unrelated to the field of engineering; and immigrants who are interested in actively learning about the profession of engineering in Ontario.

Mentoring for Employment

791 St. Clair Avenue West

Toronto, ON M6C 1B8

Tel: 416-658-3101 x209

Fax: 416-658-6292

E-mail: mentor@skillsforchange.org

Website: www.skillsforchange.org/mentoring/

- An employment preparation program for foreign-trained accountants, engineers, and life science professionals.

- Funded by the Counselling Foundation of Canada.
- Mentors work one-on-one with clients to help them achieve their employment goals while they are seeking work.
- All participants are successful graduates of employment preparation courses at Skills for Change or other approved agencies.
- Registration is done through counsellor referrals and an interview process.

Skills for Change – Alumni

791 St. Clair Avenue West

Toronto, ON M6C 1B8

Tel: 416-658-3101 x875

Fax: 416-658-6292

E-mail: alumni@skillsforchange.org

Website: www.skillsforchange.org/information_sessions/

- Sector-specific information sessions held monthly for international engineering graduates, engineering technicians, technologists, accountants and teachers trained outside Canada.

Jewish Immigrant Aid Services of Canada

4600 Bathurst Street, Suite 325

Toronto, ON M2R 3V3

Tel: 416-630-9051

Fax: 416-630-1376

E-mail: national@jias.org

Website: www.jias.org

- Oldest chartered, not-for-profit settlement organization in Canada.
- Promotes the long-term integration of newcomers into local Jewish communities from coast to coast by building partnerships between immigrants, government, charitable foundations, employers, service providers and volunteers.
- Website offers engineers a series of links to specific training, support, and licensure.

Quebec

Carrefour d'intégration

255, boulevard Crémazie Est, 8^e étage, bureau 8.01

Montréal (Québec) H2M 1L5

Tel: 514-864-9191

Fax: 514-864-9775

E-mail: renseignements.drm@mrci.gouv.qc.ca

Website: www.immigration-quebec.gouv.qc.ca

- Offices throughout the province of Quebec;
- Information services on:
 - the labour market in general;
 - professional training programs;
 - the rules governing trades and professions;
 - available positions.

- Counseling services on:
 - evaluating training and experience acquired in foreign countries;
 - developing a plan of action to assist immigrants in their efforts to secure employment.
- Referral services with governmental and non-governmental partners specialized in:
 - job searches;
 - providing assistance in preparing a curriculum vitae;
 - preparing for employment of professional training.

CAMO – PI

Comité d'adaptation de la main d'œuvre — personnes immigrantes

M^{me} Carole Séguin (514) 845-3939 poste 32

New Brunswick

Employment Coordination – Multi-Cultural Association of Fredericton

123 York Street, Suite 201

Fredericton, NB E3B 3N6

Tel: 506-454-8292

Fax: 506-450-9033

E-mail: mcaf@mcaf.nb.ca

Website: www.mcaf.nb.ca

- Works with funding partners including CIC, HRDC and Department of Canadian Heritage.
- Trains and provides a range of services to professionals who are immigrating.
- Has placed several engineers and sees approximately 40 to 50 IEG clients per year.
- Services include assistance with the process of upgrading language and licensure and job search.

Nova Scotia

New Beginnings Work Placement Program – Metropolitan Immigrant Settlement Association

Suite 200, 2131 Gottingen Street

Halifax, NS B3K 5Z7

Tel: 902-423-3607

Fax: 902-423-3154

E-mail: info@misa.ns.ca

Website: www.misa.ns.ca/ESU/New%20Beginnings.htm

- A pre-employment program for newcomers to Canada.
- Participants must have education and experience in a particular occupation, want to work in this field, require Canadian work experience, need good English language skills, and a clear career focus.
- Participants meet with an employment counsellor who provides information and referral to the program, and helps with developing a career plan and resume.

- The program begins with three core workshops: job search, interview skills, and working in Canada. These are followed by a practice interview and participation in a six-week work placement.
- The six-week, full-time work placement is unpaid.

Mentor Program

Suite 200, 2131 Gottingen Street

Halifax, NS B3K 5Z7

Tel: 902-423-3607

Fax: 902-423-3154

E-mail: info@misa.ns.ca

Website: www.misa.ns.ca/ESU/Mentor%20program.htm

- A professional mentor from a newcomer's occupation assists with advice and coaching on how to get a job in the field, provides information on key skills, training opportunities, accreditation requirements, and employment-related language and jargon.
- Mentors and newcomers are matched and meet informally over a six-month period. These meetings may include workplace tours, telephone or email contacts, attendance of professional events, or supportive conversation. This is a new program in cooperation with the Metropolitan Immigrant Settlement Association's Volunteer Services Unit.
- Provides information on how to begin the credential assessment process, and provides links to professional associations.

Prince Edward Island

Qualification Recognition Research Project – PEI Association for Newcomers to Canada:

P.O. Box 2846

179 Queen Street

Charlottetown, PEI C1A 8C4

Tel: 902-628-6009

Fax: 902-894-4928

E-mail: newcomers@isn.net

Website: www.upei.ca/~stuserv/newcomers.html

- Although this project seems to be underway, information was not accessible at time of printing.

Newfoundland and Labrador

Association For New Canadians

144 Military Road

St-John's, NL A1C 5R6

Tel: 709-722-9680

Fax: 709-754-4407

E-mail: nfoster@nfld.net

Website: www.anc-nf.cc

- The one organization identified as an immigrant service provider in the province
- Does not offer any programming specifically for IEGs.

Yukon, Nunavut and Northwest Territories

Research for this report did not reveal any settlement agencies in the north with specific programs for IEGs.

PART C – FOUNDATIONS, POLICY MAKERS, RESEARCH

The Maytree Foundation is a private Canadian charitable foundation committed to reducing poverty and inequality in Canada, and to building strong civic communities. The Foundation seeks to accomplish its objectives by identifying, supporting and funding ideas, leaders and leading organizations that have the capacity to make change and advance the common good.⁴⁶ The Foundation is a leading resource for any service provider developing programs, academic seeking current research, or immigrant with professional credentials from his or her home country.

Maytree's *Immigrant and Refugee Program* specifically targets the two main requirements that the Foundation has identified as central to successful settlement: for refugees, the need to have residence in Canada free from persecution, and for immigrants (especially professionals), the ability to work and establish residency.

The *Immigrant and Refugee Program* helps immigrants access employment and promotes fair recognition of immigrants' skills, education and experience. It also offers financial assistance, in the form of scholarships and loans, to newcomers who otherwise would not have access to education because of high tuition fees and other cost barriers.

The home page of the Maytree Foundation's website provides additional links to settlement services, credential assessment services for professions and trades, and jointly funded government programs for foreign-trained professionals.

⁴⁶ The Maytree Foundation, www.maytree.com

APPENDIX C

Licensing Processes by Province and Territory

Information presented in a normal font means it was found on a regulatory body's website. All *italicized* information means the information was not on the web but was provided by the regulatory body over the telephone. This gives some sense of the ease with which such information would be available to an IEG. In addition, the reader will note varying terminology to describe similar items. The author has deliberately maintained these differences to illustrate the variance in nomenclature across the country. A final note: the process to be followed in each jurisdiction is not necessarily represented by the order of the items in this table — the reader should refer to the flowcharts that are featured on the members' only section of the CCPE website.

License or registration?

The term "licensing" is used by PEO, CCPE and some others. Registration is used by others.

BRITISH COLUMBIA

Association: Association of Professional Engineers and Geoscientists of British Columbia (APEGBC)

Website: www.apeg.bc.ca

Year Established: 1920

Membership: 19,366

Please click on the following link to access the Registration Home Page for British Columbia

www.apeg.bc.ca/reg/RegistrationHomePage.html

Citizenship	
Canadian Citizenship or Landed Immigrant	<ul style="list-style-type: none"> • If not Canadian or Landed Immigrant, apply for non-resident license • <i>Non-resident licence is typically for non-Canadian engineers living outside of Canada and wanting to do a project in B.C.</i>
Education	
Recognized Degrees	<ul style="list-style-type: none"> • Graduation from an engineering/applied science program accredited by the Canadian Engineering Accreditation Board (CEAB)
Equivalent Degrees	<ul style="list-style-type: none"> • Graduation from an engineering/applied science program covered by a mutual recognition agreement entered into by the Canadian Council of Professional Engineers (CCPE) and recognized by the Association
Other	<ul style="list-style-type: none"> • Special consideration may be given to an applicant who does not meet the formal education requirements but is generally recognized as being an expert in an engineering specialty. • Exemption from examinations or assignment of a special examination may be considered • Special consideration may be given to an applicant who has provided satisfactory evidence of being particularly well-qualified in a discipline of engineering as judged by the depth and breadth of their academic education and/or engineering experience • Such candidates may be exempted from examinations in subjects required by the Uniform Syllabus which are not relevant to the work being performed, provided that other academic subjects were passed which are not required by the syllabus but are relevant to the work being performed • Examinations may be reduced or waived for applicants with a bachelors in engineering and ten or more years of experience, provided that they successfully prove to an interview panel that they understand and have applied engineering principles in their discipline to a level and breadth that warrants exemption from or reduction of confirmatory examinations • Confirmatory examinations may be reduced or waived for applicants holding a postgraduate degree(s) in the same discipline as the undergraduate degrees
Engineer-In-Training	
Application	<ul style="list-style-type: none"> • <i>Candidate has demonstrated academic qualification, but is still working toward gaining the required 4 years of engineering experience for P.Eng. registration</i>

Review	<ul style="list-style-type: none"> • <i>Online reporting system allows EITs to report their engineering work experience in six-month increments, have it confirmed by their supervising professional, and receive feedback from reviewers and credit towards the four year experience requirement. The final four year review requires references and review by two reviewers. Candidates are interviewed at the four year point if more information is needed regarding their experience</i> • <i>Candidates who satisfy the academic requirements, have successfully completed the Law & Ethics Seminar and Professional Practice Examination, have satisfied the four year experience, training and development requirement in engineering satisfactory to the Council, but do not have at least one year of experience, training and development satisfactory to the Council in a Canadian environment, have satisfied the good character requirements and have paid all associated fees</i>
Provisional Member	
	<ul style="list-style-type: none"> • <i>Candidates who satisfy the academic requirements, have successfully completed the Law & Ethics Seminar and Professional Practice Examination, have four years of experience, training and development requirement in engineering satisfactory to the Council, but do not have at least one year of experience, training and development satisfactory to the Council in a Canadian environment, have satisfied the good character requirements and has paid all associated fees</i>
Experience	
Engineering experience	<ul style="list-style-type: none"> • <i>A minimum of four years of satisfactory engineering work experience</i> • <i>At least one of these years must be gained in a Canadian environment, under the direct supervision of a Canadian professional engineer</i>
References	<ul style="list-style-type: none"> • <i>Must nominate four or more Canadian and/or US referees</i> • <i>Referees should be professional engineers with good knowledge of candidate's work</i> • <i>Two of the referees should have directly supervised the candidate</i> • <i>One professional engineer should be familiar with the candidate's work from outside his or her company (if possible)</i> • <i>If experience outside Canada/ United States must be verified, additional referees are required (number depends on case-per-case scenario)</i> • <i>Separate letter is required, explaining circumstances, should the candidate be unable to nominate the required referees</i> • <i>Professional engineers with indirect knowledge of the candidate's work may be nominated if absolutely necessary</i>

Examination	
Confirmatory & Qualifying Examinations	<ul style="list-style-type: none"> • Applicants who have an engineering/applied science degree may be exempted from examinations based on ten years of satisfactory engineering experience and a <i>successful assessment interview</i>, under the Looking-To-Exempt Policy • Exemption from examinations based on an engineering/ applied science degree and an acceptable <i>post-graduate</i> degree in engineering/applied science • Successful completion of a set of confirmatory examinations assigned by the Association for the applicant to demonstrate his/her academic level. Note that failure of any confirmatory examination will result in a re-evaluation, and will result in the assignment of discipline-specific qualifying examinations • For applicants with at least two years of post-secondary education: exemption from/<i>assignment of</i> examinations following a detailed examination of credentials which confirms <i>the degree to which</i> the applicant's academic qualifications satisfy requirements of the Uniform Syllabus of Examinations prepared by CCPE and endorsed by the Association
Professional Practice and Ethics Exam	<ul style="list-style-type: none"> • Must write the exam <i>and must attend the Law and Ethics Seminar in person or by distance learning</i>
Fees	
Member-In-Training	
Application	\$400.00 <i>Note: Unless the application is made within 12 months of graduation from a university program</i>
Annual Membership	\$149.80
Professional Members	
Application	\$360.00
Registration	\$175.00
Annual Membership	\$256.80
Examination	
Per exam	\$275.00
Law and Ethics Seminar or CD Set	\$288.90
Professional Practice and Ethics Exam	\$150.00

APEGBC has been working with the provincial government on a special research project, the Pilot Project for Internationally Trained Engineers. The goal of this Pilot Project is to identify and reduce barriers for skilled immigrants entering professions and trades. The Pilot was officially launched in Spring 2001 and was completed in late Summer 2003.

The Pilot Project is an action-research project with focused activities in three results-oriented areas:

Professional Work Experience & Training — Customized training and job matching services aim to provide opportunities for a sample of twenty internationally trained engineers;

Policies & Procedures Review — An assessment of registration and service policies and procedures intends to reduce institutional barriers to newcomers; and

Information Services — Market research and information aims to improve understanding of international qualifications, realities of the job market, professional registration requirements, Canadian and workplace culture, job search techniques, and training and employment opportunities.

An on-going evaluation of the Pilot Project is being conducted. This exercise will capture and enhance our learning from the Pilot activities.

ALBERTA

Association: Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA)

Website: www.apegga.org

Year Established: 1920

Membership: 38,223

Please click on the following link to access the flowchart representing the licensing process in Alberta.

www.apegga.com/members/registration/documents/reg_process_general.htm

Citizenship	
Canadian Citizenship or Landed Immigrant	<ul style="list-style-type: none"> • Canadian Citizenship or Landed Immigrant status is required when requesting registration • If applicant does not hold either status, must apply for registration as a Foreign Licensee
Education	
Recognized Degrees	<ul style="list-style-type: none"> • Undergraduate degree from a recognized accredited engineering program
Equivalent Degrees	<ul style="list-style-type: none"> • <i>Applicant is not already in an APEGGA register or record, but has the combined academic qualifications acceptable to the Board of Examiners that would be required for registration as a professional member</i>
Other	<ul style="list-style-type: none"> • <i>If the applicant does not have a degree in engineering, he/she is assigned examinations based on deficiencies in comparison to approved syllabus, and must have at least eight years of experience acceptable to the Board of Examiners, at least one year of which must be obtained after completion of the examinations assessed by the board</i>

Member-In-Training	
Application	<ul style="list-style-type: none"> • Applicant must provide either a Certificate of Graduation or official transcripts • Applicant must be of good character and regulation • Must be fluent in English • If English is not the applicant's first language, must demonstrate fluency in writing or provide TOEFL examination results
Experience	
Engineering experience	<ul style="list-style-type: none"> • <i>To request registration as a Professional Member or Foreign Licensee, must have completed four years on-the-job work experience ideally under the supervision of a licensed professional</i> • <i>12 months of Canadian or Canadian-like experience is required</i>
References	<ul style="list-style-type: none"> • <i>Require a minimum of three references</i> • <i>Minimum of one reference has to be a professional engineer</i> • <i>Minimum of one supervisory reference</i>
Examination	
Confirmatory Examinations	<ul style="list-style-type: none"> • <i>If the applicant has a degree that is not accredited, must write confirmatory exams</i> • <i>Applicants can be assessed up to three confirmatory examinations plus a course in engineering economics</i> • <i>Board may consider a reduction in examinations on the basis of extensive, high-quality experience and evidence of outstanding technical ability</i> • <i>Board may consider reducing the number of exams if the applicant has a minimum of ten years acceptable experience</i>
Professional Practice and Ethics Exam	<ul style="list-style-type: none"> • <i>Demonstrate knowledge of law and ethics by passing</i>
Fees	
Member-In-Training	
New applicants	\$105.00
Professional Members	
Current/Former MIT with APEGGA	\$220.00
Assessment Fee	
For assessment of academic qualifications only of persons contemplating immigration to Alberta	\$110.00
Examination Fees	
Per exam	\$150.00
Professional Practice and Ethics Exam	\$100.00

In June 2003, APEGGA's Council approved the creation of a "provisional license" for foreign applicants similar to models currently in place in B.C., Ont. and Newfoundland. They are currently taking steps to prepare documentation for the province to make the necessary regulation changes under our Act. The proposal will likely permit foreign graduates who meet all the academic and experience requirements for licensure except the one year of North American experience to practice and stamp drawings in conjunction with a licensed professional. As always, EITs may practice under supervision of a licensed professional.

SASKATCHEWAN

Association: Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS)

Website: www.apegs.sk.ca

Year Established: 1930

Membership: 5,105

Citizenship	
Canadian Citizenship or Landed Immigrant	<ul style="list-style-type: none"> • <i>At the time of application, the person does not have to be a resident of Saskatchewan</i> • <i>Person outside of country can apply and can be registered</i>
Education	
Recognized Degrees	<ul style="list-style-type: none"> • <i>CEAB accredited Bachelors degree in engineering</i>
Equivalent Degrees	<ul style="list-style-type: none"> • <i>A bachelor degree in engineering from an accredited institution in a country with whom Canada has a MRA</i> • <i>Applicants with an international bachelors degree in engineering from a university on the CEQB list of foreign institutions, with a Canadian Masters or Doctorate in the same discipline</i>
Other	<ul style="list-style-type: none"> • <i>Applicants who do not have a recognized bachelor degree must have their academic credentials assessed</i>
Engineer-In-Training	
Application	<ul style="list-style-type: none"> • <i>Must complete the Engineer-in-Training application for registration</i> • <i>Association will arrange that the information be verified by the applicant's university</i>
Experience	
Engineering experience	<ul style="list-style-type: none"> • <i>EIT must be monitored by an engineering supervisor and/ or an engineering mentor</i> • <i>EIT must submit a completed form for each period of employment that is six months or less in length for a total of four years</i>
References	<ul style="list-style-type: none"> • <i>Must submit at least three Professional Engineers contact information</i> • <i>Should include the Professional Engineer supervisors or mentors who have previously reported to the APEGS on the applicant's work experience</i>

Examination	
Confirmatory Examinations	<ul style="list-style-type: none"> • <i>A maximum of six examinations may be administered</i>
Professional Practice and Ethics Exam	<ul style="list-style-type: none"> • Must be registered as an EIT with the APEGS • Must have completed at least 18 months of post-graduate engineering work experience
Fees	
Assessment	
Academic assessment fee	\$214.00
Engineer-In-Training	
Registration	\$128.40
Annual membership and license fee	\$214.00
Professional Members	
Registration fee	\$240.75
Annual membership and license fee	\$321.00
Examination	
Per exam (<i>PEO exams are administered</i>)	\$150.00
Professional Practice Exam	\$283.55

Saskatchewan legislation provides that Engineers-in-Training can obtain a licence to practice, thus an IEG must have their academic credentials recognized by Council and they are then licensed to practice as an Engineer-in-Training (albeit under an engineer supervisor or an engineer mentor).

MANITOBA

Association: Association of Professional Engineers and Geoscientists of Manitoba (APEGM)

Website: www.apegm.mb.ca

Year Established: 1920

Membership: 3,874

Citizenship	
Canadian Citizenship or Landed Immigrant	<ul style="list-style-type: none"> • Licensing/registration process may begin from the country of origin • In order to become registered, applicants must be <i>legally entitled to work in Manitoba</i>
Education	
Recognized Degrees	<ul style="list-style-type: none"> • <i>Graduation from an engineering/applied science program accredited by the Canadian Engineering Accreditation Board (CEAB)</i>

Equivalent Degrees	<ul style="list-style-type: none"> • Graduation from an engineering/applied science program covered by a mutual recognition agreement entered into by the Canadian Council of Professional Engineers (CCPE) and recognized by the Association • Applicants holding these degrees are required to make application for Verification Assessment of Academic Credentials, and submit a transcript of marks and a detailed resume of work experience • Applicants with CEAB-accredited degrees obtained over 10 years ago must also make application for Verification Assessment
Other	<ul style="list-style-type: none"> • All other degrees must be assessed on a course-by-course basis by the Association's Academic Review Committee • Applicants holding all other degrees are required to make application for Assessment of Academic Credentials and provide original or notarized copies of their degrees, transcripts of marks, syllabi giving complete course content and resume of work experience
Engineer-In-Training	
Application	<ul style="list-style-type: none"> • EIT are required to complete the Association's Pre-Registration Program in order to be eligible for registration as P.Eng. • Submit transcripts and copies of degrees
Review	<ul style="list-style-type: none"> • EIT are required to complete the Association's EIT Progress Report Form every six months
Experience	
Engineering experience	<ul style="list-style-type: none"> • Four years' acceptable work experience • At least 12 months of the required work experience must have been obtained in Canada or in a Canadian environment • At least 32 hours of volunteer service activity • At least 40 hours of professional development activity
References	<ul style="list-style-type: none"> • Usually two or more • Two of the references must be from professional engineers
Examination	
Confirmatory/Proficiency Examinations	<ul style="list-style-type: none"> • Exams are set and marked in Ontario • Exams are assigned to confirm applicant's engineering knowledge or to fill in gaps in the applicant's program of study
Professional Practice and Ethics Exam	<ul style="list-style-type: none"> • National Professional Practice Examination

Fees	
Engineer-In-Training	
New applicants:	
<i>Administration Fee (one time)</i>	\$100.00
<i>Annual Dues)</i>	\$99.00
Professional Members	
<i>Practicing</i>	\$248.00
<i>Retired</i>	\$74.00
Assessment Fee	
<i>Assessment</i>	\$337.00
Examination	
<i>Per exam</i>	\$240.00
<i>Annual examination fee</i>	\$128.00
<i>Professional Practice Exam – administered by APEGGA</i>	\$100.00
<i>National Study Material Kit</i>	\$105.00

Note: Fees include GST

There is no provisional licensing in Manitoba, although there is the EIT provision. There is also a limited license provision in the Act. It is called a “specified scope of practice licence” and has not yet been implemented. The section of the Act reads: “Qualifications for specified scope of practice licence: A specified scope of practice licence to engage in the practise of professional engineering or the practice of professional geoscience within the province, and within the scope and subject to the restrictions specified in such practice licence, may be granted if the applicant (a) is a natural person at least 18 years of age; (b) submits evidence to the registration committee that the applicant meets such requirements as the council may from time to time prescribe for such class of applicant; (c) submits evidence to the registration committee that the applicant has subscribed to and agreed to abide by the code of ethics of the association; (d) pays the dues and fees prescribed by the by-law; and (e) complies with such other terms and conditions as may be imposed in accordance with this Act or the by-laws.” Note the “within the scope and subject to the restrictions specified”. Such a license could easily become a step to full licensure while a person is satisfying the conditions to remove the “restrictions”.

ONTARIO

Association: Professional Engineers Ontario (PEO)

Website: www.peo.on.ca

Year Established: 1922

Membership: 65,116

Citizenship	
Canadian Citizenship or Landed Immigrant	<ul style="list-style-type: none"> • Be a citizen or permanent resident of Canada • Licensing/registration process may begin from overseas
Education	
Recognized Degrees and Equivalent Degrees	<ul style="list-style-type: none"> • Bachelor's degree in engineering from a Canadian university program accredited by the Canadian Engineering Accreditation Board (CEAB) of the Canadian Council of Professional Engineers (CCPE), or equivalent academic qualifications
Other	<ul style="list-style-type: none"> • If the applicant does not have an undergraduate degree in engineering from a program accredited by the CEAB, the academic background will be assessed by PEO to determine whether it is equivalent to the established standards
Engineer-In-Training	
Application	<ul style="list-style-type: none"> • Be at least 18 years of age • Be of good character • Applicants must provide documentary evidence of qualifications for assessment • Include the appropriate fees to initiate the application for license • Complete the application form with the supporting documentation requested • Submit detailed course descriptions (syllabus) • Submit an experience record • Must submit notarized English translation as well as the original documents
Experience	
Engineering experience	<ul style="list-style-type: none"> • Demonstrate 48 months of verifiable acceptable engineering experience gained following graduation • Must acquire at least 12 months of acceptable engineering experience in a Canadian jurisdiction, under a licensed professional engineer
References	<ul style="list-style-type: none"> • <i>Three references are required</i> • <i>At least one reference must be a P.Eng. under whose supervision the applicant has worked</i> • <i>Where credit is sought for work stints with different employers, each supervisor is expected to provide feedback about the applicant's capability and suitability for licensure</i>

Examination	
Confirmatory Examinations	<ul style="list-style-type: none"> Assigned if applicant does not have an undergraduate degree in engineering from a program accredited by the CEAB to confirm knowledge or remedy identified deficiencies in academic preparation
Professional Practice and Ethics Exam	<ul style="list-style-type: none"> Exam is offered three times a year in 16 different Ontario cities/ towns <i>Exam may be written at overseas location</i>
Fees	
Assessment	
Application	\$187.25
Engineer-In-Training	
Annual Dues	\$53.50
Engineering report	\$225.00
Professional Members	
Registration fee	\$187.25
Annual membership fee	\$160.50
Examination	
Technical Examination Programs	\$285.00
Professional Practice Exam	\$100.00

A provisional licence may be issued to an applicant for a professional engineer (P.Eng.) licence who has satisfied all of PEO's licensing requirements except for the minimum 12 months of verifiable and acceptable engineering experience in a Canadian jurisdiction, under the supervision of a professional engineer licensed in the jurisdiction in which the work was undertaken.

Criteria for acceptable engineering experience can be found in PEO's Guide to the Required Experience for Licensing as a Professional Engineer in Ontario. To qualify for a provisional licence, a P.Eng. licence applicant will have: satisfied PEO's academic requirements for licensing; passed PEO's Professional Practice Examination; and demonstrated to PEO's satisfaction at least 36 months of acceptable and verifiable engineering experience outside of Canada (for applications received after June 30, 1998).

QUEBEC

Association: Ordre des ingénieurs du Québec (OIQ)

Website: www.oiq.qc.ca

Year Established: 1920

Membership: 46,000

Please click on the following link to access the flowchart representing the licensing process in Quebec.

www.oiq.qc.ca/profession/FRAME-ProfessionA.html

Citizenship	
Canadian Citizenship or Landed Immigrant	<ul style="list-style-type: none"> • <i>Canadian Citizenship or Landed Immigrant is not a requirement for membership in OIQ</i>
Education	
Recognized Degrees	<ul style="list-style-type: none"> • Bachelor degrees in engineering from Quebec educational institutions recognized by the Quebec government give access to permits issued by the OIQ • Candidates who hold one of these degrees are not subject to take the admission examinations
Equivalent Degrees	<ul style="list-style-type: none"> • Degrees awarded by Canadian educational institutions outside of Quebec upon completion of a program of study accredited by the Canadian Engineering Accreditation Board (CEAB) • Engineering degrees issued by foreign educational institutions upon completion of a program of study accredited by an organization whose accreditation criteria and procedures comply with those of the CEAB (Washington Accord, CCPE-OIQ-CTI Accord) • Candidates who hold one of these degrees may not be required to take the admission examinations
Other	<ul style="list-style-type: none"> • Undergraduate degrees in engineering that are neither recognized by the government nor deemed equivalent by the Bureau of the Ordre • Undergraduate degrees in pure or applied sciences, or technology, equivalent to at least a bachelor's degree
Junior Engineer (same as Engineer-In-Training)	
Application	<ul style="list-style-type: none"> • Application form • Copy of birth certificate • Recent passport-size photo certified by the candidate's signature • Any degree in support of the application or an attestation that it has been awarded • Official transcripts for each of the degrees in support of the application sent directly by the educational institution that has issued it • Course descriptions, if requested • Detailed summary of work experience since the completion of an engineering degree • Reference for each work experience • Certificate of participation in training or professional development activities after completion of an engineering degree • Documents that prove the candidate's knowledge of the French language

Review	<ul style="list-style-type: none"> • Applications from candidates who do not hold a degree that is recognized by the Quebec government as one that gives access to OIQ permits are subject to review by the Committee of examiners
Experience	
Engineering experience	<ul style="list-style-type: none"> • 36 months of engineering experience- some months can be replaced with experience credits • At least 12 months of the experience must be spent in Canada
Sponsorship program	<ul style="list-style-type: none"> • Optional (gives experience credits)
Examination	
Admission/Examinations	<ul style="list-style-type: none"> • Applicants with a degree recognized by the government or a degree accredited by the CEAB or by an authorized organization whose criteria and procedures comply with those of the CEAB: the Committee can recommend that the Bureau recognize the degree as equivalent or, in specific circumstances, assign confirmatory examinations (up to five confirmatory examinations) • Applicants with other degrees: the Committee can recommend that the Bureau recognize their training as equivalent either immediately or after the applicant pass the examinations (up to five confirmatory examinations for graduates in engineering or up to 13 qualifying examinations for graduates in science or technology)
Professional Practic Exam	<ul style="list-style-type: none"> • Three part examination • Applicants have three hours to write the exam • OIQ holds the examination on 14 dates annually throughout Quebec
Fees	
Assessment	
Engineering experience	\$115.03
Application	
Candidates with recognized or CEAB accredited degrees	\$57.51
Candidates with other degrees	\$460.10
Junior Engineer (Engineer-In-Training)	
Registration	\$34.51
Annual dues	\$103.52
<i>Financing of the Office des professions</i>	\$22.25
<i>Group plan insurance regime for professional liability</i>	\$7.77
Professional Members	
<i>Registration fee</i>	\$69.02
Annual dues	\$207.05

Financing of the Office des professions	\$22.25
<i>Group plan insurance regime for professional liability</i>	\$15.53
Examinations	
Admission Examinations (per exam)	\$138.03
<i>Professional Practice Exam</i>	\$138.03

NEW BRUNSWICK

Association: Association of Professional Engineers and Geoscientists of New Brunswick (APEGNB)

Website: www.apegnb.com

Year Established: 1920

Membership: 3,260

Citizenship	
Canadian Citizenship or Landed Immigrant	<ul style="list-style-type: none"> • <i>Must be resident of Canada to apply</i>
Education	
Recognized Degrees	<ul style="list-style-type: none"> • Completion of an undergraduate degree in engineering from an accredited university program or other academic or technical institution recognized by the Council
Equivalent Degrees	<ul style="list-style-type: none"> • <i>Degrees in engineering obtained from a non-CEAB-accredited program</i>
Other	<ul style="list-style-type: none"> • For candidates (<i>internationally trained engineers</i>) who have not completed an engineering undergraduate degree from an accredited institution, a series of examinations may be taken as determined by the Association
Engineer-In-Training	
Application	<ul style="list-style-type: none"> • Application for registration as an EIT with the Association • <i>Proof of Immigration status</i> • <i>Provide original transcript</i> • <i>Provide course description</i>
Review	<ul style="list-style-type: none"> • Approval of the application for EIT registration by the Admission Committee of the Association, and subsequent ratification by the Council of the Association • There is an academic review

Experience	
Engineering experience	<ul style="list-style-type: none"> • A minimum of four years of certified engineering experience is required prior to registration as a P.Eng. • All portions of the four years must be certified by a registered Professional Engineer • A maximum of one year toward this experience requirement may be recognized through the completion of a post-graduate degree in engineering • Completion of the required amount of certified engineering, under the supervision of a Professional Engineer • <i>Candidates are required to have 12 months of Canadian experience</i>
Examination	
Confirmatory Examinations	<ul style="list-style-type: none"> • <i>Assigned to candidates who do not have a CEAB accredited degree to confirm knowledge</i>
Professional Practice and Ethics Exam	<ul style="list-style-type: none"> • <i>Must write the exam to become P.Eng.</i>
Fees	
Engineer-In-Training	
<i>No fee first year; following years only</i>	<i>\$54.00 + HST</i>
Professional Members	
<i>Registration</i>	<i>\$216.00 + HST</i>
<i>Annual dues</i>	<i>\$216.00 + HST</i>
Assessment Fee	
<i>Assessment fee</i>	<i>\$108.00 + HST</i>
<i>Application fee</i>	<i>\$150.00 + HST</i>
Examination	
<i>Per exam</i>	<i>\$250.00 + HST</i>
<i>Professional Practice and Ethics Exam</i>	<i>\$100.00 + HST</i>

NOVA SCOTIA

Association: Association of Professional Engineers of Nova Scotia (APENS)

Website: www.apens.ns.ca

Year Established: 1920

Membership: 4,505

Citizenship	
Canadian Citizenship or Landed Immigrant	<ul style="list-style-type: none"> • Canadian or landed immigrant • Must include papers (IMM1 000) or Citizenship Card
Education	
Recognized Degrees	<ul style="list-style-type: none"> • Bachelor of Engineering degree from an accredited or recognized University
Equivalent Degrees	<ul style="list-style-type: none"> • Degree must be considered by APENS and CEAB as equivalent to CEAB-accredited degrees
Other	<ul style="list-style-type: none"> • Board of Examiners will assess
Engineer-In-Training	
Application	<ul style="list-style-type: none"> • Completed application • Current proof of residency in Nova Scotia • Nova Scotia Drivers' License • Nova Scotia Health card photocopy • Up to date resume • Original transcripts (officially translated) • University course descriptions • Detailed work history • Results from the Canadian Council of Professional engineers Initial Assessment Report and letter, if received • When applicant's first language is not English, the ability to communicate effectively in English both orally and in writing is required • Positive results of the TOEFL or CanTEST are acceptable documentation of English proficiency
Experience	
Engineering experience	<ul style="list-style-type: none"> • Four years of relevant engineering experience • Up to 12 months experience may be granted for qualified Pre-Graduation Experience • Completed work experience diaries for approval by the board of examiners in the case of an application from a graduate of an offshore university • <i>12 months North American and North-American-like experience</i>
References	<ul style="list-style-type: none"> • <i>Four references, of which three have to be Professional Engineers in Canada</i>

Examination	
Confirmatory Examinations	<ul style="list-style-type: none"> Assigned if applicant does not have an undergraduate degree in engineering from a program accredited by the CEAB
Professional Practice and Ethics Exam	<ul style="list-style-type: none"> All applicants must write the Professional Practice and Ethics exam
Fees	
Assessment	
Assessment fee	\$230.00
Engineer-In-Training	
Annual Dues	\$109.25
Professional Members	
Regular Full Member	\$243.80
Examination	
Per exam	\$150.00
Professional Practice and Ethics Exam	\$125.00

APENS legislation provides that Engineers-in-Training can practice under the supervision of a registered engineer. Any person who has their academic credentials recognized by Council, or who has passed examinations prescribed by Council, may be enrolled as an Engineer-in-Training.

PRINCE EDWARD ISLAND

Association: Association of Professional Engineers of Prince Edward Island (APEPEI)

Website: www.aepepei.com

Year Established: 1955

Membership: 239

Citizenship	
Canadian Citizenship or Landed Immigrant	<ul style="list-style-type: none"> Canadian or Landed Immigrant Must be a PEI resident or in the process of becoming a PEI resident

Education	
Recognized Degrees	<ul style="list-style-type: none"> • Graduate in engineering or applied science of an academic or technical institution recognized by the Council • Graduates with an accredited engineering degree from a Canadian or American university must arrange to have a letter from the Registrar mailed directly to APEPEI
Equivalent Degrees	<ul style="list-style-type: none"> • <i>Degrees in engineering obtained from a non-CEAB-accredited program</i> • <i>Candidate will be required to do confirmatory examinations</i>
Other	<ul style="list-style-type: none"> • Applicants with degrees from non-accredited universities must provide proof of graduation, transcript of their subjects and a course content description
Engineer-In-Training	
Application	<ul style="list-style-type: none"> • Application • Transcripts
Review	<ul style="list-style-type: none"> • When difficulty in assessing education, candidates may be required to go through interview process
Experience	
Engineering experience	<ul style="list-style-type: none"> • Fulfilled the requirements of approved engineering experience as prescribed in the bylaws • Masters degree in Engineering, if combined with work experience during enrolment in the program, may be considered by Council as equivalent to one year of engineering work experience • Total of four years experience acceptable to Council must be attested to by a registered professional • 12 months of Canadian or equivalent experience
References	<ul style="list-style-type: none"> • Three references from professional engineers are required • One reference must be a member of APEPEI
Examination	
Confirmatory Examinations (for members-in-training)	<ul style="list-style-type: none"> • Successfully completed any examinations that may be prescribed by Council
Professional Practice and Ethics Exam	<ul style="list-style-type: none"> • Yes

Fees	
Engineer-In-Training	
Registration Fee	\$25.00
Annual Dues	\$65.00
Professional Members	
Registration fee	\$50.00
Annual dues	\$180.00
Examination	
Professional Practice Exam	\$125.00

EIT status — an applicant with the requisite academic qualifications can enroll as an EIT and when enrolled can engage in the practice of engineering under the supervision of a Professional Engineer.

NEWFOUNDLAND AND LABRADOR

Association: Association of Professional Engineers and Geoscientists of Newfoundland (APEGN)

Website: www.apegn.nf.ca

Year Established: 1952

Membership: 2,372

Citizenship	
Canadian Citizenship or Landed Immigrant	<ul style="list-style-type: none"> • Canadian or landed immigrant • If not Canadian or landed immigrant, apply for non-resident license
Education	
Recognized Degrees	<ul style="list-style-type: none"> • Degree in Engineering from a university program approved by the Board of Examiners or its Executive Committee
Equivalent Degrees	<ul style="list-style-type: none"> • Academic standing equivalent to a Degree in Engineering demonstrated by successful completing of such confirmatory examination as may be required by the Board of Examiners or its Executive Committee
Other	<ul style="list-style-type: none"> • <i>To the discretion of the Board of Examiners</i>
Engineer-In-Training	
Application	<ul style="list-style-type: none"> • <i>Fill in the application form</i>

Experience	
Engineering experience	<ul style="list-style-type: none"> • At least four years of experience, satisfactory to the Board of Examiners or its Executive Committee in the practice of engineering • For applicants in the 'other' category of education, at least eight years of experience satisfactory to the Board of Examiners or its Executive Committee in the practice of engineering, two years of which must be obtained subsequent to successful completion of the prescribed examinations • One-year of work experience in a Canadian environment • Applicant is required to provide the APEGN a signed agreement between him/herself and the collaborator subject to acceptance of such signed agreement, the one year Canadian Environment experience may be waived and registration approved • An applicant who has met all other requirements for the exception of the one-year of work experience in a Canadian environment, may develop a formal relationship with a fully qualified member of APEGN who will act as a collaborator for the interim period (Collaborator must be of the same profession and discipline as the applicant as well as part of the same work team)
Examination	
Confirmatory Examinations	<ul style="list-style-type: none"> • <i>If the applicant has a degree that is not accredited, must write confirmatory exams</i>
Professional Practice and Ethics Exam	<ul style="list-style-type: none"> • Applicant must write the professional practice and ethics examination and seminar
Fees	
Registration	
Application fee/Transfer fee	\$253.00
Member-In-Training	
Annual Dues	\$128.80
Professional Members	
Annual Dues	\$257.60
Examination	
Per exam	\$138.00

NORTHWEST TERRITORIES AND NUNAVUT

Association: Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories (NAPEGG)

Website: www.napegg.nt.ca

Year Established: 1978

Membership: 219

Please click on the following link to access the flowchart representing the licensing process in the Northwest Territories and Nunavut.

www.napegg.nt.ca/docs/applyPdf/regProcAppNotRegElseCan.pdf

Citizenship	
Canadian Citizenship or Landed Immigrant	<ul style="list-style-type: none"> • Member must be a resident of the Northwest Territories or Nunavut at time of registration • <i>Non residents are registered as Licensees (Canadian or Foreign)</i> • <i>MITs are residents of the Northwest Territories or Nunavut at the time of registration</i> • <i>Canadian Citizen, permanent resident or lawfully permitted to work in Canada</i>
Education	
Recognized Degrees	<ul style="list-style-type: none"> • Confirmed degree in Engineering from a university program approved by the Board of Examiners
Equivalent Degrees	<ul style="list-style-type: none"> • University qualifications acceptable to the Board of Examiners in a related program
Other	<ul style="list-style-type: none"> • Equivalent qualifications demonstrated by passing confirmatory examination(s) as may be required by the board
Member-In-Training	
Application	<ul style="list-style-type: none"> • <i>Submit the registration form and supply character reference</i>
Review	<ul style="list-style-type: none"> • <i>Academics are confirmed by Board of Examiners</i>
Experience	
Engineering experience	<ul style="list-style-type: none"> • Four years experience satisfactory to the Board of Examiners in the practice of engineering • Ten years of engineering work for applicants whose academic qualifications are met by passing confirmatory examinations • <i>At least one year of Canadian experience</i>
References	<ul style="list-style-type: none"> • <i>Three references</i> • <i>Types of referees is to the discretion of the Board of Examiners</i>

Examination	
Confirmatory Examinations	<ul style="list-style-type: none"> • Applicants who do not have a recognized degree
Knowledge of the Act	<ul style="list-style-type: none"> • <i>Essay must be submitted and approved</i>
Professional Practice and Ethics Exam	<ul style="list-style-type: none"> • <i>All new applicants must pass</i> • <i>Applicants under Inter-Association Mobility Agreement (IAMA) may be exempt from the Professional Practice and Ethics Exam (for applicants who are transferring from other constituent associations)</i>
Fees	
Application	
Member-In-Training	\$133.75
Professional Member	\$321.00
Member-In-Training to Member	\$187.25
Annual Dues	
Member-In-Training	\$235.40
Professional Member	\$107.00

Note: NAPEGG represents the Northwest Territories and Nunavut Territory

NAPEGG does not have a provisional or conditional license. They do allow EITs to practice (under a registered engineering supervisor).

YUKON

Association: Association of Professional Engineers of Yukon (APEY)

Website: www.apey.yk.ca

Year Established: 1955

Note: Applications for first Canadian registration are accepted. They are reviewed by the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA).

Citizenship	
Canadian Citizenship or Landed Immigrant	<ul style="list-style-type: none"> • To apply for membership in APEY, an applicant must be registered in good standing as an Engineer with another provincial/territorial association • Applications for first Canadian registration are accepted. They are reviewed by the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA)
Education	
Recognized Degrees	<ul style="list-style-type: none"> • A confirmed degree in engineering from a university program which is accredited by the Canadian Engineering Accreditation Board and is recognized by the Board of Examiners
Equivalent Degrees	<ul style="list-style-type: none"> • Graduate of a program which the Board of Examiners judges to be equivalent

Engineer-In-Training	
Application	<ul style="list-style-type: none"> Applications for first Canadian registration are accepted. They are reviewed by the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA)
Review	<ul style="list-style-type: none"> Applications for first Canadian registration are accepted. They are reviewed by the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA)
Experience	
Engineering experience	<ul style="list-style-type: none"> Has at least four years experience in Engineering acceptable to the Board of Examiners
Examination	
Confirmatory Examinations (for members-in-training)	<ul style="list-style-type: none"> Applications for first Canadian registration are accepted. They are reviewed by the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA)
Professional Practice and Ethics Exam	<ul style="list-style-type: none"> Knowledge of the Act, practice of profession including the Code of Ethics demonstrated by passing one or more examinations set by the Board of Examiners
Fees	
Member-In-Training	
Fees	\$46.40 + GST
Professional Members	
Fees	\$181.50 + GST
Assessment Fee	
For assessment of academic qualifications only of persons contemplating immigration to Yukon	\$220.00 + GST

APEY will register an EIT allowing them to practice (under an registered engineer supervisor). For an IEG to obtain this standing, their academic credentials must be recognized by the APEY Board of Examiners. As APEY is a small association with limited resources, APEGGA reviews on APEY's behalf each applicant's academic record. APEY does not issue temporary licenses. The Association does issue a limited license to individuals who qualify in a specific area of engineering and whose qualifications and experience are first approved by the APEY Board of Examiners.

APPENDIX D

IEG Focus Groups

FOCUS GROUP RESEARCH METHODOLOGY

Due to the exploratory nature of some of these objectives and the need to provide in-depth information about this subject, a qualitative focus group approach was taken. A focus group is an informal discussion session in which a limited number of participants (usually between eight and ten) share their opinions, ideas, attitudes, perceptions and experiences on a carefully selected variety of topics. Group dynamics and the moderator's skill at guiding and probing combine to produce meaningful, actionable and often hidden results.

The focus groups were moderated by Anne Jacox of CUE Research Inc. and Luc Durand of CROP Research Inc. Anne developed the discussion guide in conjunction with NFO CFgroup Inc. and CCPE. The report herein is written by her in collaboration with NFO CFgroup Inc.

Exhibit Focus Group Participation	
Location and Date	Number Of Participants
Toronto, March 18, 2003	19
Montreal, March 18, 2003	16
Halifax, March 19, 2003	11
Vancouver, March 25, 2003	17
Total	63

DETAILED FOCUS GROUP RESULTS

Immigrating to Canada

International engineering graduates who participated in this study represented a wide range of countries of origin. Some of the characteristics of those who participated in this study included:

- Many had graduate degrees in engineering (some having Masters and others with PhDs);
- Most had more than five years working experience prior to immigrating to Canada;
- Most had working experience in more than one country prior to coming to Canada; and,
- Most had come to Canada to pursue a better quality of life for themselves and/or their children.

While most study participants had come to Canada as engineers, some had come as refugees and some had come as students.

Information sources outside of Canada

With the exception of the few who had arrived in Canada as refugees, all had sought information prior to coming to Canada. The Embassy was cited as the most frequent source of information, as well as information from friends/relatives who had visited or come to Canada.

Some had sought information over the Internet. Although the Internet is increasingly available, many are not aware of where to look for information. One had printed their immigration application from an Internet source, but found he had printed the wrong application when he went to the Embassy. Many study participants had contacted and had their documents evaluated by CCPE.

One study participant had taken a course in cultural integration in Canada from their home country. Although this was helpful, all felt they had not received enough information about the engineering profession and what they might expect when they arrived in Canada.

"If I had known it was so long and costly, I would have come anyway, but I would have been better prepared." Montreal

The immigration process

Most study participants had come to Canada seeking better opportunities and a better quality of life for their family. Those who had come to Canada to study engineering in a Canadian university seemed to have a problem-free process. All indicated the immigration process was smooth, however time consuming. Many felt the process was aided greatly by their document evaluation by CCPE, clearly stating that they would be considered an engineer in Canada. Although the document also informed them that this did not mean they would be licensed to practice engineering in Canada, most felt assured by the letter they received from CCPE. This letter also contributed greatly to their points required for immigration approval, leading them to believe that Canada wanted and had opportunities for foreign-trained engineers. Some stated the immigration process seemed to be faster due to their document evaluation.

"When I applied for immigration ... engineers are at the top of the list, so everyone thinks that engineers are good in Canada ... when I came here, everything was different ..."

Vancouver – Licensed

"... don't specify clearly what it is they're offering here." Toronto – Unlicensed

Information sources in Canada

Upon arriving in Canada, IEGs sought several sources of information to obtain housing, work, licensing and educational opportunities to improve their cultural integration. Meeting other IEGs and contacting provincial engineering associations are valuable sources of information to new immigrants.

Most of the agencies or learning institutes that were used were discovered by word-of-mouth or through a recommendation from an association. There seemed to be no source that integrated the information required so as to speed up the licensing or cultural integration process. These organizations are very valuable to the new immigrant as they provide an opportunity to network with others in similar situations and a positive environment to pursue future opportunities.

“Learned there was a co-op program free – taught us how to write a resume, how to write letter, cultural trends – basically, how to market yourself.” Vancouver – Unlicensed

Some of the organizations mentioned as helpful included the different provincial engineering associations and various job hunting organizations as well as those listed in the following exhibit.

Exhibit Information Sources			
Toronto	Halifax	Vancouver	Montreal
Immigrant Services Society	MISA	SUCCESS	CAMO SANQI
Balanced Learning Centre			AMPE

“Where I am now, we are 30, but there are hundreds or thousands just like me who don’t have the opportunity I have. There should be more places for them.” Montreal

The licensing process in Canada

Study participants believed that they would be able to gain employment as an engineer upon arriving in Canada. The need to obtain a license to practice engineering in Canada and the process of obtaining the license was a surprise to study participants, particularly in view of the fact that:

Many had worked as engineers in more than one country prior to arriving in Canada, where they had been granted approval to practice engineering by virtue of their education and experience;

In many countries, the degree is considered the license to practice engineering; and, Many had several years of work experience as well as graduate levels of education.

“... working and licensed for 30 years – private practise since 1969 ... licensed in South Africa in mechanical and electrical engineering ... chartered engineer in England ... 1993 to Canada ... learned that all of my qualifications, all of my experience amounted to absolutely nothing ... and I was told I had to write exams ... four years ... whole long process ... learned there was no correlation between immigration and professional engineering requirements.” Vancouver – Licensed

“... at the embassy, if they had gone through the provincial association rules and regulations ... it’s almost like you got cheated into coming here.” Vancouver – Licensed

"You come here thinking that the OIQ is just a basic association where you just pay a fee for your membership and then realize it's far from being a simple formality to get in." Montreal

Frustrations encountered during the process of trying to obtain their license included: Confusion regarding the number of different engineering associations and what the role of each is.

"... why do we have to go to three or four different organizations to practice in Canada? I could walk into the U.K. and start working right away." Toronto – Unlicensed

"... confusion between CCPE and [the] association of each province – which is the one I need – the one from CCPE or provincial association." Vancouver – Unlicensed

The amount of time it takes to become a licensed engineer in Canada was extremely frustrating to most study participants. The process is often delayed by not knowing about the different associations and what their role is, waiting to hear back from associations regarding their document review or interview, and having to write exams.

"... some people just give up ... why would you make it a process of three or four years ... people get discouraged ... bad word of mouth goes back ... it's Canada that's losing." Halifax

"... need to satisfy a lot of requirements, a lot of documents, a lot of hurdles ..." Halifax

"... time lag of two years, then that \$12 at the factory starts looking good." Halifax

"... nobody promised that I would be hired as a civil engineer, but process of becoming a professional engineer is very frustrating ... eight months to get an answer from PEO ... waiting for eight months for a response." Toronto – Unlicensed

The qualifications evaluation at the provincial level is felt to be time consuming, costly and often unfair or inappropriate. Many stated they did not understand the need to write technical exams they had passed several years ago and particularly if the exams were not related to their current field of practice.

"It was the third time in my career I had to take that same exact course. I could select some courses and took those I'm already strong in. I am not learning much." Montreal

"I'm an engineer in every part of the world, except Quebec." Montreal

"I have been a project manager for ten years, and these technical exams are hard on me." Montreal

"... association is very bureaucratic ... have to contact them by letter and every time, it takes a few months to hear back ... told me to fill out two different applications – one for EIT and one for professional engineers – they create two separate files, then they didn't have a complete set of my documents." Vancouver – Licensed

"... still, you have to pay for those exams ... I copy all the books on my own because I couldn't afford to buy them." Vancouver – Licensed

Others felt they were evaluated by engineers who had lower qualifications than their own or did not have any experience in their field of expertise.

"... person they appointed as my examiners didn't have anywhere near my credentials." Halifax

"Education review committee that was structured had nothing to do with my experience." Vancouver – Unlicensed

Those who were "lucky" enough to find work stated the exam process was extremely time consuming, as they worked all day, then came home to study all night, often topics they had not studied for years and were not relevant to the engineering work they were currently specializing in.

"... Romania ... five years – Masters, combines electrical and mechanical at highest levels of theory – designed for Chief Engineer ... they were communist five years, six days a week and many hours a day, then three years working and more exams ... then the revolution came and I was practically bankrupt overnight ... decided to immigrate to Canada ... at Simon Fraser, they were writing exams in second year what we learned in high school ..."

Vancouver – Licensed

"... got the job in my field and now have to pass exams that are not related to my field, they're basic, things I studied ten years ago in university ... why not help me get better in my own field ..." Halifax

"... people who have done studies fifteen years back and have to sit and write exams ... start over ... why would they ask them to come when it's not going to be possible to work as an engineer." Halifax

"... two degrees from India ... came here to be a Ph.D. student, said they'd take me as an MA student ... A's in all five subjects, then go to APENs – said I needed four or five exams and had to submit all course descriptions of course work ... how is your exam going to be different from university courses?" Halifax

Language fluency is an issue for both French- and English-speaking engineers. Many of the FTEs in English-speaking provinces indicated studying for exams and being in courses to help them with their English had helped. One, in fact, felt that a standardized English test should be developed to provide potential employers with assurance that the English of the job applicant is proficient. In Quebec, where a French language proficiency test is required, some indicated irritation at having to pass this exam.

"Language skills – there is no measure in Canada – there is the TSE in the U.S. (Test of Spoken English) ... might help employer gauge CV." Toronto – Unlicensed

"I'm from France, lived my whole life there except for when I got my Master's degree in England, and the OIQ asks me to pass a capacity exam." Montreal

The need for one year of Canadian experience under a licensed engineer was clearly the most frustrating aspect of the process. All study participants stated the need for changes to this requirement or assistance from government or associations in obtaining this work experience, as it is almost impossible to get. Many related stories of sending out hundreds of resumes and rarely getting a response. Employers tell them they are over-qualified (e.g., Ph.D.) or, in most cases, not suitable as they do not have their license.

"... it's very difficult to get Canadian experience ... I have even asked to volunteer, but it's not allowed ... I miss my profession ... if I knew what it was going to be like, I never would have come here." Vancouver – Unlicensed

"Then your confidence is not where it should be ... then people think there is something wrong with you." Vancouver – Unlicensed

"... they welcome you to Canada, they give you the impression that it's easy to get a job." Toronto – Licensed

"If I had been told I was going to come here and work survival jobs for the first four or five years, I don't think I would have come." Toronto – Unlicensed

"... didn't really expect that this year of experience would be a problem ... did get CCPE to look at my papers and did give me a positive outcome, and they were quite clear that it was simply to support the immigration process ... failed to tell me that it is a big problem to get this

one year experience ... not going to get those opportunities I was seeking ... put me back ten to twelve years." Toronto – Unlicensed

"... no equal ground to go and get experience. PEO recognizes qualifications, but employers don't ... when I was working in the States, they didn't ask for U.S. experience ... are they making MP's different in Canada than India?" Toronto – Unlicensed

Foreign-trained engineers who participated in this study were very negative about the process of becoming licensed in Canada and had few positive things to say about what helped them during this process. Several stated that holding the focus groups was positive, as they wanted to be heard and hoped changes might be made as a result.

Several were positive about the provincial associations, feeling the staff was always helpful and encouraging. The law and ethics workshop and exam was also viewed positively in all provinces. Some also mentioned the EIT program, feeling that it might help in their pursuit of a job. However, there seemed to be some confusion about this program, whether it was the right program for some engineers, and whether documents had been assessed accurately.

"... not there to tell you you can't do it, they're there to help you." Vancouver – Licensed

"... workshop was very good ... created confidence." Halifax

RECOMMENDATIONS FROM STUDY PARTICIPANTS

At the end of the groups in Toronto, Halifax and Vancouver, all study participants were asked to write three recommendations to improve the process of becoming a licensed engineer in Canada.

Recommendations were primarily associated with creating a better understanding of what to expect regarding the licensing process in Canada during the immigration process and finding ways of hastening the licensing process, and government involvement in gaining employment in order to get the one-year of Canadian experience.

"I would like to see more personal attention to individual education and experience ... maybe application fee could be increased ... instead of waiting for eight months for an answer."

Toronto – Unlicensed

"I think government has to be involved – aid in helping get jobs – take percent of my money and pay a company to hire someone for six months to a year." Toronto – Unlicensed

"CCPE and Government should be more involved in hiring processes." Toronto – Unlicensed

Some study participants also recommended methods of support from provincial associations that might keep them in contact with their profession, helping them to remain current and helping them to maintain their level of confidence.

"Send the magazine to people at this table who are engineers but not P.Eng. yet." Halifax

"APO should contact incoming engineers – build up confidence – send them a letter – these are the procedures you have to go through." Toronto – Licensed

Demographic Profile	
	Percent Of Total Respondents*
Total – Actual	(47††) %
Age Range:	
19 to 24 Years	2
25 to 34 Years	31
35 to 44 Years	46
45 to 54 Years	18
55 to 64 Years	3
65 Years Or More	–
Gender:	
Male	79
Female	21
Years In Canada:	
Less Than One Year	18
One to Five Years	54
Five to Ten Years	28
Country Of Origin:	
China	15
India	10
Romania	10
Algeria	5
Bangladesh	5
Egypt	5
Mexico	5
Pakistan	5
Columbia	3
Iran	3
France	3
Sri Lanka	3
Ukraine	3
Afghanistan	2
Argentina	2
Bulgaria	2
England	2
Germany	2
Ghana	2
Iraq	2
Jordan	2
Kenya	2
Kuwait	2
Poland	2
Serbia	2
Turkdye	2
Uganda	2
USA	2

* Percentages may not equate to 100 due to rounding.

†† Data based on sample sizes of less than 50 should be interpreted with **extreme** caution.

Questionnaire Results

Recommendations	
Toronto – Licensed	<ul style="list-style-type: none"> • Remove excessive exams, such as advanced math, fundamental principles, etc. • Replace volunteers in the committees of PEO by paid personnel to speed up process of licensing. • Make engineering regulated by government rather than self-regulatory/ bureaucracy (as in U.S.). • Acknowledge of the nature of P.Eng. requirements. • Do something to help new immigrant about the one-year experience, like channels where they can have it and how. • Evaluate the previous experience in a better way according to where we came from. • Provide an extra information to those who apply as an engineer. • Reduce the processing cycle time. • Encourage applicants to enroll in the EIT program. • Evaluate the educational background and theory application skills by interviews, not only exams. • Make new immigrants aware of the need of license. • Make the processing time shorter. • Encourage employers to hire FTEs to meet the one-year requirement for licensure/PEO can provide more programs like OSPE (Pathways). • PEO should embark on getting more and more development construction projects from Canadian government to help engineers work for the projects. • One year Canadian experience – based on interview, having 10 of 15 years engineering experience – people should waive one-year mandatory Canadian experience. • Government regulation should formulate law to have professional engineers in industries to safeguard public interest. Presently most of the industries are running unqualified managers. That would solve P.Eng. to carry out their professional duties for the public safety. • Allowing the emigrant engineers to work under P.Eng. in different companies as co-op basis for one year. • Direct supervision from PEO to the engineers to give the experience about how Canadian engineers work and improving their vocal power. • To support the emigrant engineers to adapt themselves socially. • Allow for engineering title before asking for one year of Canadian experience. • Change the exams system and make it more practical than theoretical. • Reduce the number of required exams when having Masters of Science degree from outside Canada. • It helps if you are informed in advance that to obtain P.Eng. status what are the procedures to go through. • Somehow encourage the incoming engineers to apply for P.Eng. no matter, even you do not have the “Canadian” experience. • Make the qualification evaluation procedure easier and reduce the number of exams, putting more emphasis on the engineering experience rather than on passing basic theories. • Look at education qualifications of applicants hand in hand with local experience gained to shorten licensing process and provide guidelines. • Provide a realistic view of the job market and the common challenges faced when a person is starting the professional life in Canada. This should be explained during the interview process prior to getting accepted as an immigrant. • More funding to programs that help place FTEs in the market place.

Toronto – Unlicensed	<ul style="list-style-type: none"> • If the years of Canadian engineering experience can be shortened to zero, I think that there will be more FTEs can start to apply for the license earlier before they leave their field too long. • Accepting the engineering experience bring from foreign countries providing the evaluation processes are needed. • To test the practical skills of the foreign-trained engineers, can PEO provide some co-op programs to them. The co-op programs (here I mean that PEO works with companies where need engineering skills, providing some basic engineering jobs to those P.Eng. to be). • Immigration after P.Eng. approval. • Funded placement like new employ recruitment programs @ \$7,200. • Funding to following organization must be stopped as they are useless – sill for charge, possibilities prolonged, cost, new Canadian program, working for work. • PEO involved in early stages of immigration process, i.e., guidelines, what skills need to be developed. • Develop Pathway program (a step in the right track). • Immigration Canada advise prospect immigration on which provinces/cities skills are required. • Government should take initiative to help employment of the immigrants. My suggestion is maybe government can take some of the money from the immigrants and pay as a part of the salary in the next 6 months of employment. The other part of the salary should be paid by the company. By this way, the companies will employ because they have to pay less salary. • PEO should handle experience more evenly. • Unified assessment process. • Recognition of foreign licenses. • Recognition of foreign experience. • Reciprocity arrangement with other organizations of engineering council (U.K.). • Only PPE and experience requirement should be post-landing. • Awareness amongst employers. • Link licensing to employer's obligations to accommodate EITs. • How can employment laws accommodate the need for "Canadian experience?" • A database of engineers should be initiated so that the scale of brain waste in immigrants can be formally recognized. • Informal counsel on Canadian standards. • Don't ask Canadian experience. • Language courses/exam. • There should be a government procedure to get so-called "Canadian experience" for foreign-trained engineers. • People are willing to do over volunteers to get through this barrier, but no one is not going to give that for foreign-trained engineers. • More personal attention for applicants. • More thorough assessment of educational background. • Clear explanation about the difference between evaluation of engineering qualifications for immigration purposes and license. • In case of application for jobs the companies in Canada should remove the word "Canadian experience" from their training requirement. • CCPE and Government of Canada should be more involved in hiring processes of Canadian multi-national companies. • Canadian companies should take open door policies (rather say liberal policies) to foreign-trained engineers.
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Halifax – Licensed/ Unlicensed Engineers	<ul style="list-style-type: none"> • The process should depend on what kind of major you will take. For some area, such as IT, the one-year experience is not necessary. • Can this process be taken before we land at Canada, so it will save much time? • The government should put some money on co-op and training for professional, e.g. one-year contract to replace this process. • For higher degree (Ph.D.) waived. • Let the people complete as much of P.Eng. designation process as possible before they land in Canada. For example, writing exams over internet, etc., that would reduce time gap between their landing and the time they get inducted in the system. • Hook them to some engineering related jobs even at minimum wages to get Canadian exposure and Canadian experience. This should be done as early as possible after they land in Canada. • Try to reduce supply and demand gap between engineering jobs and engineers. • If the person has experience in the area of software engineering from an Asian country (India to be precise), the number of years of Canadian experience for getting a P.Eng. should be relaxed. India is known to produce software professionals of high calibre. • The exams must be much more comprehensive that would facilitate the person to be more adjustable to Canadian work environment. • The rules have to be relaxed if the person has good academic standing and the decision has to be made at the level at which the person has worked for an organization. • Shorter experienced year (less than one year) or use the education period in Canada as substitute. • Provide the change to get into the "system", e.g., government provide financial support or encourage company to hire foreigner engineers. • More complete program should be done before landing (e.g., training program, certification process). • Probably the technical exam can be eliminated for those who have more than five years of practical experience (include international) for Bachelor's degree. • Official course description is not required for those who have a North American degree. • Three P.Eng. references need to be considered for those whose company maybe has less than three P.Eng. (for example, a factory). • If anybody completes their Masters of Ph.D. degree from here, then for him/her, the process should be easier. • Immigration facility should be prompt and fast. • Financial problem should be improved for students. As for instance, for foreign students off-campus job should be permitted. • Count foreign experience to the full-time amount. • Ph.D. should be worth two years experience. • Should publicize the process more on web/on university campus. • Trying to get the newcomer in their field to get the experience they need to move on in the system instead of putting them to write so many exams. • Paying more attention to the transcripts and the diplomas translations and course descriptions, which are required anyway and writing those exams. • Facilitate entry into the workforce. • The technical exams are redundant if a person already has a few degrees. • Foreign graduates seeking higher degrees in Canada should not be paying additional fees. • The time period for the award of the P.Eng. should be reduced. • Providing entry-level jobs for applicants without jobs, so as to help them attain the one-year North American experience.
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	<ul style="list-style-type: none"> · Making available all necessary information to immigrant applicants applying as engineers. · Co-op should be organized for graduate students. · CCPE did not accept my local bank money transfer for initial assessment (in 1996). Then I did not come to Canada that time because I started a new job there. Then about four years after, I applied again and sent (transferred) the subject fee the proper way. Payment option with one of the major credit cards may help some candidates. · More co-op programs or activities to the newcomers. Without North American or Canadian experience, to find a job is difficult, without a job to get Canadian experience is impossible. · Secure opportunities for volunteer or low paid positions to the newcomer foreign produced engineers.
Vancouver – Licensed	<ul style="list-style-type: none"> • At the stage of processing application for immigrate to Canada, there should be a process to give clear picture of what the job market, what type of process to follow to become a professional engineer, etc. • At the association level there should be a program to foreign qualified engineers to get one-year local experience to get their P.Eng. status. • There should be an organization which lead professionals to facilitate contacting engineers in their respective disciplines. • No improvements. The registration process with APE is like a natural selection. For some is very easy and hence shouldn't be made easier, for others is very tough, but that's life. • The Association should provide some information about the market of different disciplines, so probably the one-year experience would be easier to fulfill. This is for me the key issue – the one year Canadian experience. The process in my case was very straightforward, having all the information that APEGBC required. So I do not have any other suggestions. • Provide some information and guidelines (APEGBC) for foreign engineers of places where they may receive help and consultations about job experience in Canada or USA. • Provide this information to all immigration offices and organizations to aware engineers about licensing process. • Be more helpful in the process of creating a professional network – professionals who are not members of APEG are having a big problem to accessing this kind of information. • Give more weight to degrees from other countries. If UBC recognizes the degree, APEGBC should also do the same. • With internet, the world has become small. There is plenty of technology flow from developed countries to under-developed countries. Most of the large projects in third world countries are in collaboration with American/European companies. Hence, experience outside America should carry more weight. • Experience of a candidate should be evaluated by prospective employers in B.C. and they should make recommendations to APEGBC. • Change type of exam or/to be more engineer exam. • Make better connection between future P.Eng. and Association. • Provide information about new available job. • Professional evaluation process needs to be reformed. • Networking through the Association needs improvement. • Engineers in private practise (consulting engineers) need to revise their attitude towards their profession and their professional colleagues. • Professional engineering needs to be promoted to the public.

<p>Vancouver – Unlicensed</p>	<ul style="list-style-type: none"> • When the government accepts a professional or independent immigrant, has to recognize their background and experience also to work in Canada. • Canada has to push and support foreign engineers or professionals to be accepted for the local industries and companies. • The government should give priority to those professions who want to take a Masters degree or Ph.D. and facilitate their application and acceptance in their respective program. • If a person is eligible for Canada, give him a Visa with prospect job in Canada. There must not be any question about Canadian experience or continuing education here in Canada. • When the person comes to Canada, there must be an association for immigrants to find a job as soon as possible, without any delay. To continue the education the same level it is only waste the time and very unhelpful for person. • The government of Canada must respect the qualifications of engineers, because they are already educated. There must be an association to have the responsibility to accept the degrees – it doesn't matter from which country even through other provinces. • CCPE cooperates with some professional companies that could accept the immigrant engineers to work for them as volunteers or paying minimum salary. • HRDC spends some funds on professional training programs that emphasize on transferring the oversea's professional knowledge to Canadians practical knowledge. • Government supplies some promotions, such as tax deduction, to the companies that hire the immigrant engineers at the entry level. Give them incentive to let the companies want to hire the people without Canadian experience. • Give the people who want to come here a complete information about what is best for them and what they should expect when they come, like what associations are here to help them find a job or studies suitable for market. • Give the immigrants the chance to work in their fields for a period of time, so they get local experience and gain a stronger resume for their further opportunities. • Decrease the delays of the processes needed to acquire the license, make it more clear and decrease the number of unnecessary steps in the way of getting a license and inform them about the knowledge and requirements they need to gain before coming to Canada. • Take off the role of CCPE in the immigration process as it confuses people in a way that they think they have a great chance to find a job once they are approved by CCPE. Which is far away from reality. • Establish a government body that represents and supports newcomer engineers. It can provide a valuable means in finding them a job related to engineering. • Immigration Canada should help immigrants find volunteer jobs related to their profession. • Engineering associations should spend a bit more time and effort in evaluating foreign engineers. Apparently, they underestimate foreign academic and professional background sometimes. • There must be job-finding clubs specifically for engineers. • Local experience – give us the opportunity to volunteer as an engineer. • Accredited university – try to increase the number of accredited university outside Canada. • Graduated from foreign countries, we need ten years of experience to be exempted from exams. That is possibly not fair. Five to six years may be reasonable. • To get CCPE to work together with the association of Professional Engineers because CCPE approval for the immigration process is very confused.
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	<ul style="list-style-type: none"> • Find companies/employers where the immigrants can volunteer so we could get Canadian experience. • Give some courses (the Association) like technical English, codes (apply to each profession), etc., (even if we have to pay for them) to help the immigrants to get in the labour market. • The license should be only “one” for the whole country. • The steps to apply for this license should be clear and always the “same.” • The experience, if it is over four years, “no” matter from what country, it should be enough to get the license. • I think we need a program as a transition bridge let us experience useful in Canada. • The government may make a policy let local companies accept foreign-trained engineers. • The new immigrant should have the right for volunteer in the local company after they arrive.
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Settlement workers’ perspectives

- One of the most prevalent issues was the immigrants’ assumption that he/she could be an engineer in Canada essentially upon arrival. This common misperception, and associated frustration, is related to immigrants’ misunderstanding of what it meant to receive a permanent residence visa — that it meant an automatic right to be licensed and to work. Many IEGs do not find out about specific requirements for licensure until after they arrive in Canada, and after they have spent some time applying for jobs in their field.
- Getting IEGs together is very empowering for them as professionals, and this contact and support keeps them feeling as though they are part of the larger profession, and gives them something to keep in sight when working toward their certification in Canada.
- A major hurdle that IEGs face is the one-year experience requirement that IEGs must satisfy. This is particularly frustrating for IEGs who either cannot access a job due to their foreign qualifications, or who find out only after they arrive in Canada that this is the case.
- Some IEGs said they fear spending their money they arrive in Canada with and this further motivates them to find a job — any job — quickly.
- There is a tremendous amount of frustration among IEGs who are trying to find a job in a profession that is essentially closed to them without licensure.
- Some IEGs are willing to volunteer services for a short time so that they can list Canadian experience on their resume.
- Often, IEGs will access support services only after all other attempts to become employed in their profession have failed (i.e. they’ve ‘hit the wall’, exhausted their financial resources, etc.).

APPENDIX E

Study of Other Professions

The 10 Canadian licensed professions that were studied were:

Health Professions:

- Medical Doctors
- Registered Nurses
- Pharmacists
- Dentists
- Medical Radiation Technicians/Technologists

Non-Medical Professions:

- Chartered Accountants
- Lawyers
- Actuaries
- Architects
- Veterinarians

The review of non-Canadian jurisdictions was confined to licensing foreign-educated engineers. The jurisdictions examined were:

- United Kingdom
- United States: California, New York, Texas
- Australia
- South Africa

The study focused on the following themes, which were judged most relevant to CCPE and its affiliated constituent associations/ordres:

- What body is responsible for licensing? Is licensing done at the provincial level or the national level? Are there distinct provincial statutes for licensing this profession?
- What body is responsible for assessing educational qualifications?
- What is the role, if any, of the national body in the licensing of foreign-trained professionals or evaluating their qualifications?
- What are the educational qualifications (i.e., university) required for licensure? How are the educational qualifications of a foreign-trained professional evaluated?
- What are the supervised internship (or articling periods) that that are required for licensure? Does this apply in a modified form to foreign trained professionals?
- What is the professional work experience that is required for licensure? How is foreign experience evaluated?
- Are there professional examinations that are required for licensure? Do these apply in a modified form to foreign trained professionals?
- Is there any working relationship between the licensing body and Immigration Canada?
- Approximately how long does it take a foreign trained professional to obtain a license, assuming that his or her educational qualifications and prior professional work experience are satisfactory?
- What are the fees that a foreign-trained professional must pay to be evaluated prior to being licensed? Are there any other fees (or reductions from fees) that apply to a foreign trained professional that would not apply to a Canadian-trained professional?
- Approximately how many foreign-trained professionals make application for licensure? What is the success rate?
- Are there courses or other support programs available to foreign trained professionals to assist them in successfully applying for licensure? If so, what body provides this training or support and what are the costs?
- Are there any reciprocity agreements or mutual recognition agreements that expedite or otherwise facilitate the licensing in Canada of a foreign trained professional?
- Are there any distinct features of the evaluation and licensing process for this profession, or the management of this process, that might be of particular interest to CCPE and its affiliated constituent associations/ordre?

HEALTH PROFESSIONS

Medical Profession

OVERVIEW

In all provinces there are statutes governing access to the medical profession and colleges established for the purpose of licensing. There are *no reciprocity agreements* whereby a licensed medical doctor in a jurisdiction outside Canada is automatically qualified to practice in Canada.

Basic technical qualifications in medical science are determined by the examinations administered by the Medical Council of Canada. Following receipt of a licentiate from the Medical Council of Canada, a foreign trained doctor may then make application for admission to a residency program. Residencies are administered by designated teaching hospitals that are affiliated to one of the recognized medical schools in Canada. The duration of a residency is based on the area of specialization and may run from two to eight years.

Restrictions on access to residencies is the major obstacle to qualification for foreign-educated medical doctors. The number and geographic location of residencies is strictly limited by provincial governments. Several provinces participate in the Canadian Resident Matching Service (CaRMS) which brings together doctors seeking residencies in particular fields with teaching hospital offering residencies in that field. CaRMS administers two “iterations” each year. Except in Quebec, the first iteration is restricted to graduates of Canadian medical schools. Relatively few residencies are available in the second “iteration.” These are typically in under-serviced areas. In 2002, only 83 out of 496 graduates of foreign medical schools who applied to Canadian Resident Matching Service (CaRMS) were successful in obtaining a residency appointment. In some provinces, such as Ontario, after obtaining a licentiate from the Medical Council of Canada, a foreign-trained doctor must also be screened by a separate provincial program before being eligible to apply for a residency.

In recent years, some provinces have instituted carefully screened exemptions from the residency requirement.

Following completion of a residency, a foreign trained doctor must take certification examinations administered by either the Royal College of Physicians and Surgeons of Canada or the College of Family Physicians of Canada. After completion of these examinations, the individual is eligible for licensing by the provincial college.

Competence in English must be demonstrated through TOEFL and TSE scores.⁴⁷ To work as a professional in Quebec, one must have an appropriate knowledge of the French language. Proficiency is recognized if one has:

- Studied for at least three years, full time, in French, at the secondary or post-secondary level
- Passed the maternal French language tests at the fourth or fifth year at the secondary level
- Received, in Quebec, a certificate of secondary studies (as of the 1985–1986 school year)

In the other cases, knowledge of the French language is evaluated through an exam administered by the Office québécois de la langue française. The French competency exam is free. It is a four-part exam which evaluates: verbal comprehension; written comprehension; verbal expression and written expression. A passing grade of 60% is required.

EDUCATIONAL QUALIFICATIONS

The Medical Council of Canada requires a medical degree from a medical school listed in the World Directory of Medical Schools. For persons whose degrees were earned at a non-listed school, there are assessment programs.

RESIDENCY⁴⁸

To be certified by the College of Family Physicians of Canada, candidates must complete a two-year medicine residency at a designated teaching hospital, i.e., a hospital affiliated to a Canadian university with an accredited medical school. For certification by the Royal College of Physicians and Surgeons of Canada, candidates must complete the period of residency prescribed for their area of specialization, typically four or more years.

47 TOEFL: Test of English as a Foreign Language, TSE: Test of Spoken English. Refer to: <http://www.toefl.org/>

48 Residency should not be confused with internship. Internship is part of undergraduate medical training and consists of one-year of clinical experience in a range of practice areas. Following completion of internship and graduation from medical school, a doctor applies for a residency appointment related to his or her preferred area of specialization or for a residency in family practice. Residencies are administered by teaching hospitals affiliated to university medical schools. There is no necessary relationship between the teaching hospital where a doctor completes his or her residency and the medical school from which he or she graduated. Residency training is considered “post-graduate” training, although it is mandatory training to be certified by the Royal College of Physicians and Surgeons of Canada or the College of Family Physicians of Canada.

In Ontario, foreign educated doctors do not have access to CaRMS. Foreign trained applicants can only apply through the Ontario International Medical Graduate (OIMG) Program and the Assessment Program for International Medical Graduates. Both of these programs are funded by the Ontario Ministry of Health. The OIMG screens foreign trained candidates for access to a very limited number of residencies. The Assessment Program provides a carefully screened exemption from the residency requirement, but requires a doctor to work under a restricted licence in an under-serviced area.

In British Columbia, there are three tracks. A candidate who was fully qualified outside Canada and who had practice experience may seek exemption from the residency requirement. In this case, the doctor would be placed on a temporary register by the College of Physicians and Surgeons of British Columbia and would be restricted to working in an under serviced area of the province. Once the applicant has completed the certification examinations of the College of Family Physicians of Canada or the Royal College of Physicians and Surgeons of Canada, he or she will be fully licensed. The second — and more common — track involves a residency. Candidates are eligible for application in the second iteration of CaRMS. The third track is solely for family practice. By invitation, foreign educated doctors may apply to the Assessment Program for International Medical graduates. This is a six-to-eight week clinical evaluation undertaken at St. Paul's Hospital. Successfully evaluated candidates are then admitted to a six-month clinical program and are subsequently eligible to enter a two-year family practice residency program.

There are 13 accredited Canadian postgraduate medical training programs that participate in a Canadian Resident Matching Service (CaRMS). However, some of these programs do not accept graduates of foreign medical schools. With the exception of Quebec, provinces that allow foreign trained doctors to participate in CaRMS only do so in the second round of matching. There are 200 residency positions available in the second round. The second CaRMS iteration consists of residence positions that were unfilled during the first iteration.

PROFESSIONAL WORK EXPERIENCE:

In general, a Canadian period of supervised residency is required. As noted, there are carefully screened exceptions to this requirement.

PROFESSIONAL EXAMINATIONS:

Any graduate of a medical school outside Canada and the US must pass the Medical Council of Canada's Evaluating Examination (MCCEE) prior to starting a residency. As well, foreign trained medical doctors are required to pass the Medical Council of Canada's Qualifying Examination (MCCQE). (This condition applies to graduates of Canadian medical schools also.) After completing a residency, the candidate is eligible to write the Certification Examination of the College of Family Physicians of Canada or the Royal College of Physicians and Surgeons of Canada.

In Ontario, after completing the MCCEE, a candidate must also take the Ontario International Medical Graduate Exam. The top candidates of the International Medical Graduate Exam (around 150) are invited to take the Objective Structure Clinical Exam (OSCE). The top 50 candidates from this exam are accepted into the Ontario International Medical Graduate Program. The OIMG is an intensive academic program with a minimum of 36–48 weeks training. *The candidate must then enter a residency program in Ontario.*

Facility in English is required. In Ontario, the required standard is a score of 580 on TOEFL and 50 on TSE. See note below for French requirements.⁴⁹

GENERAL:

In Ontario, it was estimated that the period to be fully qualified would run from four to nine years, depending on the duration of the required residency. In British Columbia, the qualifying period runs from one to nine years.

Fees for the Medical Council of Canada's evaluating examinations run to \$1,000. In Ontario, tuition for the Ontario International Medical Graduate program runs to \$2,000. Other examination and administrative fees total approximately \$750.

The number of candidates who successfully complete all of the required qualification stages is comparatively small. As noted, in 2002, only 83 of 496 graduates of foreign medical schools who applied to CaRMS were successful in obtaining a residency appointment. (The total success rate may be higher, if it is assumed that individuals may apply in more than one year.) In Ontario, which does not participate in CaRMS, only 50 applicants out of 500–700 are ultimately assigned residency positions. In British Columbia, the ratio of applicants to residency assignments is approximately 10:1.

No special training is available in Ontario to assist candidates in qualifying. In British Columbia, the College offers training that assists candidates in obtaining residency appointments or in securing admission to the assessment program (family practice only). Manitoba offers more extensive training, including a special course in "Canadian Communications for Physicians Trained Abroad." Manitoba also assists with the costs of assessing foreign credentials and experience. As well, candidates can arrange for individualized training programs through the University of Manitoba.

Registered Nurses

OVERVIEW:

In all provinces access to the nursing profession is governed by statute. In some provinces (e.g., Ontario), licensing authority is vested in a college. In other provinces, (e.g. British Columbia and Newfoundland) licensing is performed by a Registered Nurses Association.

The Canadian Nurses Association (CNA) establishes the Canadian Nurse Registration Examination that is used in all provinces, except Quebec. However, competency standards and the evaluation of individual applicants are handled by the relevant provincial college or association. In conjunction with the provincial regulatory bodies, the CNA is in the early stages of formulating an assessment process for persons with foreign credentials.

In nursing, clinical experience is obtained as part of professional training. A recognized training period is one that includes an acceptable clinical component. Regulatory bodies, however, are concerned that clinical training and practical experience be comparatively recent. Consequently, to obtain or maintain registration, a nurse must have recent clinical experience.

49 To work as a professional in Quebec, one must have an appropriate knowledge of the French language.

Proficiency is recognized if one has:

- Studied for at least three years, full time, in French, at the secondary or post-secondary level
- Passed the maternal French language tests at the fourth or fifth year at the secondary level
- Received, in Quebec, a certificate of secondary studies (as of the 1985–1986 school year)

In the other cases, knowledge of the French language is evaluated through an exam administered by the Office québécois de la langue française. The French competency exam is free. It is a four-part exam which evaluates: verbal comprehension; written comprehension; verbal expression and written expression. A passing grade of 60% is required.

A registered nurse (whether Canadian-trained and foreign-trained) can lose registration by being out of the nursing work force for too long a period.

There are no restrictions on the number of nurses who may be registered. An offer of employment is not required.

EDUCATIONAL QUALIFICATIONS

Nursing qualifications have been upgraded in most jurisdictions. Formerly, training in the profession was available through both community colleges and universities. Most jurisdictions now require university training for entry into the profession. Supplementary training is available for nurses with college training. To be registered in a Canadian jurisdiction a foreign applicant must have been recently registered in a foreign jurisdiction and have graduated from a nursing program that is judged to be equivalent to the relevant provincial standard. In Ontario, for example, this requires at least 750 hours of theory covering specified topics and 1200 hours of practice.

PROFESSIONAL WORK EXPERIENCE

Foreign-trained nurses, whose training is acceptable to the licensing body, must have recent practical experience. In Ontario, for example, the requirement is 450 hours of safe nursing practice (i.e., no complaints with the registration authority) during the past five years. In British Columbia, the requirement is 1,125 hours of nursing in the past five years or graduation from a recognized program within the past five years.

PROFESSIONAL EXAMINATIONS

All applicants for registration must pass the Canadian Nurse Registration Examination or its Quebec counterpart. RNs from the United States who passed the State Board Test Pool Examination prior to July 1982 meet the registration examination requirement and do not have to write the Canadian Registered Nurse Examination. In Newfoundland (and other jurisdictions) a nurse may obtain a temporary registration pending completion of the Canadian Nurse Registration Examination within eight months.

GENERAL

In the three provinces examined, there are also “character” requirements. These requirements preclude or jeopardize registration by an applicant with criminal convictions, especially under the Narcotic Control Act or the Food and Drug Act, or a record of complaints with his or her previous registering body.

English language competency is required for all applicants for whom English is a second language. Standards vary somewhat across the three provinces examined, but are similar. In Ontario, the following standards apply:

TOEFL (computer-based test):	203
TOEFL (written test):	537
TSE:	50

Other tests are recognized as equivalent.

To work as a professional in Quebec, one must have an appropriate knowledge of the French language. Proficiency is recognized if one has:

- Studied for at least three years, full time, in French, at the secondary or post-secondary level

- Passed the maternal French language tests at the fourth or fifth year at the secondary level

- Received, in Quebec, a certificate of secondary studies (as of the 1985–1986 school year)
In the other cases, knowledge of the French language is evaluated through an exam administered by the Office québécois de la langue française.

The French competency exam is free. It is a four-part exam which evaluates: verbal comprehension; written comprehension; verbal expression and written expression.

A passing grade of 60% is required.

The College of Nurses of Ontario estimates that six to eight weeks are required to determine eligibility to write the Canadian Nurse Registration Examination. In British Columbia a period of four to six weeks is estimated. Newfoundland requires a minimum of three months to assess an application from a graduate of a non-Canadian nursing school. Fees are generally under \$200.

The College of Nurses of Ontario reported that they receive 2,500 to 3,000 applications per year, of which approximately 65% are successful. The Registered Nurses Association of British Columbia reported that there were 1,100 foreign-trained applicants in both 2001 and 2002. In 2001, 289 applicants were registered. In 2002, the number increased to 417.

Ontario offers a special course for foreign trained nurses, “Creating Access to Regulated Employment (CARE).” This course includes training in English, orientation to Canadian nursing practice and procedures, preparation for the Canadian Nurse Registration

Examination and supervised work placements. The course is voluntary. It is offered in partnership with colleges, universities and hospitals.

Reciprocity agreements are restricted to other Canadian jurisdictions.

Pharmacists

OVERVIEW

In all provinces, access to pharmacy is governed by statute. In some provinces (e.g., Ontario and Alberta), licensing is handled by a college. In other provinces, (e.g., Manitoba) licensing is performed by a professional association.

In April 2000, nine Canadian pharmacy regulatory authorities agreed to adopt harmonized initial licensing requirements by signing the *Mutual Recognition Agreement for the Profession of Pharmacy in Canada*. Quebec, Northwest Territories, and the Yukon are not signatories at this time.

The National Association of Pharmacy Regulatory Authorities (NAPRA) has adopted a National Model Licensing Program, which outlines the harmonized core requirements. The National Advisory Committee on Licensing (NACL) makes recommendations to NAPRA on the maintenance of the Professional Competencies and on the Model Program.

All provinces except Quebec require applicants trained outside of Canada to have a Certificate of Qualification for their educational program from the Pharmacy Examining Board of Canada *prior* to making an application with the provincial licensing body. The Pharmacy Examining Board of Canada evaluates foreign training and also administers a Qualifying Examination.

Varying amounts of clinical experience are integrated into most, if not all, Canadian undergraduate programs. This is reflected in the subsequent post-graduation requirements for supervised clinical experience.

There are no restrictions on the number of pharmacists who may be licensed. An offer of employment is not required.

EDUCATIONAL QUALIFICATIONS

To be registered, a candidate must have completed a university-level degree in a program that is recognized as equivalent to the standard established by the Canadian Council for Accreditation of Pharmacy Programs (CCAPP). Provincial regulatory bodies also have the right to recognize other foreign programs as equivalent.

In Ontario, in addition to holding a degree from a program recognized by CCAPP, foreign-trained applicants for registration must also complete 16 weeks of academic training at the International Pharmacy Graduate Program at the University of Toronto. In 2002, there were 55 registrants in the program.

INTERNSHIP:

Internship requirements vary across jurisdictions. The following table compares requirements in the three jurisdictions examined:

Internship Requirements for Registration as a Pharmacist

	For Canadian Trained Pharmacists	For Foreign Trained Pharmacists
Ontario	12 weeks post-graduation	32 weeks (approximately 1,280 hours) (preceded by 16 weeks of academic training)
Manitoba	24 weeks (which may include supervised undergraduate time)	500 hours (approx. 12.5 weeks)
Alberta	360 hours (approx. 9 weeks)	360 hours (approx. 9 weeks)

Foreign trained applicants are responsible for finding their own internship. It was acknowledged that some foreign trained applicants have difficulty finding a pharmacist who is willing to supervise an internship.

PROFESSIONAL WORK EXPERIENCE

There are no work experience requirements (other than internship) for registration.

PROFESSIONAL EXAMINATIONS

In all three jurisdictions, applicants for registration must pass a jurisprudence examination set by the provincial licensing body and the Qualifying Examination administered by the Pharmacy Examining Board of Canada. U.S. trained pharmacists are exempt from the Qualifying Examination requirement. In addition to these requirements, foreign trained applicants must pass the Evaluating Examination administered by the Pharmacy Examining Board of Canada.

GENERAL

In the three provinces examined, there are also “character” requirements. These requirements preclude or jeopardize registration by an applicant with criminal convictions, especially under the Narcotic Control Act.

English language competency is required for all applicants for whom English is a second language. Standards vary somewhat across the three provinces examined, but are similar. In Ontario, the following standards apply:

TOEFL (computer-based test):	237
TOEFL (written test):	580
TSE:	50
Test of Written English:	5

Other tests are recognized as equivalent. As previously noted, the Quebec government has its own French proficiency tests, which apply to all those wishing to work as professionals in the province.

The Ontario College of Pharmacy estimates that licensing of a foreign-trained pharmacist would take up to three years. The National Association of Pharmacy Regulatory Authorities estimates an average qualifying period of one year.

Document evaluation fees levied by the Pharmacy Examining Board of Canada run to \$460. The Evaluating Examination fee is \$460. Applicants in Ontario who must complete the program offered at the University of Toronto pay tuition charges of \$7,000. Both initial and annual license fees are the same for Canadian-trained and foreign-trained applicants.

It is common for many foreign-trained pharmacists to have their educational qualifications examined prior to immigrating to Canada.

The Ontario College of Pharmacy estimates that approximately half of all practising pharmacists in Ontario are foreign-trained.

There are no international reciprocity agreements. However, such an agreement is currently being negotiated with American regulatory authorities.

Dentists

OVERVIEW

In all provinces, access to dentistry is governed by statute. In most provinces, licensing authority is vested in a college. In some provinces, the provincial dental association fulfills the licensing role. Competency standards are nationally established by the National Dental Examining Board (NDEB) and are recognized in all ten Canadian provinces.

The Commission on Dental Accreditation accredits four- and five-year programs in dental science at Canadian universities and recognizes programs offered by American universities. Graduates from one of these accredited programs may take the qualifying examinations set by the National Dental Examining Board.

Graduates from a non-accredited program — i.e., a program outside of Canada or the United States — must take a two-year Qualifying Program before taking the qualifying examinations administered by the National Dental Examining Board. The Qualifying Programs are delivered by six Canadian universities. Admission to these programs is by

examination. The cost of the Qualifying Program is approximately \$40,000 per year. There are approximately 55 seats available each year in the Qualifying Program.

Quebec does not require dentists trained outside North America to take the Qualifying Program. In lieu of the Qualifying Program, foreign-trained dentists in Quebec are screened by an Evaluating Committee which administers three examinations.

EDUCATIONAL QUALIFICATIONS

To be licensed by a provincial college (or association), a candidate must have completed a university-level degree in a program that is recognized by the Commission on Dental Accreditation. Recognition is currently confined to Canadian and American institutions.

INTERNSHIP

Internship is part of undergraduate training. There are no post-graduate requirements for internship.

PROFESSIONAL WORK EXPERIENCE

There are no work experience requirements for registration.

PROFESSIONAL EXAMINATIONS

Professional competence is determined in accordance with national standards administered through the National Dental Examining Board. Certification by the NDEB is a pre-condition of provincial licensure. The NDEB examinations are both theoretical and clinical. As noted above, except in Quebec, dentists trained outside of Canada and the United States must take a two-year Qualifying Program prior to taking the NDEB examinations. Admission to the Qualifying Program is by the Eligibility Examination. Prior learning assessment is part of this process.

In addition to NDEB certification, in the three provinces studied, the provincial college/ordre also requires courses in ethics and jurisprudence. To some degree, these courses are specific to the jurisdiction in which they are offered.

GENERAL

Outside of Quebec, the evaluation of foreign credentials is undertaken by the universities that administer the Qualifying Program. At the University of Western Ontario, fees for the Eligibility Examination to enter the Qualifying Program are approximately \$600–700. Prior learning assessment charges are \$1,350. Tuition for the Qualifying Program is \$40,000 per year which includes instruments and instrument rentals. In Quebec, which does not require completion of the Qualifying Program, the fee for the evaluation process is \$2,000. The fees for the three examinations total approximately \$8,000. Of 29 applicants in Quebec in 2002, only five completed the examination process successfully.

Language proficiency is established at the university level for admission to the Qualifying Program. As previously noted, the Quebec government has its own French proficiency tests, which apply to all those wishing to work as professionals in the province.

Medical Radiation Technicians

OVERVIEW

The Canadian Association of Medical Radiation Technologists (CAMRT) administers certification for all provinces, except Ontario and Quebec. CAMRT certification is based on completion of a recognized college-level program in medical radiation technology and a CAMRT examination in specific fields of medical radiation technology.

In Ontario the profession is governed by the Medical Radiation Technology Act and the Regulated Health Professions Act. Certification is administered by the College of Medical Radiation Technologists of Ontario. In Quebec, the operative statute is the Radiology Technologists Act. Certification is administered by the Ordre des technologues en radiologie du Québec.

It should be noted that medical radiation technologists are employees. Consequently *there is a significant element of employer responsibility for the quality of the work they perform*. In this respect, the profession is similar to nurses, but unlike medical doctors or dentists. While the majority of pharmacists are employees, they may be self-employed or have sole professional responsibility for operating a dispensary.

EDUCATIONAL QUALIFICATIONS

Medical Radiation Technology programs are taught at community colleges (in Quebec, CEGEPs) and also the Michener Institute in Toronto which is a specialized, college level institution. Programs are two to three years in duration. The national standard is training of approximately 95 weeks of which 52 weeks are clinical.

At the national level, foreign trained medical radiation technologists must be graduates of a program that is recognized as comparable by CAMRT. Additionally, applicants must have a current certificate in cardiopulmonary resuscitation (CPR), level C.

In Ontario, the requirements are similar to the national standard. However, if a candidate is a graduate of a non-equivalent program, the College may grant a temporary certification to enable the applicant to demonstrate competence. An employer also would have to be satisfied with the individual's competence before making an offer of probationary employment. In Quebec, education qualifications are similar to the national standard.

INTERNSHIP

There is no post-graduate internship required in this profession. Clinical experience is part of the training period.

PROFESSIONAL WORK EXPERIENCE

The CAMRT requires a foreign trained medical radiation technologist to provide evidence of one year of clinical experience in the past five years.

In Ontario, an applicant with a temporary certification must provide evidence of having successfully carried out specified procedures. A supervisor's signature is required; the supervisor must be a certified medical radiation technologist. There are no minimum experience requirements, although three months of temporary certification employment is considered a minimum. In Quebec, 140 hours of probationary employment is required.

PROFESSIONAL EXAMINATIONS

The CAMRT administers national examinations in the various fields of medical radiation technology. Ontario applies the same examination. Quebec has a separate examination. The CAMRT examination can be written outside Canada.

GENERAL

CAMRT requires foreign trained professionals to demonstrate language proficiency in English or French. The English language requirements are:

TOEFL (computer-based test):	173
TOEFL (written test):	500
TSE:	40

Note, that these are somewhat lower requirements than in nursing, to which the profession is sometimes compared. Ontario requirements for language competence are the same as CAMRT. Quebec requires successful completion of the French language competency examination of the Office de la langue française. A one-year temporary licence is available to applicants whose French language proficiency is below standard.

There are no fees levied by Colleges for evaluating applicants. CAMRT levies a fee of \$250 for its examination (\$350 if written outside Canada).

Ontario data indicate that in 2002, there were 150 applicants for certification. Of these, approximately 80% were approved to write the CAMRT examination. The CAMRT examination has a success rate of approximately 80%. In Quebec, there are approximately 25 foreign-trained applicants per year, of which about half receive certification.

CAMRT provides study kits to assist in preparing for its examination. Unsuccessful candidates are given an analysis of their strengths and weaknesses. The Ontario government supports a program (“Access and Options”) to assist foreign trained professionals in preparing for the CAMRT examination. In Toronto, the Michener Institute offers CAMRT preparation programs. Similar preparatory programs are offered by CEGEPs in Quebec.

There are no international reciprocity agreements in this profession.

NON-MEDICAL PROFESSIONS

Chartered Accountants

The legal status of the chartered accounting profession differs somewhat from that of other regulated professions. The designation “Chartered Accountant (CA)” is restricted by provincial statutes to persons certified by the relevant provincial licensing body. Certain types of financial audits can be signed only by a person with a CA designation. These are chiefly the financial statements of publicly traded corporations. As a matter of law, publicly traded companies must publish duly audited statements on an annual basis. By policy, public monies must usually be accounted for by statements audited and signed by a person with a CA designation. Ontario has recently amended its *Public Accountancy Act* to allow certain types of financial audits to be signed by individuals with a Certified General Accountant (CGA) designation. This is an entirely different designation and is issued by a separate and unrelated body.

OVERVIEW

The accounting profession is regulated by credentialing bodies in most jurisdictions throughout the world. The recognition of foreign designations therefore depends, in large measure, on how the foreign credentialing body is appraised by the International Qualifications Appraisal Board (IQAB) of the Canadian Institute of Chartered Accountants (CICA). Foreign accounting bodies may be classed as “designated,” “non-designated,” or “not-assessed.” IQAB appraisals are not binding on provincial bodies, but are accepted by most.

The “designated” foreign accounting bodies are:

- Institute of Chartered Accountants of Australia
- Institute of Chartered Accountants of England and Wales
- Institute of Chartered Accountants of Scotland
- Institute of Chartered Accountants of Ireland
- Institute of Chartered Accountants of South Africa
- Japanese Institute of Certified Public Accountants
- Ordre des experts comptables et des comptables agréés, France
- Institute des Reviseurs d’Enterprises de Belgique
- Netherlands Institute of Register Accountants
- State Boards of Accountancy in the United States of America which exempt Ontario CA’s from the requirement to pass the American Institute of Chartered Public Accountants final examination.

Foreign trained applicants with credentials from a “designated” body, who have at least 30 months of acceptable professional experience and who have passed the final examination of their foreign accounting body, are exempted from virtually all courses otherwise required for credentialing, including the CICA’s Uniform Final Examination. They are also exempted from the Canadian work experience requirement. They are, however, required to write the CA Reciprocity Examination (CARE).

The “non-designated” foreign accounting bodies are:

- Institute of Chartered Accountants of India
- Institute of Chartered Accountants of Pakistan
- Institute of Chartered Accountants of Sri Lanka
- Institute of Chartered Accountants of Zimbabwe
- Australian Society of Certified Practicing Accountants
- Hong Kong Society of Accountants
- Philippine Institute of Certified Public Accountants
- Association of Chartered Certified Accountants (United Kingdom, ACCA)
- Institute of Chartered Accountants of New Zealand

Foreign-trained members of “non-designated” accounting bodies may be exempted from most of the courses otherwise required for credentialing. However, persons with credentials from “non-designated” bodies must complete a course in Canadian business law, pass provincial examinations, and also pass the CICA’s Uniform Final Examination. As well, a period of Canadian accounting experience is prescribed (1–2.5 years depending on the jurisdiction).

Foreign candidates with credentials from “not-assessed” bodies are not entitled to exemptions and must complete all of the post-university training and experience of an ordinary Canadian applicant. However, on a case-by-case basis, foreign trained individuals

with credentials from “not-assessed” bodies may receive *ad hoc* exemptions from certain training and experience requirements.

EDUCATIONAL QUALIFICATIONS

The following table compares Ontario’s education requirements in light of the IAQB status of the foreign credentialing body:

Education Requirements for Canadian and Foreign Trained Accountants

Ontario Requirements	Canadian-Trained Applicants	IQAB Appraisal of Foreign Credentialing Body		
		Designated	Non-Designated	Not Assessed
University Degree with adequate coverage of business and finance subjects.	Required	Required, but normally also a condition for credentialing by foreign body.	Required, but normally also a condition for credentialing by foreign body.	Required
17 University Level Courses	Required as part of university degree or as a supplement.	Exempted	May be exempted from up to 16 courses.	Required
School of Accountancy*	Required	Exempted	Required	Required
Five Day Intensive Training	Required	Exempted	Exempted	Required
Examination	UFE	CARE	UFE	UFE

* Six month independent preparatory study, four weeks of training, two examinations.

In British Columbia, educational requirements mirror those in Ontario for applicants with credentials from designated bodies. Applicants with credentials from non-designated bodies or not-assessed bodies must attend the provincial CA School of Business. In Quebec, assessments are made on an individual basis for persons with credentials from either non-designated or not-assessed bodies. Quebec requires all applicants with credentials from non-designated or not-assessed bodies to pass its Professional Education Program.

INTERNSHIP

Canadian applicants for CA credentials are required to have a prescribed period of work experience prior to being qualified. For foreign-trained applicants, these requirements may be the same or differ, depending on the IQAB status of the foreign credentialing body. The following table compares requirements.

Internship Requirements for Canadian and Foreign Trained Accountants

	Canadian-Trained Applicants	IQAB Appraisal of Foreign Credentialing Body		
		Designated	Non-Designated	Not-Assessed
Ontario	30 months which must include 2,500 chargeable hours in various practice areas.	30 months equivalent experience outside Ontario, as assessed by the Institute or 30 months in Ontario in a designated training office.	Same as Canadian-trained applicant, subject to partial exemption.	Same as Canadian-trained applicant, subject to partial exemption.
B.C.	Same as Ontario, except 36 months.	Same as Ontario, except 36 months.	Same as Ontario, except 36 months.	Same as Ontario, except 36 months.
Quebec	24 months which, must include 2,500 chargeable hours in various practice areas	24 months equivalent experience outside Quebec, plus employment in Canada in relevant field.	Same as Canadian-trained applicant – no exemptions.	Same as Canadian-trained applicant – no exemptions.

PROFESSIONAL WORK EXPERIENCE

Membership in a foreign credentialing body is required, as well as at least one year of related professional work. Canadian professional work experience is covered under internship.

PROFESSIONAL EXAMINATIONS

All Canadian trained candidates must pass the Uniform Final Examination (UFE). The CA Reciprocity Examination (CARE), which is taken by candidates with credentials from designated credentialing bodies covers certain key topics of the UFE. Candidates with credentials from non-designated and not assessed credentialing bodies must write the UFE.

GENERAL

Applicants with credentials from “designated” credentialing bodies who also have acceptable experience can obtain their Canadian designation in less than one year. As noted, the only requirement is that such applicants pass the CARE Examination. For applicants with credentials from “non-designated” or “not-assessed” credentialing bodies, the qualification period is approximately two to three years, depending on the jurisdiction.

The fee for the national CARE examination is \$800. In Ontario, a fee of \$480 is levied for assessment for persons with qualifications from non-designated or not-assessed credentialing bodies. An option fee of \$900 is charged for the CARE examination preparation course. Other tuition costs would run to approximately \$2,000–\$3,000, plus the cost of any university courses. Costs in other provinces are somewhat lower.

In 2002, there were 82 candidates who wrote the national CARE examination. The pass rate was approximately 70–80%. Three-quarters of applicants were from Ontario. Annually,

Ontario estimates that it receives approximately 20 applicants from persons with qualifications from non-designated or not-assessed credentialing bodies.

The provincial bodies offer courses to prepare for the national CARE examination, as well as various professional development courses that are also available to qualified members.

Lawyers

OVERVIEW

For the nine common law provinces, plus the territories, the standard qualifying requirements are a university degree in law from a recognized law school, a prescribed period of articles, and completion of the provincial bar admission course and bar admission examinations.

All applicants for admission to the bar in a particular jurisdiction must pass the bar admission examinations required by the provincial regulating body. This requirement applies regardless of where an applicant is from and whether he or she was previously qualified in another jurisdiction. There are no reciprocity agreements.

EDUCATIONAL QUALIFICATIONS

In all jurisdictions a university degree in law is required. A Canadian law degree (LLB) is automatically recognized. An applicant who received a law degree outside of Canada must obtain a Certificate of Qualification from the National Committee of Accreditation (NCA) of the Federation of Law Societies of Canada. The NCA evaluates applicants on a case-by-case basis and may prescribe additional Canadian training. Notwithstanding the general acceptability of a non-Canadian law degree, it is common for the NCA to require additional training:

Additional Educational Requirements for Lawyers whose University Training was Outside Canada

University Degree	Additional Training Required
United States	Applicants from approved law schools in the U.S. are generally asked to complete 30–45 credit hours in a Canadian law school or to write 8 to 10 prescribed examinations.
England, Wales, Australia, New Zealand, West Indies, Hong Kong and Singapore	Applicants are usually required to take 30–60 credit hours in a Canadian law school, if they obtained a Second Division degree or better in a 3 year honours law program following upon an undergraduate degree.
India and Pakistan	Applicants are evaluated on the class of degree and their academic standing. Those with First Class standing from an established University with English language instruction are usually asked to complete an additional 30 credit hours or 8 prescribed examinations and take specific prescribed courses. Applicants with Second class standing will usually be asked to take 60 credit hours in a Canadian common law school or write 10–14 prescribed exams.
Scotland, South Africa, Israel, Philippines and certain others	Applicants are usually asked to take 45–60 credit hours in a Canadian common law faculty if they obtained at least Second Division standing in a 3 year honours law program following upon an undergraduate degree. They may be asked to take 10–11 prescribed examinations.

PERIOD OF ARTICLES

The following table compares articling requirements across the three jurisdictions:

Articling Requirements – Lawyers

	Ontario	British Columbia	New Brunswick
Ordinary Applicants Trained in Canada	10 months	9 months	44 weeks (approx 10 months)
Foreign Trained and Qualified Applicants	Foreign-qualified lawyers with practice experience in common law jurisdictions outside of Canada may be granted a reduction of up to one month for each full year of practice experience to a maximum of 6 months.	Foreign-qualified lawyers with practice experience in common law jurisdictions outside of Canada may be granted a reduction of up to one month for each full year of practice experience to a maximum of 5 months.	Same as for Canadian applicants. No exemptions or reductions.

PROFESSIONAL WORK EXPERIENCE

There are no work experience requirements aside from the period of articles. As noted above, for foreign-qualified lawyers who practised in common law jurisdictions, some provinces permit a reduction in the prescribed period of articles.

PROFESSIONAL EXAMINATIONS

Applicants may write the NCA's "challenge examinations," in lieu of taking additional courses. Aside from this national option, the relevant professional examinations are the bar admission examinations that apply to all applicants for membership to a provincial bar.

GENERAL

English language proficiency is generally assumed, as English is typically the language of instruction in common law jurisdictions. However, a TOEFL score may be required. In all jurisdictions, "good character" is required. This generally means the applicant has had no criminal convictions or disciplinary actions by a regulating body.

In 2001, the NCA received 261 applications for Certificates of Qualification. Of these, three were from Quebec-trained lawyers and 77 were from foreign-trained lawyers (UK: 29, US: 19, India: 10). In Ontario, an average of 15–20 persons apply for admission to the bar after obtaining NCA Certificates of Qualification. In Ontario, the principal obstacle confronting foreign-trained applicants is finding an articling position.

Actuaries

OVERVIEW

A university degree is not required, but is common. Designation as a Fellow of the Canadian Institute of Actuaries is based on work experience and completion of professional examinations.

EDUCATIONAL QUALIFICATIONS

Applicants for fellowship in the Canadian Institute of Actuaries must complete the Practice Education Course (three days) and twelve hours of professional development. Foreign trained actuaries must also complete the Practice Education Course, but may be exempted from some or all of the professional development training.

PROFESSIONAL WORK EXPERIENCE

The Institute applies two standards for work experience — professional experience and Canadian experience. The professional standard is three years of full-time actuarial experience supervised by a qualified actuary whose designation was conferred by an actuarial body recognized by the Institute. This experience may be gained outside Canada. The Canadian experience requirement is 18 months of Canadian actuarial experience within a three-year period prior to making the application. For Canadian applicants, the Canadian experience may be co-terminous with the professional experience. For foreign applicants, the Canadian experience is additional to the professional experience.

Applicants from jurisdictions in which there is no recognized actuarial society, are evaluated on an individual basis. However, the requirements for such individuals will be close, if not identical, to those of an ordinary Canadian applicant.

PROFESSIONAL EXAMINATIONS

Canadian applicants must pass eight examinations prescribed by the Casualty Actuarial Society or the Society of Actuaries. Persons holding designations from actuarial societies in the US, Britain, Scotland and Australia are deemed to be technically qualified and are exempt from these examinations. Actuaries from other jurisdictions are evaluated on an individual basis. For example, a recent applicant from Belgium was exempted from seven of the eight examinations.

GENERAL

For an actuary qualified to practice in a non-Canadian jurisdiction, it usually takes 18 months to qualify in Canada. The success rate of applicants is virtually 100%. The Institute believes that the high success rate arises from the clear statement of requirements, which deters unqualified persons from applying.

The Institute will be introducing an “affiliate” membership category. This is a lower designation than “fellow,” but will allow foreign trained actuaries from unrecognized actuarial organizations to become part of the CIA. The Institute will inform “affiliates” about courses, exams, and experience hours that are required for designation as a “fellow.” The “affiliate” status will assist foreign trained actuaries in obtaining Canadian employment and meeting Canadian experience requirements.

Architects

OVERVIEW

To qualify at the provincial level, an applicant’s educational qualifications must be accepted by the Canadian Architectural Certification Board (CACB). After being certified by the CACB, an applicant must fulfill a supervised internship for a period prescribed by the provincial regulating body. After completion of the internship, an applicant must pass a National Architect

Registration Examination. (Note that Quebec has a separate examination). In some provinces, there are additional requirements, such as an admission course or an oral examination.

EDUCATIONAL QUALIFICATIONS

In principal, an architect may meet the educational requirements through an extended apprenticeship that covers the syllabus of the Royal Architectural Institute of Canada. In practice the apprenticeship route is rarely used. Virtually all architects meet the educational requirements by obtaining an undergraduate degree in architecture from a university accredited by the Canadian Architectural Certification Board (CACB).

Under an agreement with the provincial regulating bodies, the CACB reviews the educational qualifications of foreign-trained applicants. The CACB may accept or reject their qualifications or may direct the applicant to eliminate deficiencies in particular subject areas.

SUPERVISED INTERNSHIP

All provincial associations require an Internship with a minimum of 5,600 hours of Canadian work experience in specified areas of architectural practice. Normally, this internship requires three years to complete. The required 5,600 hours must include a period in the province in which registration is sought. In Ontario, the prescribed provincial experience is 940 hours. Approximately half of the 5,600 hours must be supervised by a licensed architect.

The intern architect is responsible for maintaining a continuous record of work experience in the Canadian Experience Record Book (CERB) while enrolled in the Intern Architect Program (IAP). All documented experience must be certified by his or her employer and a mentor approved by the provincial association. In Ontario, experience is reviewed by the Intern Advisory Team. The intern receives a periodic assessment.

Intern architects must select an approved mentor, who is independent of their employment situation.

Foreign trained architects can apply to the provincial regulating body to have some of their experience outside Canada considered. The regulating body will normally require at least some provincial experience, except where there is reciprocity agreement.

PROFESSIONAL WORK EXPERIENCE

There are no work experience requirements, aside from internship.

PROFESSIONAL EXAMINATIONS

Every provincial association (except l'Ordre des architectes du Quebec) requires Interns to pass the nine divisions of the Architect Registration Examination (ARE) of the National Council of Architectural Registration Boards (NCARB). The ARE is a computerized exam, which can be written after obtaining CACB certification of educational qualifications and confirmation of eligibility by the provincial association. Candidates must have 2,800 hours of recorded experience before writing the Architect Registration Examination.

In addition to the ARE, some provinces also require completion of an admission course. In Ontario, the admission course is mandatory and consists of a week of classes.

There are no exemptions for foreign trained architects, except for those trained in the United States where the ARE examination also applies.

GENERAL

Reciprocity agreements apply to State Licensing Boards in the United States. For foreign trained architects, not from the United States, the period to obtain a licence depends on the amount of foreign experience that is credited. If no experience is credited, the qualification process would take three years. Fees for evaluation of foreign qualifications are \$1,000.

At the national level, approximately 180 foreign trained architects applied for certification of their qualifications in 2002. The CACB does not report success rates.

Veterinarians

OVERVIEW

Although there are provincial statutes and provincial colleges, the Canadian Veterinary Medical Association (CVMA) administers National Board Examinations to all candidates on behalf of the provincial associations and regulatory bodies. Additional provincially administered examinations deal with legal and ethical issues.

On behalf of some, though not all, provincial colleges, the CMVA evaluates the credentials of foreign-trained veterinarians.

EDUCATIONAL QUALIFICATIONS

Applicants for licensing by a provincial veterinary medicine college must have a degree from a school of veterinary medicine. Medical colleges fall into three categories:

- veterinary medical colleges that are accredited by the Council on Education of the American Veterinary Medical Association (CEAVMA),
- veterinary medical colleges that are recognized by the World Health Organization (WHO), but not accredited by the CEAVMA,
- unrecognized veterinary medical colleges.

The training provided by accredited veterinary medical colleges is a six-year program, of which two years are supervised clinical training.

Professional examination requirements are more stringent for applicants with degrees from veterinary medical colleges that are recognized by the CEAVMA, but not accredited. Applicants with degrees from unrecognized medical colleges are not eligible to take the National Board Examinations, although their educational qualifications will be assessed on a case-by-case basis.

SUPERVISED INTERNSHIP

Aside from the two-years of clinical training in the six-year undergraduate program, there are no additional internship requirements.

PROFESSIONAL WORK EXPERIENCE

Professional work experience is not a requirement for licensing.

PROFESSIONAL EXAMINATIONS

Applicants with degrees from medical colleges accredited by the Council on Education of the American Veterinary Medical Association are required to pass parts A and B of the North American Veterinary Licensing Examination. NAVLE is an eight-hour computer-administered examination accessible at many sites through a third party under contract to the

AVMA. Applicants from non-accredited, but WHO recognized veterinary medical colleges, must pass parts A, B and C of the NAVLE and also the Clinical Proficiency Examination (CPE) of the National Board. The CPE is a four-day practical examination. Although exemptions from the CPE are possible, they are rare.

After completing the NAVLE examinations and the CPE, foreign trained (and Canadian-trained) applicants must pass the examination of their respective provincial regulatory body. This examination deals with statutory and ethical matters. The Ontario examination is a two-hour true/false examination.

The NAVLE examinations, it should be noted, apply in both Canada and the United States. The NAVLE examinations replace national examinations that were specifically Canadian.

GENERAL

Applicants for whom English (or French) is a second language must demonstrate satisfactory proficiency. The English language requirements are:

TOEFL (computer-based test): 213

TOEFL (written test): 550

TSE: 50

Fees for the National Board Examinations are \$620. Fees to evaluate documents and qualifications are \$265. The fee for the Clinical Proficiency Examination is \$4,280.

The CVMA receives 275–300 applications from foreign-trained veterinarians per year. For those approved to write the examinations, it takes a few years to pass. Typically, additional study is required. On average, each year 70 foreign-trained veterinarians complete the two examinations and go on to become licensed in a province or territory. The CVMA provides sample questions and a practical exam manual explaining everything they will be expected to do, the marking scheme, skills required, etc. The CVMA also administers a mentorship roster of licensed vets across Canada who are willing to “mentor” applicants taking the CPE examination.

It is common practice for many foreign trained veterinarians to work in a clinic as a veterinary technician while preparing to write the NAVLE examinations and the do the CPE examination.

APPENDIX F

Study of Other Engineering Jurisdictions

UNITED KINGDOM

General Description of Certification

The engineering profession is regulated by 35 professional institutions which govern particular types of engineers. For example, civil engineering (built structures) are regulated by the Institution of Civil Engineers (ICE). There are no licensing requirements in the UK. Rather the 35 professional institutions have charters which give them the exclusive right to confer a designation. In the case of civil engineering, for example, the principal designation is Chartered Civil Engineer. In the main, the various designations conferred by the 35 professional institutions achieve their social and economic standing through voluntary recognition. There is, therefore, no formal legal obstacle to a foreign-trained engineer practising in the UK.

The Engineering Council was established by Royal Charter in 1981. It underwent a name change to the Engineering Council (United Kingdom) on 22 March 2002. It is a consortium of Engineering Institutions in the United Kingdom and continues to run the Register of Chartered Engineers, Incorporated Engineers and Engineering Technicians.

EC(UK)'s focus is on regulation of the profession, but this is achieved through the work of the Engineering Institutions, which undertake the assessments of individuals and of education and training programs. Subject to the licences they hold, the Institutions may place individuals on the Register.

Entry to the Register depends on satisfying the appropriate membership requirements of one of the Institutions. These are based on the EC(UK)'s current Standards and Routes to

Registration. EC(UK) audits, on a regular basis, the application of these Standards by the Institutions.

The Engineering Council is a signatory to the Washington Accord on mutual recognition of academic credentials.⁵⁰

In contrast with the regulatory bodies affiliated to CCPE, the 35 professional institutions that are members of the Engineering Council also confer designations on engineering technicians. For example, in the civil engineering field, the Institution of Civil Engineers also confers the title Engineering Technician (EngTech). Therefore, it maintains a national registry of Incorporated Engineers and Technicians, in addition to Chartered Engineers.

A strong feature of certification procedures in most of the 35 professional institutions is the emphasis on practical experience. Most institutions prescribe a period of structure and supervised practical experience that must cover a range of technical and non-technical skills. For example, the Institution of Civil Engineers requires “management and commercial” experience covering “efficient procurement and management of resources within economic and regulatory constraints to achieve the engineering objectives.” The ICE maintains a registry of approved employers who undertake to structure a recently graduated engineer’s experience in accordance with certain guidelines. The majority of institutions place their emphasis on the quality of practical experience, rather than the duration. Consequently, most institutions do not publish a prescribed period of experience. However, the norm for many institutions is at least four years after completing a MEng degree or equivalent. Graduates with uninterrupted training will usually be eligible for certification at approximately age 31.

In addition to evaluating experience, the professional associations may require additional examinations, a professional interview and a dissertation on a completed project.

The Engineering Council allows candidates to write Engineering Council examinations, in lieu of the MEng educational requirement.

Foreign-trained applicants relate to the UK system in the following manner:

Engineers qualified elsewhere in the EU are generally entitled to practise in the UK by registering with the Engineering Council. The Council has four months to object that an applicant’s training or experience is incommensurate with UK requirements. In general, there is close to full mobility across the established members of the EU. In the case of recent members of the EU, there may be mobility and recognition issues that remain to be resolved.

Engineers who received their academic training from institutions accredited by one of the signatories to the Washington Accord are deemed to have educational qualifications equivalent to those required by the Engineering Council. Designation by one of the 35 professional associations will still depend on an evaluation of practical experience.

50 The following table sets out the signatories to the *Washington Accord*. The *Accord* provides for mutual recognition of educational requirements, not for other licensing or certification requirements.

Country	Signatory Organization	Entry Year
Australia	Institution of Engineers, Australia	1989
Canada	Canadian Engineering Accreditation Board of the Canadian Council of Professional Engineers	1989
Hong Kong	Hong Kong Institution of Engineers	1995
Ireland	Institution of Engineers of Ireland	1989
New Zealand	Institution of Professional Engineers, New Zealand	1989
South Africa	Engineering Council of South Africa	1999
United Kingdom	Engineering Council	1989
United States	Accreditation Board for Engineering and Technology	1989

The Engineering Council is also a participant in the International Register of Professional Engineers which is administered by the Engineers' Mobility Forum.⁵¹ Inclusion in the International Register is administered by the national engineering associations, subject to agreed-upon standards. Among the key standards are seven years of post-graduate experience and two years "in responsible charge of engineering work."

Engineers trained outside the UK may apply to have their experience recognized by one of the professional institutions. For the larger institutions, this evaluation is performed by members of the institution who are resident outside the UK. The ICE, for example, maintains a roster of country representatives.

It should be noted that in the UK the coverage of both technicians and professional engineers by the same professional institution allows that institution to confer a technician designation on a foreign-trained engineer while that individual is obtaining the requisite experience or educational qualifications.

UNITED STATES

Overview

In the U.S., the practice of engineering is regulated at the state level. States differ in the scope of their regulating statutes. It is common for states to restrict only the practice of civil, mechanical and electrical engineering to licensed engineers. A critical difference, however, is that the formal licensing of engineers is carried out by a government-appointed body that is separate from the state society of professional engineers. Qualifications are set out in statute or in regulations to those statutes. It is common for the same statute to regulate land surveying.

As in Canada, admission to the profession at the state level requires:

- completion of a recognized undergraduate engineering program,
- completion of a prescribed period of practical experience,
- completion of professional examinations.

The accreditation of undergraduate engineering programs is administered at the national level by the Accreditation Board for Engineering and Technology (ABET). State licensing boards recognize the ABET accreditation, but may also recognize non-accredited programs. Some state boards will waive or reduce the educational requirement, based on demonstrated experience. Accredited programs may be delivered by colleges, universities and state institutes of technology. ABET is the US signatory to the Washington Accord.

The Engineering Credential Evaluation International (ECEI) of ABET assesses the credentials of engineers educated outside the USA. Degrees covered by the *Washington Accord* receive full credit. Other degrees will receive up to 50% credit.

The National Society of Professional Engineers (NSPE) confers what it terms a "license" on qualified applicants. In actual fact, this "license" has no legal status, but merely recognizes a certain level of competence. In practice, NSPE "licensing" is deemed by many states to meet their experience requirements. The "Engineer in Training" or similar internship programs are administered by the state societies of professional engineers in a manner consistent with national standards. Most state boards recognize completion of the EIT program as

⁵¹ The Engineers' Mobility Forum and the signatories to the International Register are the national engineering organisations of Ireland, UK, USA, Canada, South Africa, Hong Kong, Australia, Japan, Malaysia, Korea and New Zealand.

commensurate with statutorily prescribed experience requirements. This confers a high degree of mobility on recent engineering graduates.

Many state boards use a “credit” system of evaluating candidates in which “credit” is given for both formal education and practical experience. The norm is a four year undergraduate degree from an accredited college or university and two to four years of practical experience. However, the credit system allows for less formal education (or graduation from an unaccredited program) and more experience or, conversely, more formal education (e.g., a co-op program or post-graduate training) and less experience.

For engineers, all state boards use the two written examinations prepared by the National Council of Examiners for Engineering and Surveying (NCEES). Part A (“Fundamentals of Engineering”) is written prior to being admitted to the “Engineering in Training” program. Generally, four or more years of experience are required before taking Part B (“Principles and Practice of Engineering”). State boards may waive the requirement to take these examinations, based on demonstrated experience.

As a practical matter, an engineer licensed by one state board will qualify under another state board provided he or she holds an engineering degree from an accredited program, has passed the NCEES examinations and has at least four years of experience.

California

California’s Professional Engineers Act regulates the practice of civil engineering. In California’s legislation, the term “civil engineering” also includes structural engineering, geotechnical engineering, electrical engineering and mechanical engineering. The terms “professional engineer,” “registered engineer,” “licensed engineer” and “consulting engineer” are restricted to persons who are licensed by the State’s Board for Professional Engineers and Land Surveyors. The Board is a body of the California’s Department of Consumer Affairs.

California’s board requires:

- passing both the NCEES examinations,
- passing a Professional Engineers take-home examination,
- special tests, depending on the area of practice,
- six years of practical experience with four years of credit for completion of an accredited engineering degree and five years of credit for completion of an accredited degree in co-op format. (Post-graduate training is also eligible for up to one year of credit). The effective norm, therefore, is one to two years of post graduation experience.

Engineers with more than 14 years of experience and recognized educational qualifications may be exempted from the first of the NCEES examinations.

Experience gained outside the United States will be considered, provided it is evaluated by a licensed professional engineer in that jurisdiction. A foreign-trained applicant with an unaccredited degree would be required to complete four years of practical experience.

Approximately 100 foreign trained engineers per year are licensed by the state board.

New York

In New York, the Education Law provides for the licensing of 44 professions. These professions are regulated through the Office of Professions and the Board of Regents. The latter appoints State Boards to administer the licensing of each of the 44 professions.

The engineering profession is regulated by Article 145 of the state's Education Law and part 68 of the Commissioner's Regulations. The licensing of engineers is administered by the State Board for Engineering and Land Surveying.

ARTICLE 145 OF THE STATE'S EDUCATION LAW DEFINES THE PRACTICE OF ENGINEERING AS FOLLOWS:

"The practice of the profession of engineering is defined as performing professional service such as consultation, investigation, evaluation, planning, design or supervision of construction or operation in connection with any utilities, structures, buildings, machines, equipment, processes, works, or projects wherein the safeguarding of life, health and property is concerned, when such service or work requires the application of engineering principles and data."

New York's State Board for Engineering and Land Surveying requires 12 years of education and experience as a condition for licensing engineers. Eight years of credit are given for completion of an undergraduate degree in engineering from a program accredited by the Accreditation Board for Engineering and Technology (ABET). A lesser amount of credit is awarded for degrees from unaccredited programs, degrees in related disciplines or for diplomas in engineering technology. To be licensed, engineers must also pass the two NCEES examinations. There are no exemptions.

The State Board also requires licensed engineers to participate in 36 hours of prescribed continuing education on a triennial basis.

Engineers licensed in other US states may practise engineering in New York, but may not present themselves as licensed by New York's State Board. There are no restrictions on companies employing persons to do engineering work if those persons are under the supervision of a licensed engineer.

As in California, the State Board will review a foreign-trained applicant's engineering education and experience and award credit commensurate with that training and experience. There are no exemptions from the NCEES examinations. The *Washington Accord* applies to the recognition of foreign engineering education.

Texas

In Texas, the engineering profession is regulated by the Texas Engineering Practice Act. Licensing is administered by the Texas Board of Professional Engineers. Under the statute, the practice of professional engineering is defined as:

"any service or creative work, either public or private, the adequate performance of which requires engineering education, training or experience in the application of special knowledge or judgment of the mathematical, physical, or engineering sciences to such services or creative work."

Effectively, however, the scope of coverage is limited to structural, electrical and mechanical engineering on any project with a value over \$20,000.

The Texas Board requires 12 years of education and experience as a condition for licensing engineers. As in New York, eight years of credit are given for completion of an undergraduate degree in engineering from a program accredited by the Accreditation Board for Engineering and Technology (ABET). Again, as in New York, a lesser amount of credit is awarded for degrees from unaccredited programs, degrees in related disciplines or for diplomas in engineering technology. To be licensed, engineers also pass the two NCEES examinations as

well as an ethics examination. Exemptions are permitted, based on at least 12 years of prior experience or six years of prior experience and post-graduate training.

The State Board categorizes relevant experience as either “design” or “analysis.” The Board’s information circular states that “the common denominator in all design is the selection and use of recognized engineering principles and methodology to determine a solution to a problem. The final result of design work will almost always be details, plans, or specifications for use in creating a finished product.” The common features of analysis activities include the use of mathematical modeling and acceptable data collection techniques to assess a problem, and the act of making a learned recommendation based on analytical findings. An analysis activity will almost always result in a conclusive report or recommendation.

Engineers who received their education outside the United States, and whose programs are not covered by the Washington Accord, must have their training evaluated. The State Board recognizes a number of private evaluation services. In addition, foreign-trained engineers from non-English speaking countries must also provide evidence of a TOEFL score of 550 and a TSE score of 45.

AUSTRALIA

The Engineering Profession Act, 2000 requires compulsory registration for all engineering practitioners and permits reservation of certain functions for engineers.

The Act (which was adopted in early 2001) gave professionals two years from the date of promulgation before compulsory registration and statutory reservation of certain functions becomes operative.

There are different levels and types of voluntary credentialing. The National Professional Engineers Register (NPER) is a register of independently practicing professional engineers. The NPER is a joint venture of Engineers Australia, the Association of Professional Engineers, Scientists and Managers, Australia (APESMA), and the Association of Consulting Engineers Australia (ACEA). Inclusion in the register indicates that the engineer is judged technically qualified, is experienced, is currently practicing, and is considered up to date in his or her area of practice. The NPER applies only to consulting engineering. Inclusion in the NPER register requires designation as a Chartered Professional Engineer (CPEng) by Engineers Australia.

Professional designations are conferred by the Institution of Engineers, Australia (IEAust). The IEAust was established in 1919 and was granted a Royal Charter in 1938. IEAust now operates within the terms of the Supplemental Royal Charter granted in 1993. In March 2003, the IEA adopted the name, Engineers Australia. Engineers Australia has the exclusive right to confer professional credentials in the engineering field. The levels of credentialing are:

Classification	Credential	Description
Student	StudIEAust	Enrolled in an Engineers Australia-accredited/recognised four-year professional engineering educational program in Australia.
Graduate	GradIEAust	Completion of an Engineers Australia-accredited four-year engineering qualification in Australia, or equivalent.
Members	MIEAust	Minimum of three years acceptable work experience at the level of Professional Engineer.
Fellow	FIEAust	Has followed or is currently following the profession of engineering and either has held a sustained major responsibility in the design or execution of important engineering work or has high education qualifications, has held a prominent position in the profession and made a major contribution to the science or practice of engineering or has had suitable engineering education/training, extensive responsibility in the design/execution of important engineering work and has achieved exceptional eminence in the profession. Designation awarded after assessment by panel of peers.
Chartered Practitioner	CPEng	Completed Stage 2 Competency-Based Assessment comprising: Professional Engineering Practice Report Professional Interview Evidence of compliance with Continuing Professional Development requirements.

Of these designations, CPEng is the most widely recognized credential. In addition to professional engineering designations, Engineers Australia also confers various levels of designations for engineering technicians and technologists.

The CPEng designation is conferred following graduation from an accredited four-year undergraduate engineering program and upon demonstration of an appropriate level of applied engineering experience. Experience is demonstrated by filing an Engineering Practice Report which describes experience in terms of the detailed competency and performance standards set out by Engineers Australia. As a practical matter, an applicant's Engineering Practice Report comprises a series of individual Career Episode Reports. The applied experience includes non-technical responsibilities that can broadly be captioned as engineering management or engineering business practice. Each Career Episode Report must be verified, preferably by a CPEng.

No specific time period is prescribed by Engineers Australia for satisfactory completion of the experience requirements as these requirements are contingent upon the quality of the applicant's experience. Many employers in Australia participate in the Engineers Australia's Graduate Development Program which commits the employer to provide exposure to the responsibilities and roles described in the Engineers Australia's competency and performance standards. Engineers Australia estimates, however, that a minimum of three years is required to meet the competency and performance requirements.

Applicants for CPEng designation must also demonstrate participation in continuing professional education. Following satisfactory completion of an Engineering Practice Report, candidates are interviewed.

Foreign-trained applicants for CPEng designation are subject to the following procedures:

- candidates who have recognized engineering degrees, per the *Washington Accord*, are asked to document their engineering experience in terms of the competency and performance standards set out by the Engineers Australia for all applicants. Experience gained outside of Australia will be considered.
- candidates who do not have a recognized engineering degree, per the *Washington Accord*, are required to file a Competency Demonstration Report on the basis of which their engineering training and experience will be assessed by Engineers Australia. Candidates with training deficiencies will be required to take additional training or may be offered a lesser designation. Candidates with unrecognized degrees are usually required to meet the experience standards of an Australian applicant, viz., experience outside of Australia is not taken into account to the same extent as in the case of an applicant from a jurisdiction covered by the *Washington Accord*.
- fluency in English must also be demonstrated
- professional development undertaken in the past three years must be described. Deficiencies in professional development, which are common for applicants from some jurisdictions, may result in additional Australian experience being required in addition to participation in Engineers Australia authorized professional development.
- The qualifying period for foreign-trained applicants from a *Washington Accord* jurisdiction depends on the quality of professional experience that they can demonstrate in terms of the performance and competency standards of the Engineers Australia. The qualifying period would therefore be immediate to approximately three years. For foreign-trained applicants from jurisdictions not covered by the *Washington Accord*, the qualifying period would typically be three years or more, depending on the quality of prior experience and any additional professional training that is required.

SOUTH AFRICA

At present, no license is required to practise engineering in South Africa. However, the *Engineering Profession Act* makes licensing mandatory for certain civil engineering functions, pursuant to regulations of the Built Environment Councils. Licensing consists of registration by the Engineering Council of South Africa (ECSA).

To be registered as a professional engineer, an applicant must complete a four year undergraduate programme accredited by ECSA. ECSA's accreditation standards are comparable to those of other parties to the *Washington Accord*. ECSA requires three years of post-graduation experience covering a range of applied engineering topics and levels of responsibility. ECSA's policy statement indicates that this experience "must essentially be pre-eminently intellectual, of sufficient variety and not of a routine nature." The experience must also enable the applicant to demonstrate his or her ability to "balance between the technical effectiveness of a solution and acceptable costs, within the available timespan." The ECSA policy statement further describes the requisite experience as follows:

- (a) experience obtained by a person appointed as a manager or as an engineer under certain statutes such as *the Mines and Works Act*, *the Minerals Act*, *the Factories, Machinery and Building Work Act*, etc.

- (b) direct involvement with the safe installation, operation and/or maintenance of machinery or any other key engineering aspect related to one of the above industries.
- (c) involvement in the solution of problems related to the installation, operation and/or maintenance of machinery which require sound engineering judgment and management.
- (d) experience in design, drafting, quality control/assurance, training or manufacturing is acceptable provided that at least two of the required three years' experience is directly concerned with the safe management, installation, operation and/or maintenance of machinery.

Candidates for registration must submit quarterly training reports to their employer-arranged supervisor or mentor. Following completion of the professional experience requirement, a candidate must write the ECSA professional examination. Applicants for specialization in civil engineering are required to write two essays describing the engineering approach to projects.

As in the UK and Australia, ECSA also registers engineering technicians and technologists.

A foreign-trained applicant who graduated from an accredited program under the *Washington Accord* is not subject to detailed evaluation of their qualifications, provided he or she can demonstrate at least three years of post-graduation training and experience.

A foreign-trained applicant with a degree from an unaccredited program may upgrade their education, as directed by ECSA. However, if the applicant has at least 20 years of engineering experience, he or she may take examinations prescribed by ECSA.

Foreign-trained applicants, who have at least three years of acceptable experience, must also demonstrate 8 to 12 months of South African experience. The South African experience must be refereed by at least one registered South African professional engineer.

ECSA estimates that about 70% of applicants from non-*Washington Accord* jurisdiction successfully meet ECSA's registration standards. It should be noted, however, that the number of foreign-trained applicants is extremely small.

APPENDIX G

Interview Results — Employers of IEGs

The purpose of this section is to provide an overview of the experience of Canadian employers with international engineering graduates. The study is based on 21 interviews with engineering managers or human resources managers in companies that employ a minimum of five engineers. The results of the interviews reflect the individual experience of these engineering managers or human resources managers with international engineering graduates over the past three to five years.

In conducting the interviews, the researchers did not explicitly distinguish between international engineering graduates who received their engineering education in jurisdictions that are parties to the *Washington Accord*⁵² on mutual recognition and individuals who received their training elsewhere. Nor did they explicitly distinguish between international engineering graduates who received their training in English and those who were not trained in English and for whom English is a second language. Nevertheless, as anticipated, interviewees immediately made these distinctions. The comments of one engineering manager were representative: “We

52 The following table lists the signatories to the *Washington Accord*. The *Accord* provides for mutual recognition of educational requirements, not for other licensing or certification requirements.

Country	Signatory Organization	Entry Year
Australia	Institution of Engineers, Australia	1989
Canada	Canadian Engineering Accreditation Board of the Canadian Council of Professional Engineers	1989
Hong Kong	Hong Kong Institution of Engineers	1995
Ireland	Institution of Engineers of Ireland	1989
New Zealand	Institution of Professional Engineers, New Zealand	1989
South Africa	Engineering Council of South Africa	1999
United Kingdom	Engineering Council	1989
United States	Accreditation Board for Engineering and Technology	1989

do not regard engineers from the U.S. or the UK as foreign trained.” Thus, we have reason to believe the findings from this study are chiefly relevant to the career challenges faced by engineers who received their training in Asia, Eastern Europe, or Latin America.

It must also be stressed that the interviews conducted for this study should not be equated with a survey. The interviewees were randomly selected, but the interview panel was not of sufficient size to make this study equivalent to a survey. Nevertheless, there are a number of findings that were broadly confirmed by all (or virtually all) interviewees. These findings may suggest measures that could assist international engineering graduates in pursuing their professional careers in the Canadian regulatory context.

The selection of companies reflects the settlement patterns of recent immigrants. Table No. 1 summarizes the sectors and regions represented by the interviewees:

Table No. 1
Distribution of Companies Participating in Interviews

	Utilities	Consulting	Manufacturing	Total
Atlantic	2			2
Quebec		2	2	4
Ontario	1	2	10	13
Prairies			1	1
B.C.			1	1
Total	3	4	14	21

The Interview Protocol is attached at the end of this appendix.

In total, the 21 interviewees who participated in the study had direct experience hiring or managing approximately 450 international engineering graduates over the past three to five years. The vast majority of these engineers received their engineering education in jurisdictions that are not party to the *Washington Accord*. For most of these individuals, English was a second language. Table No. 2 summarizes the number of times a country was mentioned as the country-of-origin for international engineering graduates.

Table No. 2
Number of Time Specific Regions or Countries-of-Origin were Mentioned by Interviewees in Reference to International engineering graduates

Region or County of Origin	Mentions
Eastern Europe	11
UK	9
Other East Asia, excl Singapore, HK	7
Middle East/North Africa	7
South Asia	5
China	3
Western Europe	4
US	4
Latin America	2
Hong Kong	3
Japan	2
Singapore	2
Africa	1

INTERVIEW PROTOCOL

1. Over the past 3–5 years, very approximately how many international engineering graduates reported to you?
2. Where did these international engineering graduates receive their university training?
3. In your company, do international engineering graduates generally work at the same level as Canadian-trained professional engineers or are they more likely to work at technician/technologist level?
4. In comparison with Canadian-trained professional engineers, how would you evaluate the international engineering graduates' knowledge of engineering theory?
5. In comparison with Canadian-trained professional engineers, how would you evaluate the international engineering graduates' practical experience in solving relevant engineering problems?
6. In comparison with Canadian-trained professional engineers, how would you evaluate the international engineering graduates' ability to work with other members of the engineering team?
7. In comparison with Canadian-trained professional engineers, how would you evaluate the international engineering graduates' knowledge of Canadian (or North American) business practices?
8. In comparison with Canadian-trained professional engineers, how would you evaluate the international engineering graduates' ability to explain engineering problems and solutions to non-technically trained persons?
9. In comparison with Canadian-trained engineers, how would you evaluate the international engineering graduates' interest in pursuing additional technical training?
10. What additional training, if any, do you think would be most relevant to international engineering graduates to enable them to advance their career in Canada in the engineering profession?

