



## SUBMISSIONS OF THE COUNCIL FOR ACCESS TO THE PROFESSION OF ENGINEERING

On

*Recognition of the International Experience and Credentials  
of Immigrants with Engineering Backgrounds*

To the

## CROSS-CANADA HEARINGS OF THE HOUSE OF COMMONS STANDING COMMITTEE ON CITIZENSHIP AND IMMIGRATION

Public Hearings

Bill C-18, Citizenship of Canada Act

Addressed to:

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and Immigration, (613) 995-8525, and the Honourable Andrew  
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## **INTRODUCTION**

1. The Minister of Citizenship and Immigration has indicated that new citizenship legislation will be tabled in Parliament in early 2005 and that it will be referred to the House of Commons Standing Committee on Citizenship and Immigration after first reading. A Government of Canada press release dated 20 December 2004 offers an opportunity for Canadians to comment on citizenship issues through submissions to Cross-Canada Hearings of the House of Commons Standing Committee on Citizenship and Immigration.
2. CAPE, the Council for Access to the Profession of Engineering (formerly the Coalition for Access to Professional Engineering) was launched on 16 October, 2004 as a membership-based organization that aspires to serve the collective interests of immigrants who have engineering backgrounds and who have chosen to settle in Ontario. CAPE currently hosts a database of over 800 immigrants with engineering backgrounds. In addition it has built up a coalition of some 20 ethno-cultural associations having an estimated combined membership of ten to fifteen thousand immigrants with engineering backgrounds. CAPE is making this submission on behalf of this fraternity.
3. According to John Shields<sup>1</sup>, foreign migrants to Canada enjoyed a considerable record of successful integration into the labor market until the 1980s when this pattern began to reverse. Immigrant earnings have since fallen below those of the native born population, while unemployment, underemployment and poverty levels in this group have increased. This despite the fact that immigrant English and/or French language skills upon arrival have been increasingly better and their education exceeds that of the native-born population. Engineers and engineering technicians and technologists make up 75% of the occupational grouping as shown in the following profile:<sup>2</sup>

Engineers	60%
Engineering Technicians/Technologists	15%
Accountants	10%
Healthcare Providers	9%
Teachers	2%

4. The key purpose of the reform agenda for the Citizenship Act has centered on production and deliberations of draft citizenship legislation between 1998 and 2003, designed to incorporate into this Act, the four major developments since the act was last reformed in 1977. These developments include the Charter of Rights and Freedoms; the changing concept of citizenship; the changing nature of citizenship regimes in other countries; emerging realities of immigration and refugee flows, migration patterns of the Canadian; and the changing realities of national and international security. Focusing on these same developments, CAPE raises a number of specific concerns that relate to immigration and recognition of the international experience and credentials of immigrants with engineering backgrounds
5. On behalf of immigrants with engineering backgrounds CAPE would like to record its appreciation for this opportunity to have our voice heard in a matter so closely related to our experience, with respect to the recognition of engineering credentials and international experience that members of our fraternity bring to Canada. We have structured this submission to fit in with your committee's vision to '... see a process in place whereby immigrants will be able to obtain the Canadian equivalency for their professional and trade credentials.'

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<sup>1</sup> No Safe Haven: Markets, Welfare, and Migrants , John Shields January 2003 CERIS Working Paper No. 22 Series Editor for 2003 Michael J. Doucet, PhD

<sup>2</sup>Lindy Walsh (2004), The facts: A Glance at the Numbers The University of Western Ontario - Faculty of Information and Media Studies <http://www.fims.uwo.ca/newmedia/immigrants/facts.htm>

## **RATIONALE FOR SUBMISSION (ON-GOING CAPE SURVEY )**

6. An on-going survey by CAPE of immigrants with engineering backgrounds reveals that out of a representative sample of 802 immigrants drawn from 61 countries and residing across Ontario:
- 54% are not working, 30% are working in a field that does not relate to their field of training and only 16% are employed in an engineering related job;
  - Over 50% of the sample have more than ten years working experience in engineering;
  - 95% of the sample holds at least a Bachelors Degree and more than 29% of the sample hold a Masters Degree or higher qualification; and
  - Nearly 60% of the sample arrived in Ontario more than two years ago.

### **CAPE submits that:**

***The majority of immigrants with engineering backgrounds arriving in Ontario are not able to integrate into the engineering workplace and indeed participate in any meaningful employment in Ontario. Our findings indicate that due to a number of systemic barriers centering on the lack of recognition of foreign credentials and experience, that the current immigration policy fails to address, there is inequitable immigrant access to regulated professions such as engineering, after their arrival in Canada.***

## **OBTAINING CANADIAN EQUIVALENCY FOR FOREIGN PROFESSIONAL CREDENTIALS.**

7. The licensing process for engineering in Ontario comprises of two parts<sup>3</sup> (see Appendix 1):
- Academic Review
  - Experience Review
8. The engineering academic review process relies totally on the principle of equivalency. The process for establishing equivalency is lengthy, taking up to two years for some applicants. It involves an individual-by-individual equivalency assessment in an underdeveloped institutional structure and a database of accredited foreign engineering schools and universities that is very limited. Its development has not been able to keep up with the tremendous increase in diversity that has taken place in immigration since 1967 when the skills-based point system was introduced, in spite of huge strides in development of information technologies in the same period. Neither do initiatives to develop tools to facilitate foreign credentials recognition, such as the Mutual Recognition Agreements which mostly include only the 'traditional' immigrant source countries (such as United Kingdom, USA, Australia, New Zealand, South Africa and perhaps exceptionally Hong Kong) lend themselves to recognition of foreign credentials from 'non-traditional' sources such as India, China, South America, Eastern Europe, Africa and countries of the Russian Federation, from which majority of skilled workers originate following the demographic shift since the mid 1980s.

### **CAPE submits that:**

***The academic review process for immigrants with engineering backgrounds is lengthy and time-consuming because the institutional framework supporting the equivalency-based assessments for foreign academic qualifications, especially from non-traditional source countries, is not geared to keep up with the enormous increase that has occurred in immigrant diversity since the mid 1980s. Consequently immigrants with engineering backgrounds are at present placed in a 'disadvantaged' position in getting their credentials assessed for licensure vis-à-vis Canadian graduates. Immigration policy has***

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<sup>3</sup> Licensing Guide and Application for Licence - *How to apply for a Professional Engineer Licence in Ontario*. Published by Association of Professional Engineers of Ontario, Professional Engineers Ontario Licensing. <http://www.peo.on.ca/>

***failed to take this into consideration in the settlement process. How is an immigrant with an engineering background to be supported through the period of disadvantage that he/she has to face in having credentials assessed and bridging the gaps to establish equivalency?***

9. Further as explained in Appendix 1 while the academic review process puts the immigrant at a disadvantage, it at least has the merit of an established equivalency measurement tool in the form of public documentation of the requirements and of examinations, both confirmatory and specific. The same cannot be said for the experience assessment since no clear definition of equivalency has yet been established for the 12-month Canadian experience requirement that cannot be satisfied without securing employment, as it cannot be substituted through a Canadian postgraduate degree. An attempt to address this problem led to the introduction of the 'provisional license' for immigrants with engineering backgrounds but this is unfortunately rendered ineffective due to limitation clauses attached to it (see CAPE's submission to PEO contained in Appendix 3). Obtaining the twelve month Canadian experience has been cited as the major obstacle that immigrants with engineering backgrounds face in accessing the engineering profession in Ontario. The immigrant with an engineering background also cannot effectively appeal against the review of his/hers experience assessment in the absence of equivalency criteria.

**CAPE submits that:**

**In the absence of equivalency criteria, the fulfillment of the 12-month Canadian experience requirement becomes a reflection of the personal competence and global knowledge (or not) of the PEO licensed individual in Ontario, making this a highly subjective procedure that is effectively locking out immigrants with engineering backgrounds from accessing their profession in Ontario. Federal immigration policy needs to reflect the implications of this provincial experience requirement that places the immigrant at the mercy of the previously licensed PEO engineer in Ontario.**

10. Immigrants with engineering backgrounds are also limited to referring to themselves as 'engineering graduates' instantly losing all their experience credentials due to the 'reserved title' provision in the Professional Engineering Act of the term 'professional engineer' and even 'engineer' in certain cases. CAPE fails to understand the basis upon which the immigrant who is referred to and internationally accredited as an engineer through such titles as 'Registered' or 'Chartered' Engineer or other national and inter-continental titles ceases to have the right to retain the occupational title of Engineer upon landing in Canada.

**CAPE submits that:**

***The impact of time-consuming academic accreditations without any external support, subjective experience assessments and reserved titles is to close avenues of accessing engineering employment in Ontario to highly skilled internationally trained 'engineering graduates' -so called due to the 'reserved title' provision in the Professional Engineering Act of the term 'professional engineer' and even 'engineer' in certain cases - while further exacerbating the negative impact on their professional life and reputation. Unless federal immigration policy is able to address these provincial tendencies, the vast majority of immigrants with engineering backgrounds coming to the Province of Ontario are faced with the sure death of any aspirations they may have of practicing engineering in this province. In which case, the immigration process has an obligation to so inform the prospective immigrant with an engineering background.***

11. In concluding this section of our submission, CAPE would like to suggest that a clearly defined experience equivalency criteria and recognition of the irrelevancy of reserved titles would go a long way in opening the doors of the engineering profession to immigrants.

## LABOUR MARKET INTEGRATION

### ***Oversupply of Engineers***

12. Knowledge-based occupations saw large increases in permanent immigration to Canada from the mid-1980s until 1997. During this period, permanent immigration increased fifteen-fold among computer scientists, ten-fold among engineers, eight-fold among natural scientists, and four-fold among managerial workers.<sup>4</sup> About 28,000 immigrant engineers arrived in Ontario from 1994 to 1997. PEO has not addressed the issue of supply and demand of engineers in Ontario, rightly considering this to be outside of its regulatory mandate. Pat Quinn, the President of PEO however, in his 2000 presidential address recommended<sup>5</sup> that one of the first tasks of the then proposed new advocacy body for the profession (known as the Ontario Society of Professional Engineers or OSPE) should be to establish data processes to track the demand and supply of Ontario's professional engineers, so that it can enter the debate on immigration policies with the federal government on the basis of sound information.
13. OSPE, has begun to take up this challenge in an open letter<sup>6</sup> dated March 18, 2004 addressed to The Right Honorable Paul Martin, Prime Minister of Canada in which OSPE states:

'Taking the year 2001 as an example, about 10,225 internationally educated engineers settled in Toronto alone – a number greater than Canada's entire graduating class of engineers combined, in a city with only 17% of Canada's jobs! According to data from Citizenship and Immigration Canada, engineers represent 70-80% of all the regulated professionals immigrating to Canada. This was before the 2002 reforms to the *Canadian Immigrant and Refugee Protection Act*, which removed any notion of demand matching controls for immigration. Combined with a jump in university engineering enrollments to take care of the "double cohort" in Ontario, the IRPA changes ensure that the supply of engineers will likely continue to outstrip demand for the foreseeable future.'

#### **CAPE submits that:**

**Future immigration policy for skilled workers should be developed in consultation with the Federal Government and post-secondary education institutions, provincial governments, professional self-regulating bodies and employers in Canada. Until this is achieved, immigrants with engineering backgrounds should have a negative point allocation to indicate the poor employment prospects they are likely to face in Ontario and/or Canada during periods of predicted oversupply of engineers in Ontario.**

### ***Institutional and Stakeholder Disconnects***

14. According to the Conference Board of Canada<sup>7</sup>
- Gaining accreditation for employment in Canada means the immigrant with an engineering background is dealing with no fewer than four major institutional stakeholders: post-secondary education institutions, provincial governments, professional self-regulating bodies and employers.

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<sup>4</sup> Statistics Canada (2000), Brain Drain and Brain Gain, The migration of knowledge workers into and out of Canada, The Daily, Wednesday, May 24, 2000. <http://www.statcan.ca/Daily/English/000524/d000524a.htm>

<sup>5</sup> Pat Quinn, Year 2000: A tide in flood! Engineering Dimensions, January/February 2000

<sup>6</sup> [http://www.ospe.on.ca/pdf/OverSupply\\_of\\_Engineers\\_PM\\_Letter.pdf](http://www.ospe.on.ca/pdf/OverSupply_of_Engineers_PM_Letter.pdf)

<sup>7</sup> Michael Bloom and Michael Grant, *The Economic Benefits of Recognizing Learning and Learning Credentials in Canada*, A Conference Board of Canada publication from the Policy, Business and Society Division. Vice-President Gilles Rhéaume Associate Director, Project Development Michael R. Bloom

- Too often, accreditation assessments are made on the basis of imperfect information regarding the market value of professional credentials and involve non-standard methods of evaluation.
- The magnitude of the immigrant accreditation problem has compelled European countries, Australia and the United States to legislate new standards for occupational regulation, to review policy guidelines on certification, licensing processes and professional training programs, and to create policies to deal with international accreditation. Their policies have led to new bilateral and multilateral national agreements, rules for recognizing diplomas, and establishment of information networks on the international standards for certification.
- Canada lags in the scale and breadth of its solutions to this problem. Nor has it fully integrated its learning recognition strategies with its overall strategy for immigration into Canada. There are no national standards for evaluating, creating and transferring prior learning credentials between jurisdictions, education institutions and workplaces.

15. Based on the findings of the Conference Board of Canada<sup>3</sup>

**CAPE submits that:**

**Immigrants with engineering backgrounds are the tragic and innocent victims of structural, process, institutional and policy disconnects between the Federal Government and post-secondary education institutions, provincial governments, professional self-regulating bodies and employers in Canada. It is time that immigration policy introduces mechanisms to create 'connects' between these stakeholders while adapting its point system to ensure that immigrants with engineering backgrounds are fully sensitized to the 'disconnect' situation before they choose to immigrate to Canada.**

16. Options available for Federal and Provincial governments, educators and employers that can help overcome the barriers and obstacles facing immigrants with engineering and other professional backgrounds and that need to be reflected in the immigration act include mandating:

- A review of the existing capacity and structure of regulatory and policy instruments for credential recognition and diversity provisions and principles laid out in the Charter of Rights;
- Creation of new institutions, techniques and tools that promote objective equivalency criteria for review of immigrant credentials and experience especially of those from non-traditional source countries;
- Upgrading the institutions to keep up with changes in diversity, information change and knowledge development in engineering and other professional workplaces;
- Creating institutions to recognize the centrality of diversity and globalization in immigration;
- Employer engagement in providing opportunities to access 'Canadian Experience', and
- Streamlining Canadian credential evaluation experiences with traditional sources (European countries, Australia and the United States) and non-traditional source countries.

## **APPENDIX 1 - ENGINEERING REGULATION**

### **Academic Accreditation**

Engineering is a regulated profession in Canada. The **Professional Engineers Act** R.S.O. 1990, CHAPTER P.28 under clause 12 states that:

*12. (1) No person shall engage in the practice of professional engineering or hold himself, herself or itself out as engaging in the practice of professional engineering unless the person is the holder of a licence, a temporary licence, a provisional licence or a limited licence. R.S.O. 1990, c. P.28, s. 12 (1); 2001, c. 9, Sched. B, s. 11 (16).*

*No person shall offer to the public or engage in the business of providing to the public services that are within the practice of professional engineering except under and in accordance with a certificate of authorization. R.S.O. 1990, c. P.28, s. 12 (2).*

Licensing of Engineers in Canada is a Provincial responsibility. Professional Engineers Ontario (PEO) regulates engineers in Ontario. Under *R.S.O. 1990, c. P.28* in addition to the Professional Practice and Ethics Examination there are two parts to this licensing process<sup>8</sup>:

- Academic Review
- Experience Review.

As regards academic review, under **subsection 33(1) of R.R.O. 1990, REGULATION 941 amended to O. Reg. 13/03** made under this act it is stated that:

*The applicant shall demonstrate that he or she has obtained,*

- i. a bachelor's degree in an engineering program from a Canadian university that is accredited to the Council's satisfaction, or*
- ii. Equivalent engineering educational qualifications recognized by the Council.*

The academic review process therefore relies totally on the principle of equivalency.

### **Experience Review**

As regards the experience review, under **subsection 33(1) of R.R.O. 1990, REGULATION 941 amended to O. Reg. 13/03** made under this act it is stated that the applicant shall demonstrate that he or she has had 48 months of experience in the practice of professional engineering that, in the Council's opinion, provides sufficient experience to enable him or her to meet the generally accepted standards of practical skill required to engage in the practice of professional engineering including the requirement<sup>9</sup> that the applicant :

*'...must acquire at least 12 months of acceptable engineering experience in a Canadian jurisdiction under a licensed professional engineer (P.Eng). This experience must be in addition to that obtained at the pre-graduation stage and/or toward a postgraduate degree'*

The effect of not allowing the immigrant with an engineering background to obtain the twelve month Canadian experience through pre-graduation or postgraduate degree programs forms the basis of our recent submission to the Ministry of Training Colleges and Universities (See Appendix 2)

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<sup>8</sup> Licensing Guide and Application for License - *How to apply for a Professional Engineer License in Ontario*. Published by Association of Professional Engineers of Ontario, Professional Engineers Ontario Licensing. <http://www.peo.on.ca/>

<sup>9</sup> Guide To The Required Experience For Licensing As A Professional Engineer In Ontario Published by Association of Professional Engineers of Ontario Revised January 2002



While the academic credentials process puts the immigrant at a disadvantage, it at least has the merit of an established equivalency measurement tool in the form of public documentation of the requirements and confirmatory and specific examinations since:

*'The ARC (Academic review committee) may prescribe a technical examination program, if it determines that an applicant's academic preparation does not meet PEO's established standards.'*<sup>1</sup>

The same cannot be said for the experience assessment since no clear definition of equivalency has yet been established. This is complicated by the fact that three years of international experience is recognized but four years cannot be. To further downgrade the situation the fact that the 12-month Canadian experience requirement cannot be satisfied without securing employment or substituted through a Canadian postgraduate degree means that, effectively, the immigrant with an engineering background is totally at the mercy of those who have been licensed by PEO previously.

To complicate the acceptance of the three year international/foreign experience PEO has introduced the 'provisional license' which is rendered ineffective due to limitation clauses attached to it (see CAPE's submission to PEO contained in appendix 3)

All regulations that are legislated should have their standards, requirements and norms systemized and documented with no room left for individual decisions that would create ambiguity. The criteria for licensing of professions should be defined by the professional and technical requirements and not defined by how it is practiced in a particular location other than to adapt the overall body of knowledge in that profession to the location wherever it is in the world.

The fulfillment of the 12-month Canadian experience becomes a reflection of the personal competence and global knowledge (or not) of the PEO licensed individual. This is a highly subjective procedure leaving room for the creation of ambiguity in the licensing process. Immigration policy should address this issue.

As regards Engineering licensure in Ontario;

- The requirement for education through its educational accreditation system is documented and public; and
- The requirement for experience through its experience requirement system is documented and public for the three of the four-year requirement. The fourth year requirement for academically accredited immigrants is termed as 'Canadian Experience' and defined as that which one will acquire under a Professional Engineer (P.Eng.) licensed by PEO and certified by him/her/it.

'Canadian Experience' is not defined publicly and therefore lacks criteria against which to appeal any decisions arising out of it placing the immigrant with an engineering background in a totally untenable position (see the CAPE submission to the George Thompson Commission contained in Appendix 4).

The Regulatory process is left to ambiguity through the "Canadian Experience" requirement and any appeal against it has to be through legal or human rights challenges outside of the regulatory framework. Immigrants with engineering backgrounds are attracted to Canada because of the guarantees afforded to them by the Canadian Charter of Rights but are placed in the unenviable position of having to seek application of this legislation after immigration.

Instituting the requirement of 'Canadian Experience' without it being systemized, documented and made public in a self regulatory surrounding can lead to empowering the professional engineer in controlling who can participate in the profession and hence lead to anti-competition.

Immigration policy is unable to acknowledge these provincial considerations because immigration falls under a Federal mandate.

### **'Reserved' Titles**

CAPE fails to understand the basis upon which the immigrant who is referred to and internationally accredited as an engineer through such titles as 'Registered' or 'Chartered' Engineer or other continental titles ceases to have the right to retain the occupational title of Engineer upon landing in Canada.

CAPE is faced with the following questions?

- Where is the objectivity of the highly subjective experiential assessment?
- How fair is it to assess an individual when there is little comparable knowledge of that individual's academic background, and even less of the full extent of that individual's local and global experience?
- How transparent a process is it when the experience equivalency criteria are so ill-defined?
- How does the 'reserved title' affect regulation and the standards of Engineering Practice in Canada since one cannot practice professional engineering in Canada without a license? and;
- Does the effectiveness of this process lie in its ability to run a 'closed shop' – closed to highly skilled immigrants with engineering backgrounds that is?

