

# Mentoring and Training of Internationally Trained Geoscientists: A Professional Responsibility of the Geoscience Community

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## Summary

Thousands of trained and educated professionals immigrate to Canada every year with the intentions of building a better life, advancing their careers, and contributing to the Canadian economy. At the same time, Canada's population is aging, people are retiring earlier than ever before, and job opportunities in highly skilled occupations are growing faster than the economy-wide average. All of these trends are expected to continue into the future. This means that Canada will have an increased reliance on the expertise of new Canadian professionals.

However, significant barriers restrict internationally trained professionals from continuing their careers in Canada. The geoscience community has a duty to break down these barriers, and assist our fellow geoscientists in becoming recognized professionals. In recognition of both the need and the opportunity, Toronto and Region Conservation has taken action to promote access to Canadian work experience through their Professional Access and Integration Enhancement (PAIE) Programs. This paper presents the history of the PAIE programs highlighting successes, challenges, stakeholders, and next steps.

## Introduction

As shown on **Figure 1**, immigration to Canada has experienced a steady increase since 2003, almost doubling over that time (Citizenship and Immigration Canada, 2009). Although most of the growth was in the “labourer”, “intermediate/clerical”, and “not stated” categories, more than 30,000 immigrants per year classified themselves as “professionals” since 1999. This represents more than 376,000 professionals since 1999, and the total is likely higher, since some professionals may be counted in the other categories.

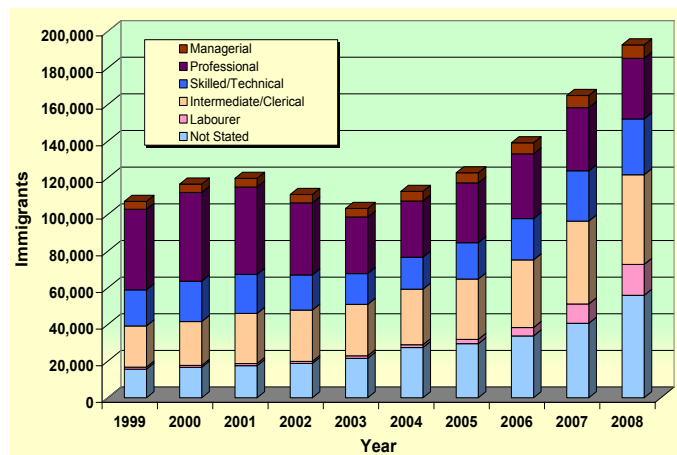


Figure 1: Immigration to Canada 1999-2008

Immigration of internationally trained professionals has the potential to offset the combined effects of an aging population, increasing early retirement, and growth in the job market. The number of seniors in Canada is projected to increase from 4.3 million to 8.0 million between 2006 and 2026 (Schellenberg and Turcotte, 2007). Research has shown, however, that for most educational and industrial categories, Canadians are retiring earlier than they did even five years ago (Rathje, 2003). Compounding these issues, highly skilled occupations have grown at an annual average rate of 1.7%, compared to the economy-wide average of 1.4% since 1987 (Lapointe et al, 2007). These challenges may have profound effects on Canada's workforce and economy.

Internationally trained professionals have the potential to buffer the anticipated shortage of professionals if they are able to find meaningful employment in their chosen fields of expertise. However, recent immigrants with university education from outside of North America and Europe have lower rates and quality of employment compared to Canadians (Gilmore, 2008). This discrepancy is due to a number of factors, including lack of: advanced technical language skills; Canadian experience; professional accreditation; and contact networks.

The demographic shifts and skills shortage means that action needs to be taken now to assist the internationally trained in breaking down barriers so they can achieve full and meaningful employment. Everyone has a role to play in this process; including regulators, employers, professional associations and licensed professionals. For example, the Code of Ethics for Geoscientists (Ont. Reg. 60/01 under the *Professional Geoscientists Act, 2000*) requires that geoscientists "*provide the opportunity, where possible, for the professional development and advancement of associates and subordinates*". The Professional Access and Integration Enhancement (PAIE) Program led by Toronto and Region Conservation (TRCA) is one example of a formalized program that is designed to meet this need. The concepts and lessons learned from this program can be used to develop new and innovative support systems and programs for internationally trained professionals within the geoscience field.

## Genesis and Objectives

PAIE is a unique bridging program that had its genesis in TRCA's Environmental Volunteer Network (EVN). This initiative accepts volunteers to assist with various monitoring programs managed by TRCA. Although this program was and still is effective, staff noted that more and more participants in the EVN had advanced degrees from a variety of countries, but were unable to find employment in their fields of expertise. Deciding that a more formal approach was warranted, staff submitted a proposal to the Ministry of Citizenship and Immigration of Ontario to offer a year-long practical training program.

This proposal was developed in partnership with the Association of Professional Geoscientists of Ontario (APGO) and the Ontario Professional Planners Institute (OPPI) with the objective of having 35 participants qualify for professional membership in their field (geoscience or planning). At the same time, the program was intended to help match employers with highly-skilled and experienced professionals, thereby filling employment gaps that have been identified in the environmental sector.

## Methodology

The PAIE I Program began with a three-pronged approach, including English language training, workshops, and a nine month paid work placement. The English language component provided instruction on practical, technical language skills, while the workshops focused on Canadian workplace culture, resume writing, regulatory issues, and general information about Ontario geology, hydrogeology, and planning. One workshop included a day-long field trip to observe local geology and land uses. This program was very successful, with over 70% of participants obtaining work in their field, and most of those receiving their professional accreditation. Considering that none had attained either after years of living in Canada, this was considered a

significant success. Upon program completion, TRCA undertook a review to determine the feasibility of expanding this service and broadening the scope.

The review identified a need for enhanced English language training, a longer employment period, and the inclusion of environmental engineers. This led to a second initiative, called PAIE II, which was organized in collaboration with Professional Engineers Ontario (PEO), Accessible Community Counselling and Employment Services (ACCES), and Workplace Communication and Diversity Inc. (WCD). The program was also expanded to include 45 participants with a year-long work placement to meet the eligibility requirements for licensure with PEO. Intercultural communication and cultural sensitivity training for both participants and employers became an important component of this program.

The PAIE II program is funded by both levels of government through Citizenship and Immigration Canada (CIC) at the federal level and the Ministry of Citizenship and Immigration (MCI) at the provincial level. It is led by TRCA staff, with assistance from the respective regulatory bodies, post-secondary institutions, professional associations, employment service agencies, and diversity and intercultural communication training consultants. Both private and public sector employers have offered paid placements in the fields of engineering and geoscience.

## Program Details

The PAIE II Program includes the following modules, comprising about 250 hours of formal training to meet the overall goals of employment and licensure for all participants. The curriculum has been developed through our experience working with employers, regulators, newcomers, and service agencies since the inception of PAIE I in 2006 and incorporates the input and expertise of all parties.

**Job Search Training** – *Major Topics:* market overview, marketable skills, resume and interview training, professional networking.

**Workplace Culture and Communication Training** – *Major Topics:* intercultural communication, non-verbal communication, small talk and building rapport, self-promotion, workplace relationships, and job retention.

**Technical Workshops** – Designed to address current practices, regulations, legislation, and technical software in sub-specializations within Geoscience and Engineering. *Sample Topics:* brownfield redevelopment, environmental site assessments, hydraulic and hydrologic modeling, geomatics, environmental approval agencies, project management, professional licensure, professional presentations, technical report writing, occupational health and safety, and technical software.

**Field Trips** – Approximately three are conducted per program. Examples of past field trips include: Toronto area geology, coastal erosion project site visit, Toronto water treatment plant tour, environmental assessment public consultation.

**Work Placement** – The PAIE Program culminates in a full-time 12-month paid work placement with a host employer that is commensurate with each participant's skills and experience and can be counted towards professional licensure.

## Measures of Success

The careers of numerous internationally trained professionals have been successfully launched through the PAIE Programs. As mentioned above, upon the conclusion of the PAIE I Program, 24 out of 35 participants were employed in their field. The PAIE II Program is currently in progress and already, close to 75% of participants have either gained relevant, full-time employment or are in their one-year placement period with a host employer. Many current and past PAIE participants have obtained professional licensure through their respective regulatory

body. Others have been inspired by the success of the PAIE participants, and have left “survival” jobs to find meaningful work in their field. In addition, all participating employers have been surveyed, and many have noted that valuable contributions have been made to their organizations by PAIE Program participants. One example response was as follows:

*Being unsure of what to expect, the program not only met our expectations but far exceeded them. The candidates who were presented to us through this program were excellent. All internationally educated and trained individuals, they possessed excellent communication skills and had impressive work experience. The biggest challenge was choosing the candidates we wanted to hire, as they were all qualified and enthusiastic.*

## Conclusions and Next Steps

There is a demonstrated need for internationally trained professionals in the Canadian marketplace. This need is driven by both changing demographics and a growing demand for trained professionals. However, these individuals experience significant barriers to obtaining employment in their professional field in Canada. Mentoring and targeted training that is developed specifically for this audience can be effective in helping them overcome these barriers. With the right training and support systems in place, internationally trained professionals can quickly and easily integrate into the marketplace and lend their knowledge and expertise to the betterment of society.

Regulators, employers, professional associations, and licensed professionals need to recognize both the issues and the opportunities and assume a leadership role in finding solutions. The PAIE Programs are examples of effective initiatives, but represent a single model, of which there can be countless variations. The two generations of PAIE Programs have directly assisted 80 individuals, and provided inspiration to several more. With 30,000 new professionals coming to Canada every year, it is clear that more programs like PAIE are needed nation-wide.

## Acknowledgements

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