

## SPRING 2009

### Issue 8

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#### Report:

More on Leveraging  
Global Engineering  
Competencies

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## Greetings

- CAPE is well into its exciting new initiative - **Leveraging Global Engineering Competencies**. More about this ahead in this issue.
- CAPE continues to build the capacity of service agencies serving immigrants with engineering backgrounds: over 200 frontline service staff at more than 50 different organizations currently being trained in the Toronto and GTA regions on its career support tools suite!
- If you have recently moved or any of your contact details have changed, please update your information by calling us at 416 955 0563 or send us an email at [Info@capeinfo.ca](mailto:Info@capeinfo.ca)
- If you have any questions, please don't hesitate to email us at [info@capeinfo.ca](mailto:info@capeinfo.ca).

Watch out for exciting developments from our employer outreach activities



CAPE Membership continues to increase and currently stands at nearly 2300 strong membership base

## Member News

### STRATEGIC PLAN 2009/10

At its Annual General Meeting held in November 2008, CAPE adopted the following nine point strategic plan:

1. CAPE will focus on employment with emphasis on creating demonstrable opportunities for IEBs
2. CAPE will focus on linking licensing to innovation not employment for IEBs
3. CAPE will establish skills-commensurate opportunities for IEBs without compromising their ability to participate actively in the practice of professional engineering
4. CAPE will provide effective information, employment and decision support to IEBs
5. CAPE will focus on the opportunities arising out of the emerging trends in engineering practice
6. CAPE will pilot competency-enhancement or employment-generating programs/courses for IEBs
7. CAPE will aim at developing discipline-specific information, centering on the technical vocabulary, codes and standards of practice in the various engineering disciplines
8. CAPE will have a developed mentoring system for CAPE and its coalition partners
9. CAPE will be working with immigrant professionals of various backgrounds in areas of mutual interest

We are now implementing this nine point plan.

### FOCUS SHIFTS TO EMPLOYMENT

Our major work has so far been focused on establishing strategic partnerships in order to pilot generation of real-time labour market information for engineers. With the help of its Leveraging Global Engineering Competencies Project, funded by the Ministry of Training Colleges and Universities, CAPE is now ready to move its work and research also in the direction of employer outreach and engagement.

In keeping with the employment-focused strategies outlined above, CAPE has developed partnerships with a number of organizations and colleges that provide services for immigrants with engineering backgrounds outside the Toronto area. These areas include St Catherine's, Niagara, Ottawa, Kingston, Cornwall, Hamilton, Barrie, Thunder Bay, and Kitchener, among others.

### CAPE SPREADS ITS OUTREACH

CAPE has now started to register immigrants with engineering backgrounds residing in all other provinces and territories of Canada. Immigrants with engineering backgrounds residing across Canada can join CAPE by clicking on the following link:

<http://www.capeinfo.ca/join.php>

In addition to this, CAPE is assisting the Multi-Profession Roundtable on Employment and Policy to assist members of other regulated professions to develop membership models similar to the CAPE model.

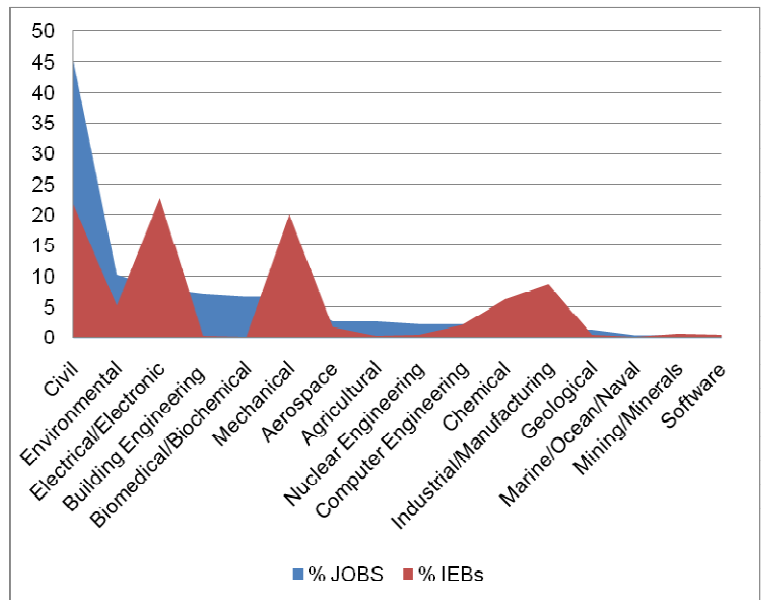
If you have colleagues or know others in a situation similar to the one we are facing with CAPE members, or know those who are from another Province or Territory or are from another regulated profession, please feel free to direct them to the following link to become members of our growing community.

## Employment News

### INITIAL FINDINGS – LABOUR MARKET

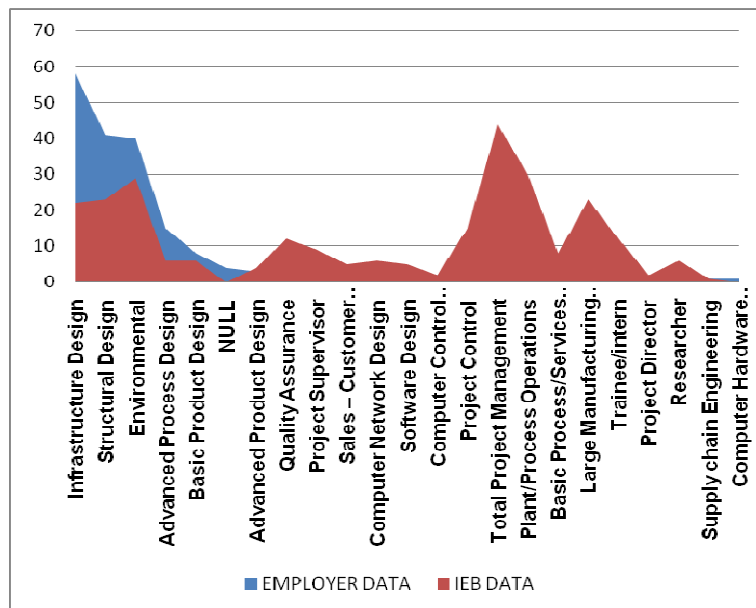
CAPE is piloting a number of online tools to capture labor market dynamics relevant to our growing membership of immigrants with engineering backgrounds. One pilot looked at 224 engineering jobs that were advertised by large engineering companies on their websites over the three month period running from March 3, 2009 and June 3, 2009. Using our new tools we carried out a sophisticated comparison of three areas of engineering competencies required for these jobs with the competencies of 345 newcomers in our database. The following are the initial results emerging from this comparison:

The figure on the right shows a comparison of the percentage of jobs being advertised across disciplines (blue) in comparison to the percentage of the 345 CAPE members who hold credentials and experience in these disciplines.



It can be seen from this comparison that the percentage of CAPE members who are from the civil, environmental, biomedical/biochemical and agricultural engineering disciplines is less than the percentage of jobs in these disciplines.

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However the percentage of CAPE members from the electrical/electronic, mechanical and engineering management disciplines is much higher than the percentage of jobs in these disciplines.

The figure below shows the findings of a comparison by percentage of the demand for the functional skills (shown in blue) in comparison to the functional skills possessed by the 345 CAPE members (in red) out of those who completed their portfolio in the last two years. This analysis shows that except in the areas of civil and environmental design, immigrant engineers have a surplus of the functional skills demanded by employers.

An analysis of the software requirements required by employers shows that there are three levels of computing skills that an engineer increasingly needs to assimilate in order to function in the emerging engineering workplace. These can be described as follows:

Level 1 skills: those that are essential to operating in a computerized environment, such as word processing, spreadsheets, power-point, outlook etc

Level 2 skills: that are necessary to operate in the emerging 2D and 3D applications linked to computer aided design (CAD) for particular disciplines and sub-disciplines. Some examples of these would be Microstation and Autodesk.

Level 3 skills: that include the knowledge-specific packages for particular specializations. An example of this is ProSTAAD, which is widely used by structural engineers.

## Community News

### MULTI-PROFESSION ROUNDTABLE ON EMPLOYMENT AND POLICY

Recently, CAPE (Council for Access to the Professions of Engineering) opened up its purview beyond the engineering professionals by providing a forum to all the professionally qualified immigrants with a view to integrating their needs, perceptions of barriers, and hopes in creating strategic visions for marketing their skills, knowledge and experience. With this intent, a strategic planning meeting was organized on June 20, 2009 at Metro Hall. In spite of the rain, the event attracted 34 professionals from a diverse range of backgrounds including IT, Banking, Medical, Legal, Engineering, Social Sciences, Management, etc.

Dr. Gurmeet Bambrah of CAPE gave an historical overview of the different waves of immigration and the patterns of labor market scenarios that they gave rise to. She also briefly talked about the CAPE model as a tool for leveraging the competencies that has been used with a significant degree of success in respect of the engineering professionals, which could serve as an exemplar for developing alternative visions for integrating the labor pool from different backgrounds.

A number of speakers shared stories of their brush with the labor market and the resources they had brought to bear in dealing with their individual circumstances. Later, the gathering was sub-divided into three broad subgroups, namely, engineers & IT professionals, social services sector professionals, and health & wellness professionals, in order to narrow down their proposals for strategic action. While one of the subgroups went ahead with the thought of working on developing, along the lines of CAPE, a database of professionals from their broadly defined field by registering individual portfolios in terms of their skills, qualifications, and experience, other groups established virtual channels of communications for further deliberating their ideas. All attendees left the forum with the promise of regrouping again in another twelve weeks with more concrete proposals for making their Canadian dreams come true.

The event was free and accessible to immigrants of all professional backgrounds. For further information, contact: Tahira Qamar, MPhil, MCIP, RPP, MRTPI, City Planner/Designer/ Outreach Coordinator, Tel: 905-955-0563 or Cell: 905-330-4721 Email: [info@professions360.com](mailto:info@professions360.com)

## Knowledge Mobilization

### LEVERAGING GLOBAL ENGINEERING COMPETENCIES

#### Overview

Under the multi-stakeholder employment strategy that CAPE launched in May 2006, the need to investigate the employer side of the equation was clearly established, whereby the skill deficiencies in the IEB pool could be determined in terms of employer's specific needs and job requirements through gaps analysis. This, it was argued, would provide better information to immigrants, as well as better tailor available skills to match employer needs.

Leveraging Global Engineering Skills (LGES) is a project that will address this issue through a pilot that embarks on an employer-driven, job-function based training curricula development process for internationally trained / experienced engineers, technicians and technologists using specialized skills and competency matching tools. At the same time, this initiative will strengthen the post-secondary programs and the voluntary sector's capacity to serve internationally educated engineers through integration of the employer driven curriculum into their employment and training support programs. This initiative will enable both engineers and employers "to understand their capacity for dealing with human resource requirements and to implement labor force adjustments"

## Scope

The project will engage employers in developing the content of selected employment preparation and skills development programs for immigrants with engineering backgrounds. Advanced and innovative competency matching tools that CAPE has developed to establish the skills gaps of potential candidates for specific jobs will be integrated into selected projects to create a curricula development process customized to employer driven training programs for immigrants with engineering backgrounds for the following four groups of engineers:

1. Environmental engineers
2. Civil (structural) engineers
3. Mechanical Engineers (Plant Design and piping)
4. Electrical (switchgear, protection and controls)
5. Electronic (Design electronic circuit boards )

## Partnerships

The following are some of our partners in this project:

- Humber College through its Engineering Connections: Software Skills Enhancement Program for engineers
- The Toronto Region and Conservation Authority through its Professional Access and Integration Enhancement Program
- Colleges Integrating Immigrants to Employment (CIITE) – an Ontario-wide colleges' initiative
- A number of private colleges serving immigrants with engineering backgrounds
- Ontario Society of Professional Engineers

## Employer Engagement

Direct employer engagement will also be included particularly to ensure outreach to remote regions.

## Contact Us

**CAPE INFO is published four times per year and is the newsletter of:**

**CAPE Council for Access to the Profession of Engineering**

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