A MULTI-STAKEHOLDER DRIVEN EMPLOYMENT STRATEGY FOR IMMIGRANTS WITH ENGINEERING BACKGROUNDS

From 'Canadian First' to 'Canada First' to compete globally in the 21st Century

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By

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THE COUNCIL FOR ACCESS TO THE PROFESSION OF ENGINEERING (CAPE)

Evolving membership based organisation for the following categories of immigrants with engineering backgrounds living in Ontario

- Over 1000 Members from across the province
- coalition of some 20 existing and evolving community engineering associations (with an estimated 10 to 12 thousand members)
- Potential new entrants (estimated at over 10,000 per year)

SISA ACTION RESEARCH APPROACH

- 1. Situation analysis to determine size of problem Final Report on survey of 1003 IEBs (January 2006)
- 2. Research to identify and build capacity of stakeholders CERIS Working paper #41 (November 2005)
- 3. Developing a baseline of issues facing different stakeholders CAPE LAUNCH Proceedings (October 2004)
- 4. Adoption an approach centring on constructive dialogue and consensus building CONSTRUCTIVE ENGAGEMENT through roundtable consultation
- 5. Multi-stakeholder roundtables to develop a unified approach to solving the issues 6 Roundtables
- 6. Arriving at an action plan jointly owned by all stakeholders Employment Strategy for IEBs

ENGINEERING ACCESS PROJECT

Presentation consists of three components:

- Situation Analysis Survey of Immigrants with Engineering Backgrounds Settling in Ontario, Engineering Employers and Community Supports (January 2006)
- Research Canadian 'Experiments, in Diversity: The Case of Immigrants with Engineering Backgrounds who Settle in Ontario (November 2005)
- Constructive Engagement and Multi-stakeholder roundtable employment strategy for immigrants with engineering backgrounds (Due May 2006)

THIS CAPE PRESENTATION

Consists of three components:

- Key Findings: Survey of Immigrants with Engineering Backgrounds Settling in Ontario, Engineering Employers and Community Supports
- Canadian 'Experiments, in Diversity: The Case of Immigrants with Engineering Backgrounds who Settle in Ontario
- Multi-stakeholder roundtable on an employment strategy for immigrants with engineering backgrounds



- By Region
- Range of qualifications
- Range of disciplines
- Length of stay
- Years of experience
- Employment status

Other Surveys

Specific surveys relating to economic performance of those in employment showed:

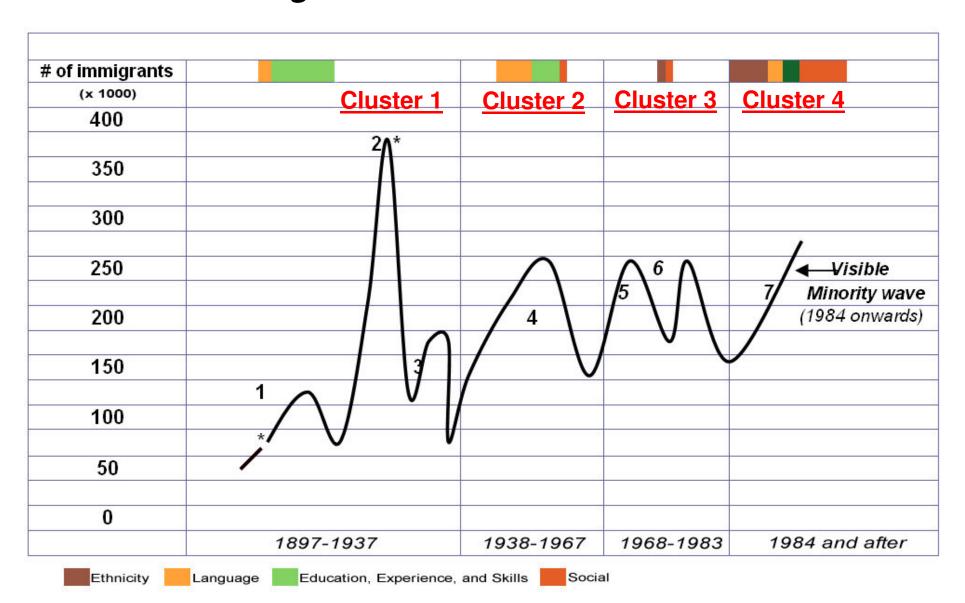
- Range of qualifications
- Years of experience
- Length of stay
- Employment
- Salaries

Other Surveys

A Specific surveys relating outcomes of employment preparation and bridging program shows that :

- Length of program
- Employment outcome

Canadian 'Experiments' In Diversity Degree of Disconnect Model



Cluster 1: 1897-1937

- Preferred source countries white commonwealth
 - Britain, United States, Newfoundland, South Africa, Irish Free State, New Zealand, Australia
- Wave 1: Miners, engineers and scientists
 - set up Canadian Society of Civil Engineers (CSCE) to control supply of engineers
- Wave 2: WW1Refugees and Returning Military engineers led to competition
 - CSCE devolved to provinces leading to formation of Professional Engineers of Ontario in 1922
 - Licensing made mandatory 1937
- Wave 3: Unskilled workers and refugees
 - Voluntary settlement organizations setup in response to language disconnect

Canadians First

"There is certainly no objection to men from other countries coming to Canada and taking up their abode here. ... On the other hand, it will be found that there is strong objection to foreign consulting engineers doing work in this country which can be done equally well by our own engineers" (Editorial, CE, 1912: 269).

Cluster 2: 1938-1967

- 'Non-preferred' source countries
 - Eastern and Southern Europe
- Wave 4: Refugees WWII, unskilled workers (trades and technicians) and few professionals
 - Reserved title for Engineers introduced by PEO to set apart Engineers and technicians (gate-keeping)
 - Academic accreditation
- Certification of technicians initiated by PEO
 - OACETT set up in 1961
- Underutilization of skilled tradespersons
 - Voluntary ethno-cultural community settlement organizations e.g COSTI (1961) set up to provide training and retraining or language training and bridging education (Polish engineers)

Technicians not Professionals

"A terrific number of applications are being received from non-graduates; many of whom should not apply for professional standing but in all probability would make excellent engineering technicians" (Executive Director to PEO Council, October, 1956 raising the possibility of an engineering technicians association)



Cluster 3: 1968-1983

- Non-preferred and non-traditional source Countries
 - Mostly European; and
 - a few from countries
- Bill of Rights (1960) and Charter of rights (1982)
- Wave 6 Skilled workers based on point system
 - Prearranged Employment for skilled workers
- Education or language disconnect irrelevant
- Settlement services formally handed over to voluntary and ethno-cultural community organizations
 - mandate extended to include employment support for non-skilled workers and refugees.



Cluster 4: 1984 and after

- Overwhelmingly global from non-traditional source countries
 - largely commonwealth countries
- Points geared to higher education and experience
 - Tenfold increase in IEBs (Competition)
 - No pre-arranged employment
- Skilled immigrants more educated and experienced than host population
 - Protection of life, health, property and public welfare introduced into licensing in 1984 by PEO
 - Experience accreditation and Canadian Experience introduced into licensing by PEO in 1990 (gate-keeping)
- Employment support for non-skilled workers and refugees adapted and extended to IEBs to bridge surplus?
 - New Ethno-cultural engineering associations
 - Socially and ethnic disconnect from host/employer
 - Translated into ESL, LINC

Canadians First?

"OSPE will continue to advocate for the interests of the 66,000 licensed professional engineers in Ontario, as well as those seeking licensure. We're committed to supporting and encouraging the interests of engineers and engineering students, wherever they received their education. We view the potential over-supply, underemployment and under-utilization of professional engineers as some of the most serious issues facing our membership....." (Open letter to the Prime Minister, March 18, 2004 by the Ontario Society of Professional Engineers (OSPE))



Canada and the World

"In all likelihood, the Canadian federal government will be pressured into making PEO an offer that it cannot refuse. Either PEO agree to harmonize its admissions standards with the rest of the world, or the engineering profession will be partially or entirely deregulated. After all, if the rest of the world doesn't need the protection afforded by a strict regulation of engineering, why does Canada?"

Norbert Becker ([1]) (President, The Becker Engineering Group, A PEO Councilor-At-Large and the Chair of the PEO Globalization Strategic Planning Task Group)
[1] Norbert Becker, P.Eng (1998). It's time to change the federal government's tendency to enact trade agreements on services without consulting the engineering profession. Engineering Dimensions March/April 1998

KEY RECOMMENDATIONS

- Fair, transparent and non-discriminatory regulation are required
- Employers must moving beyond risk adversity to embrace change
- Serious commitment is need by all levels of Government to principles of equity and equality of employment outcomes
- Productivity must be merit driven
- Broader stakeholder consultation is needed for an integrated, coordinated and seamless settlement process for immigrants with engineering backgrounds

CANADA'S PRODUCTIVITY GR

CANADA TODAY

Per cent growth Canada's labour productivity is declining 3.5 -Weak productivity is ultimately one of the biggest roadblocks to improving Canada's standard of living Innovation and Research in Canada is falling behind other OECD or G7 countries Educational attainment is intrinsically linked to productivity but Canada has shown no change in the number of years a Canadian is schooled ^{1.0} since 1960 Canada is a signatory to GATS and NAFTA which call for liberalization of professional services including engineering -0.5 Industry Canada http://strategis.ic.gc.ca/pics/pr/livstand.pdf

1997

1998

1999

2000

CHALLENGES AHEAD

- Protection of domestic employment opportunities has been an historical need
- Canada needs to increase productivity to compete globally
- Globalization and increased competition from emerging economies such as China and India
- Great pressure to facilitate borderless access to markets and labour pools
- We are midst a transition from 'Canadians First' to 'Canada First'
- Immigrants with higher academic attainment have a key role to play of this transition in Canada

CURRENT MODEL:CANADIANS FIRST

EMPLOYER ISSUES OUTCOMES Lack knowledge- foreign **Defective immigration information** credentials Poor access to labour market Lack knowledge of other Deskilling of IEBs and Decountry experience legitimization of their credentials are risk adverse Poor social, ethnic or cultural **Depend on human resources** links firms/departments HIRING PRACTICES SYSTEMIC BARRIERS Placement commission related 'Reserved Title' – gate-keeping to perceived employer risk Multiple credential recognition Hiring 'Canadians first' as systems which are not harmonized justifiable 'exact fit' - scanning **Experience Assessment by** out for: representatives having inadequate **Canadian Experience** other country knowledge? **Accreditation without criteria** Piecemeal workplace integration Language and work place support - ESL, resume writing,

cold calling, networking and

sector terminology

culture compatibility under the

cover of soft skills

CONSTRUCTIVE ENGAGEMENT

- CAPE launched on 16th October, 2004 at a multi-stakeholder forum on Globalization, International Mobility and Canada in the 21st Century
- The following stakeholders outlined their concerns with integrating IEBs into the engineering profession in Ontario:
 - PEO, LGA Appointee (PEO), OACETT, OSPE and CCPE
 - Employers, recruiters and service providers
 - Community Engineering Associations and CAPE
 - PROMPT and other advocates for immigrants
 - Federal and Provincial Ministers
- A stake analysis resulted in a comprehensive list of issues that need ed to be addressed
- This set the agenda for the constructive engagement of all the stakeholders above

MULTI-STAKEHOLDER ROUNDTABLES – AND THEIR STRUCTURE

- The objective was to derive a multi-stakeholder employment strategy for IEBs
- Six roundtables will be held of which the following have been held so far
- Roundtable 1 on the inevitability of change which discussed all the issues identified from the launch
- Roundtable 2 on Integrating Stakeholder Employment Strategies and Approaches
- Roundtables 3 and 4 on Developing A Unified Approach To Integrating IEBs Into The Ontario Engineering Workplace
- Among others the roundtable participants so far include representatives from:Immigrants with engineering backgrounds, Employers, Regulators Human Resources Skills Development Canada (Federal), Canadian Heritage (Provincial), City of Toronto, Community Engineering Associations,

Employment Support and service providers, Universities and community colleges, Advocacy bodies, Trade Unions and the media

COMPONENTS OF THE MULTI-STAKEHOLDER EMPLOYMENT STRATEGY I

1. STRATEGIES FOR SYSTEMIC CHANGE

- Process change
- Governance

2. LABOUR MARKET

- Informed Decisions
- Labor market information
- Education and training

3. SUPPORT SERVICES

- Licensing, Mobility and Accreditation
- Employer Risk adversity and training by professional engineers
- Standards and regulation
- Communities and Networks
- Economic Realities and Empowerment



IEB Survey- Range of disciplines

Engineering Discipline	Number
Civil Engineering	177
Electrical and Electronics Engineering	162
Mechanical Engineering	154
Engineering Managers	82
Industrial and Manufacturing Engineering	72
Chemical Engineering	56
Software Engineering	32
Electrical and Electronics Engineering Technologists and Technicians	30
Geological Engineering	6
Railway and Yard Locomotive Engineering	6
Civil Engineering Technologists and Technicians	25
Computer Engineering (Except Software Engineering)	29



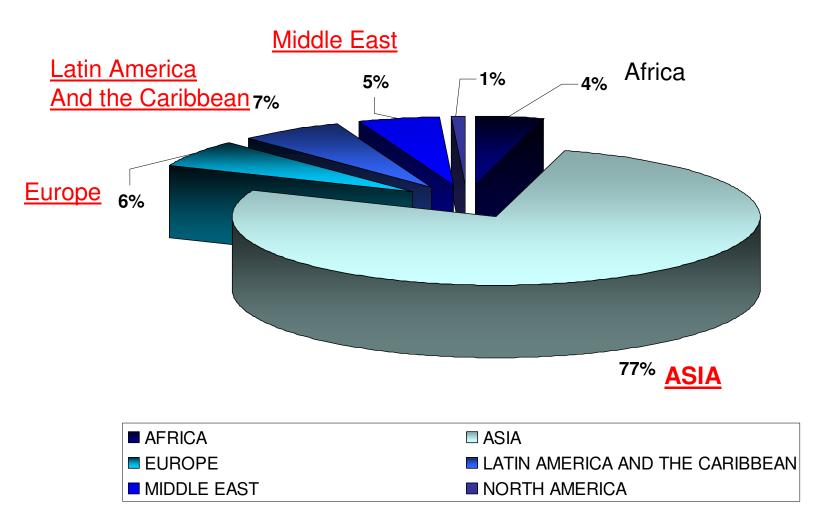
IEB Survey- Range of disciplines (Continued)

Engineering Discipline	Number
Metallurgical and Materials Engineering	21
Engineering Inspectors and Regulatory Officers	16
Industrial Engineering and Manufacturing Technologists and Technicians	15
Petroleum Engineering	14
Aerospace Engineering	13
Mechanical Engineering Technologists and Technicians	13
Mining Engineering	9
Engineering Officers, Water Transport	8
Stationary Engineering and Auxiliary Equipment Operators	7
Geological Engineering	6
Railway and Yard Locomotive Engineering	6
Other Professional Engineering, n.e.c.	35



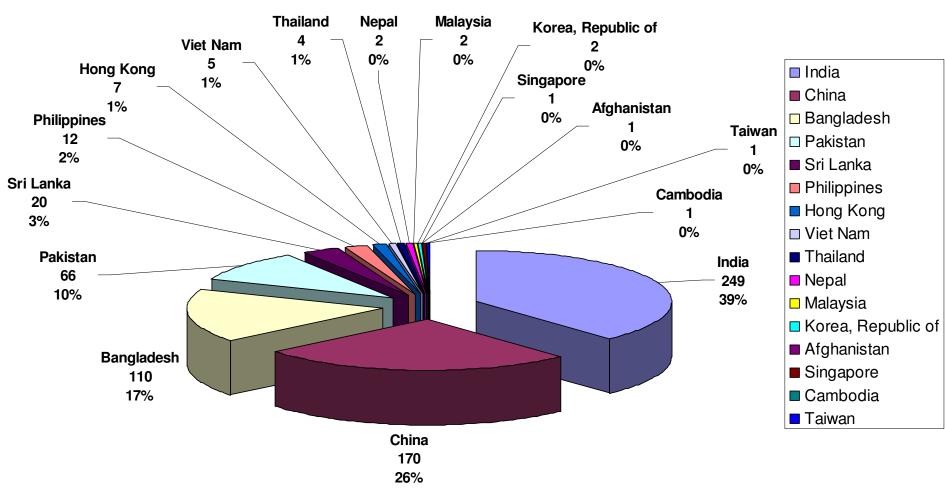
chart

IEB survey- Number of members from different regions



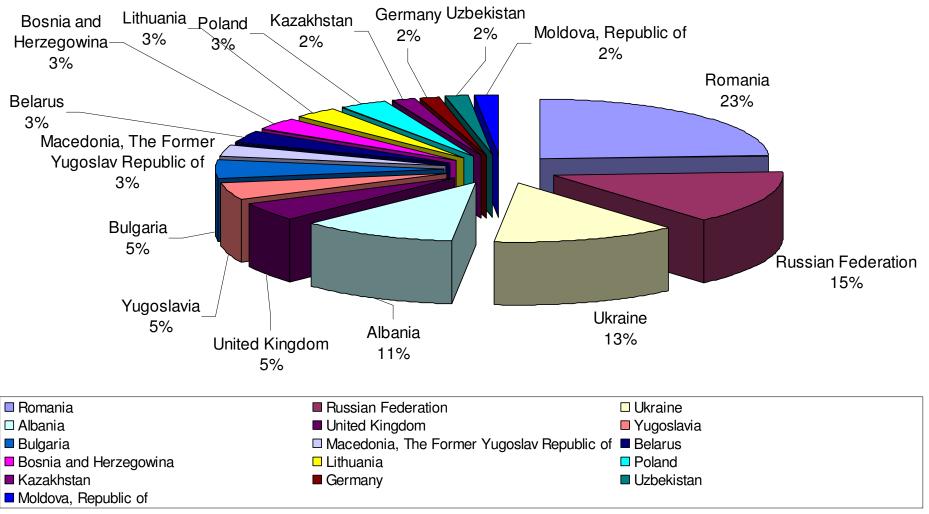


Members from Asian countries



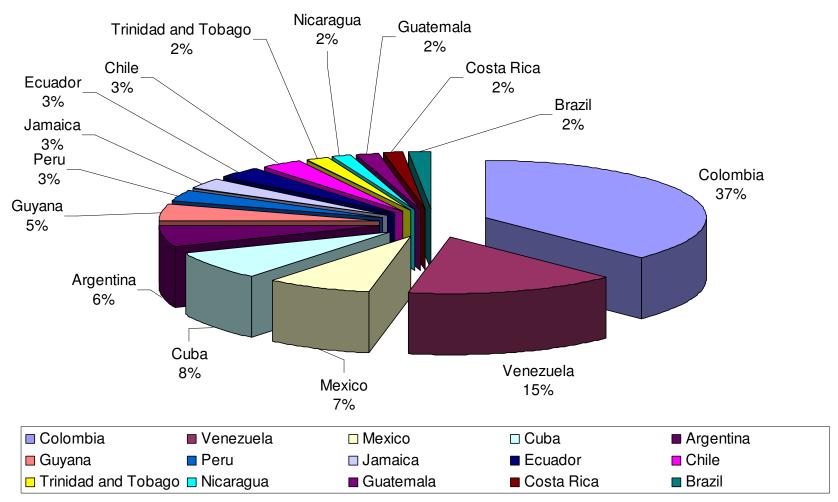


Members from European countries



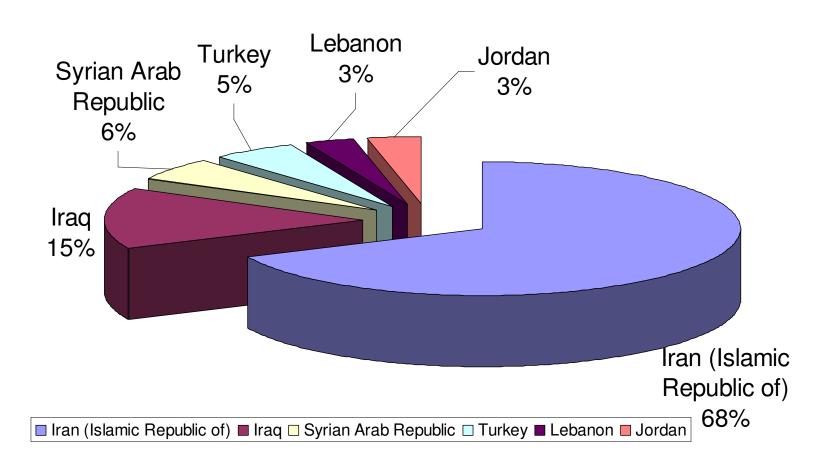


Members from Latin American and the Caribbean countries



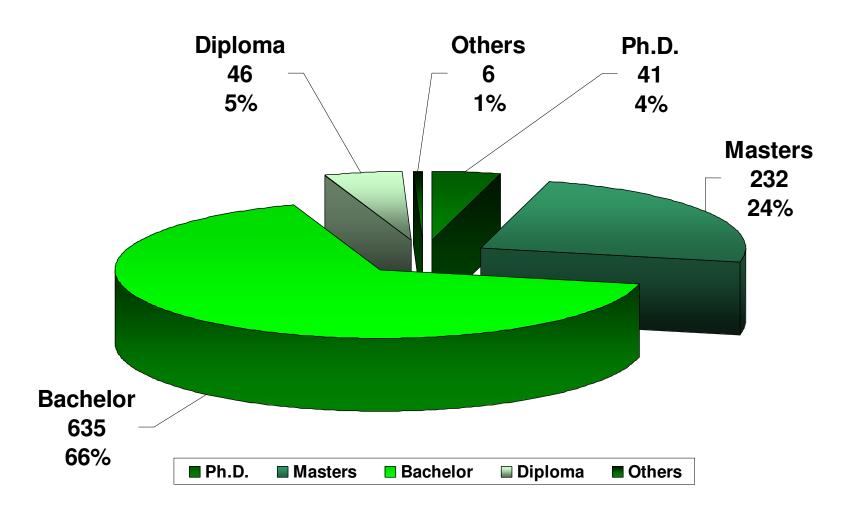


Members from Middle Eastern countries



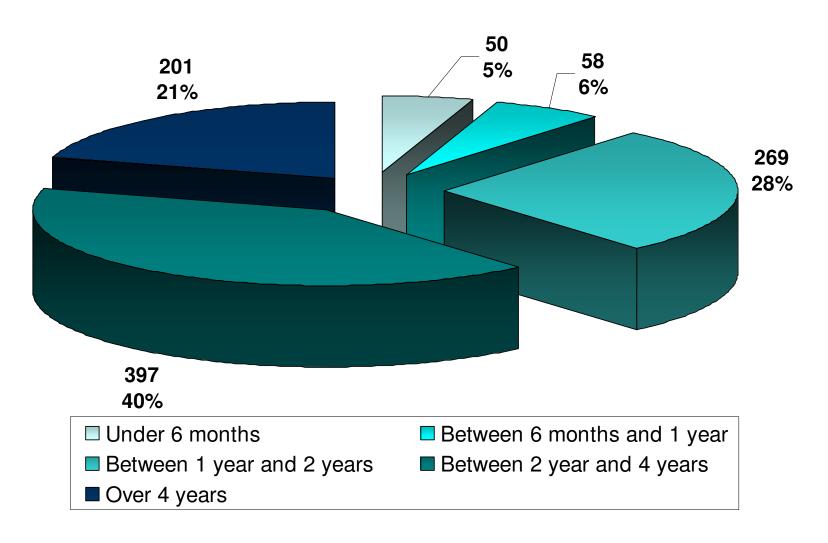


IEB Survey- Range of qualification



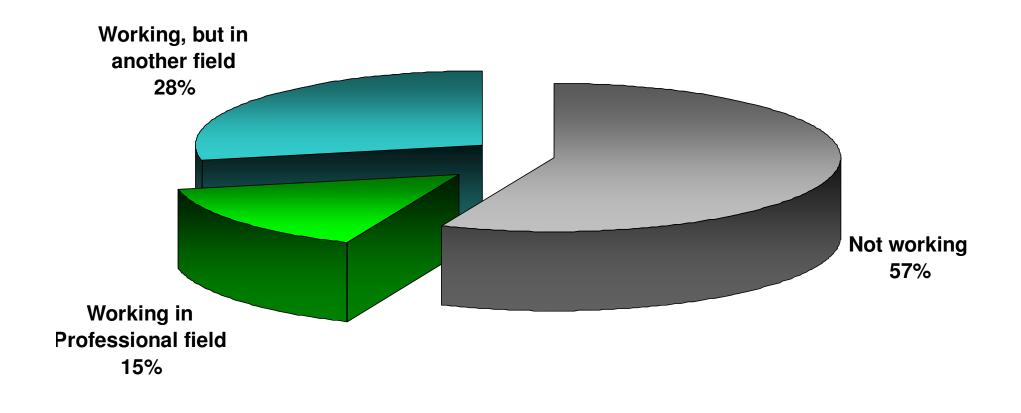


IEB Survey- Length of stay in Canada





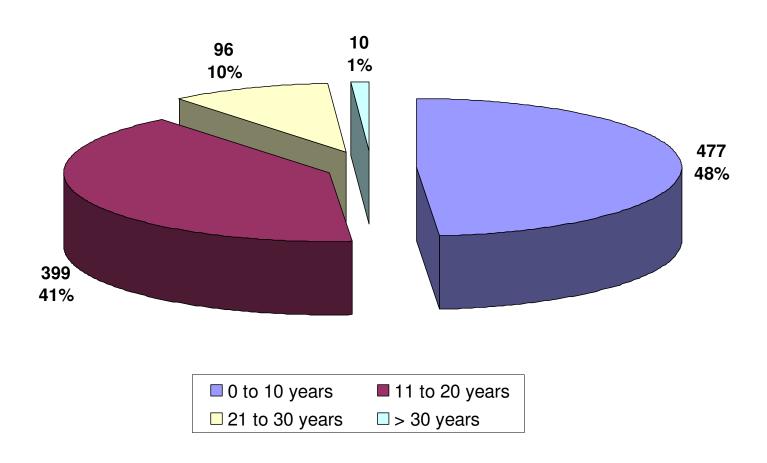
IEB Survey- Employment Status



■ Not working ■ Working in Professional field ■ Working, but in another field

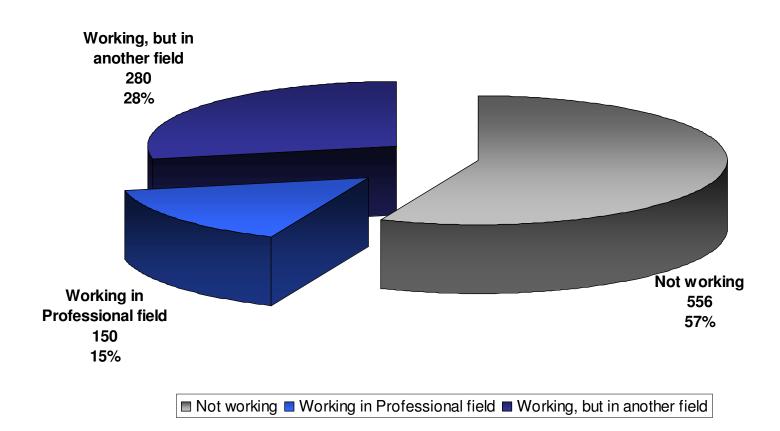


IEB survey- By years of engineering experience





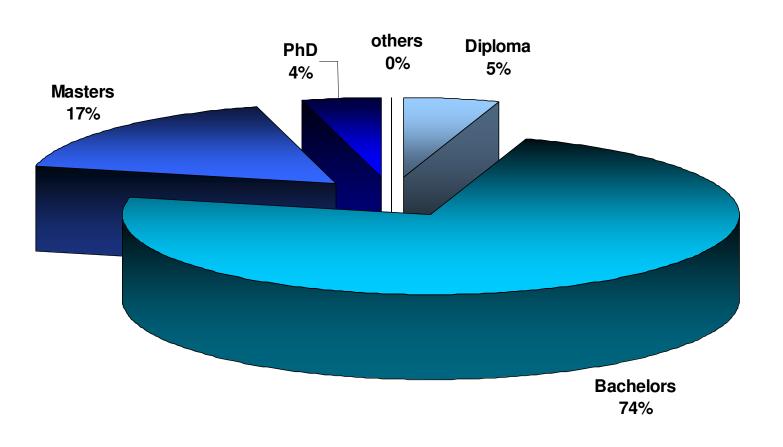
IEB Survey-Employment Status





Employed IEB Survey-Range of

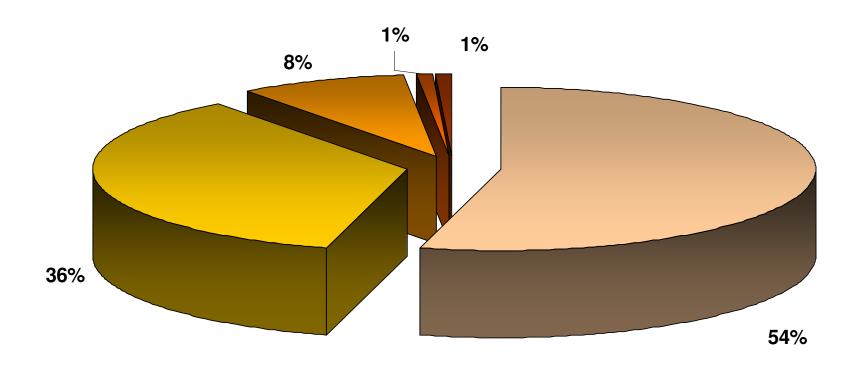
qualifications







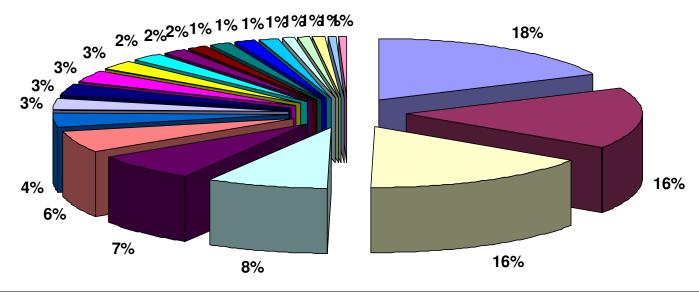
Employed IEB Survey-Length of stay







IEB Survey-Range of disciplines



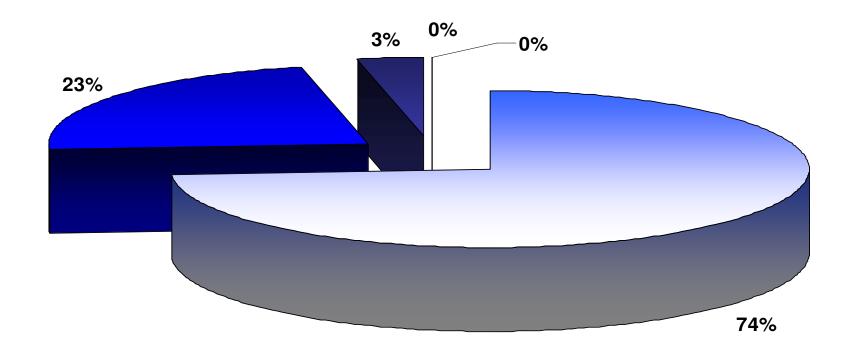
- Civil Engineering
- Mechanical Engineering
- Industrial and Manufacturing Engineering
- Other Professional Engineering, n.e.c.
- Electrical and Electronics Engineering Technologists and Technicians
- ☐ Civil Engineering Technologists and Technicians ☐ Engineering Inspectors and Regulatory Officers
- Petroleum Engineering
- Mechanical Engineering Technologists and Technicians
 Engineering Officers, Water Transport
- Geological Engineering

- Electrical and Electronics Engineering
- ☐ Engineering Managers ☐ Chemical Engineering

- □ Software Engineering
 □ Computer Engineering (Except Software Engineering)
- Metallurgical and Materials Engineering
- Industrial Engineering and Manufacturing Technologists and Technicians
- Aerospace Engineering
- Mining Engineering
- □ Stationary Engineering and Auxiliary Equipment Operators
- Railway and Yard Locomotive Engineering



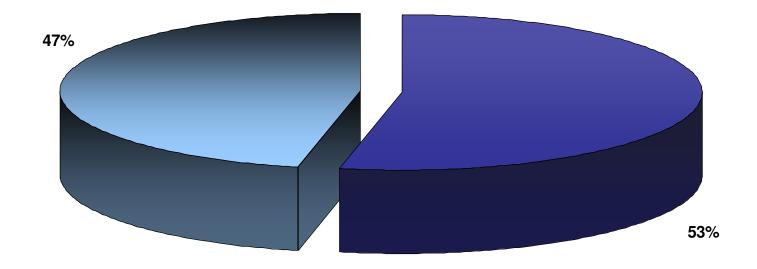
Employed IEB Survey-By years of engineering experience

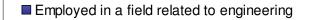






Employed IEB Survey- By Employment

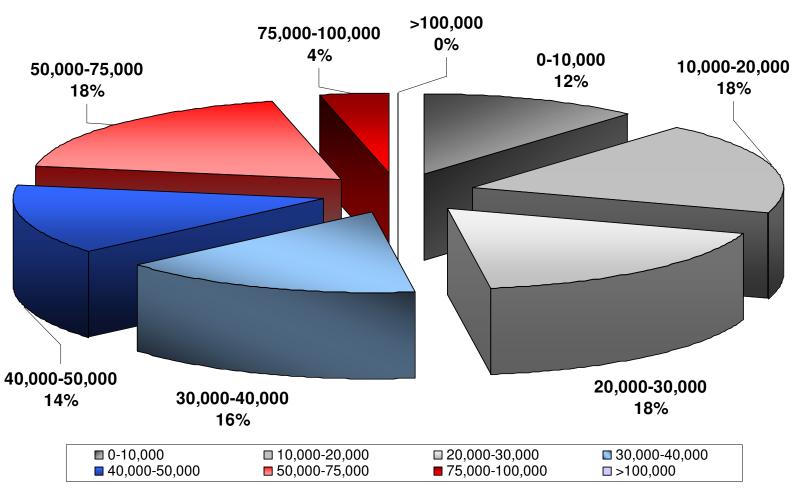




■ Not employed in a field related to engineering

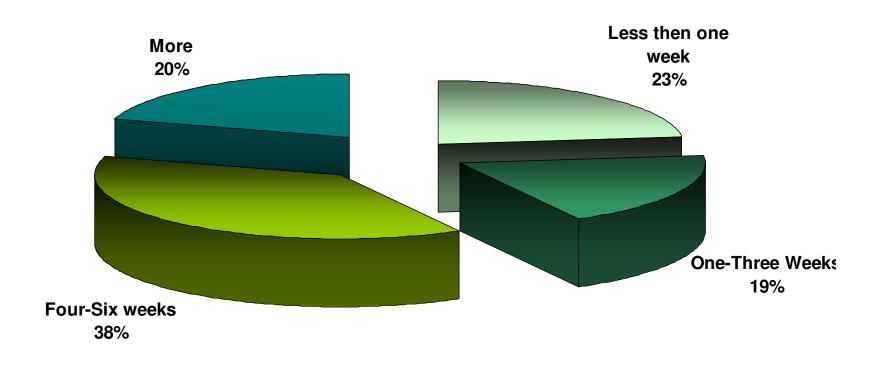


Employed IEB Survey- Salary





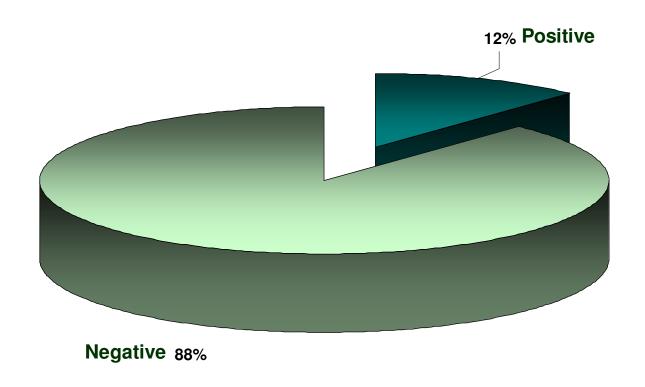
Employment Support Survey-Length of program



■ Less then one week ■ One-Three Weeks ■ Four-Six weeks ■ More



Employment Support Survey-Outcome





■ Did not find engineering job after attending this program

