Barriers, Bridges And Varying Degrees Of Tolerance For The Public Good: A Critical Examination Of Programs To Bridge Immigrant Access To Professions

10TH INTERNATIONAL METROPOLIS CONFERENCE
18 October 2005

UNDERSTANDING ORIGINS OF ASSUMPTIONS UNDERLYING PRIOR LEARNING, EXPERIENCE AND CREDENTIAL RECOGNITION

By G. K. Bambrah
Coordinator 'Engineering Access' Project

'Engineering Access' and CAPE

- *Engineering Access is a community research action project funded by Canadian Heritage and HRSDC undertaken by CAPE (the Council for Access to the Profession of Engineering)*

- *This presentation is based on research reported in a paper currently under publication entitled:*

'CANADIAN 'EXPERIMENTS' IN DIVERSITY – THE CASE OF IMMIGRANTS WITH ENGINEERING BACKGROUNDS SETTLING IN ONTARIO'

Three Components

The Engineering Access Project has three components:

- Documentation of employer needs and barriers to their profession facing immigrants with engineering backgrounds
- Building an effective and legitimate voice for immigrants with engineering backgrounds;
- Developing labour market information and Tools to promote cross-cultural understanding within the engineering workplace in Ontario

IEB Survey

- Under the Engineering Access Project an online survey of immigrants with engineering backgrounds (IEBs) was initiated in May 2004
- To date 986 IEBs from more than 70 countries have been surveyed
- This survey shows that recent IEBs
  - are more qualified than the host fraternity
  - Have over 12 years working experience on average
  - Yet nearly 85% are **not** in engineering jobs

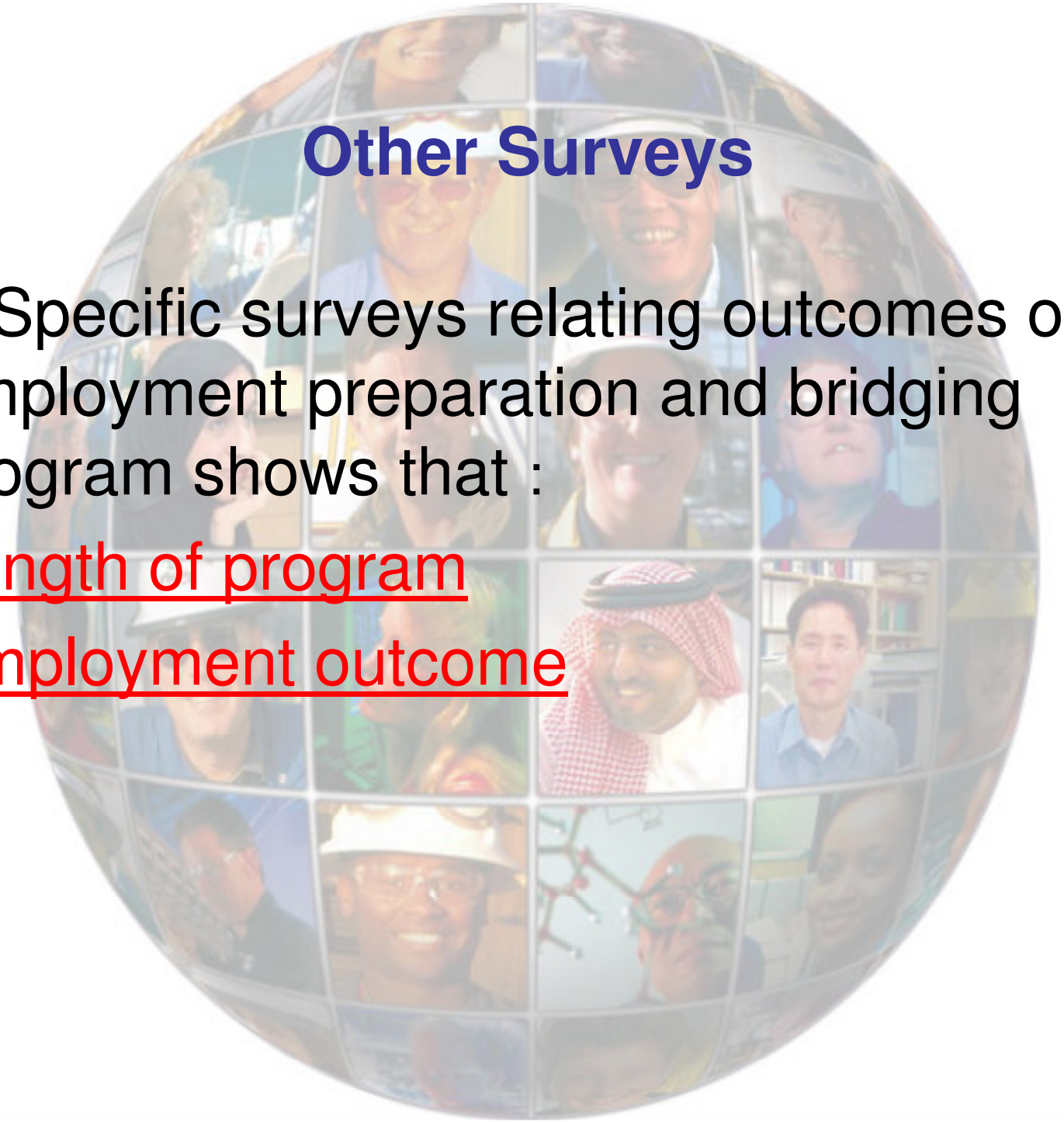
Detailed Findings

- 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

Prior Learning, Experience and Credential Recognition In Engineering*:*

The following are prior learning and experience recognition tools used for IEBs coming to Ontario:

- Reserved Title for Gate-keeping
- Equivalency comprising the following for recognition:
  - **Academic Accreditation – Individual By Individual**
  - **Experience Requirements Assessment?**

Basic Assumptions

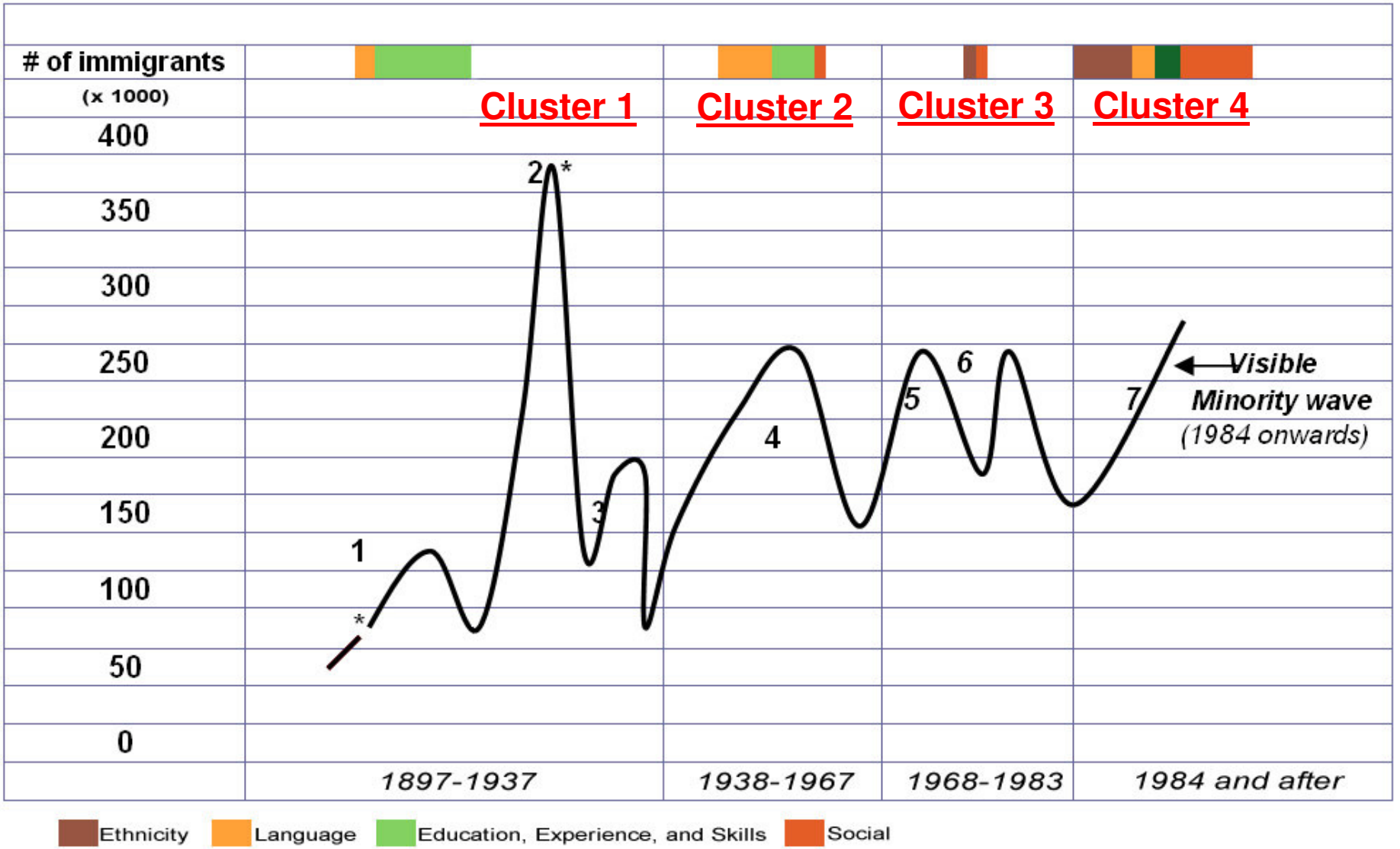
The following are assumptions made in developing these tools:

- Difference in education and experience represents a Deficit
- Equivalency is inherently valuable and desirable
- Difference must be bridged to create equivalency and gain access to professional employment

Who defines difference and why?

- Regulator – to protect the profession and the public
- Employer – to define labour market needs
- Others
  - **Training and education to bridge deficits**
  - **Advocacy groups to protect wages/equity**

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).

Closing Shop

"While neither the unionizing nor the professionalizing of engineers will ensure work where work is not to be had, nor fees where consulting services are not required, I believe that the latter will secure everything that the former will obtain, and with infinitely greater credit to engineers as a class" (Gillespie, 1920: 283).

BACK

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)*

BACK

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.

BACK

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 deficit/surplus
  - New Ethno-cultural engineering associations
  - Socially and ethnically disconnected from mainstream/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, under-employment 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))

BACK

Barriers, Bridges and Varying Degrees of Tolerance for the Public Good:

- Higher levels of education – deficit?
- Global experience – negated
- International Credentials – denied legally by reserving titles
- Canadian experience – inaccessible and undefined
- Equivalency Criteria for experience not defined
- Accreditation, Language training and testing underdeveloped and not synchronized federal/provincial levels
- Employment support – de-legitimizing credentials and experience

For public good

Should we continue to pursue a vision of 'Canadians First' rather than 'Canada First'

or

Should we rise to the challenge of our workforce integrating those who in our midst can bring new knowledge to make Canada a force to reckon with on the global stage?

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

THE END

Toronto- October 2005

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

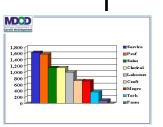
Next

IEB Survey- Range of disciplines (Continued)

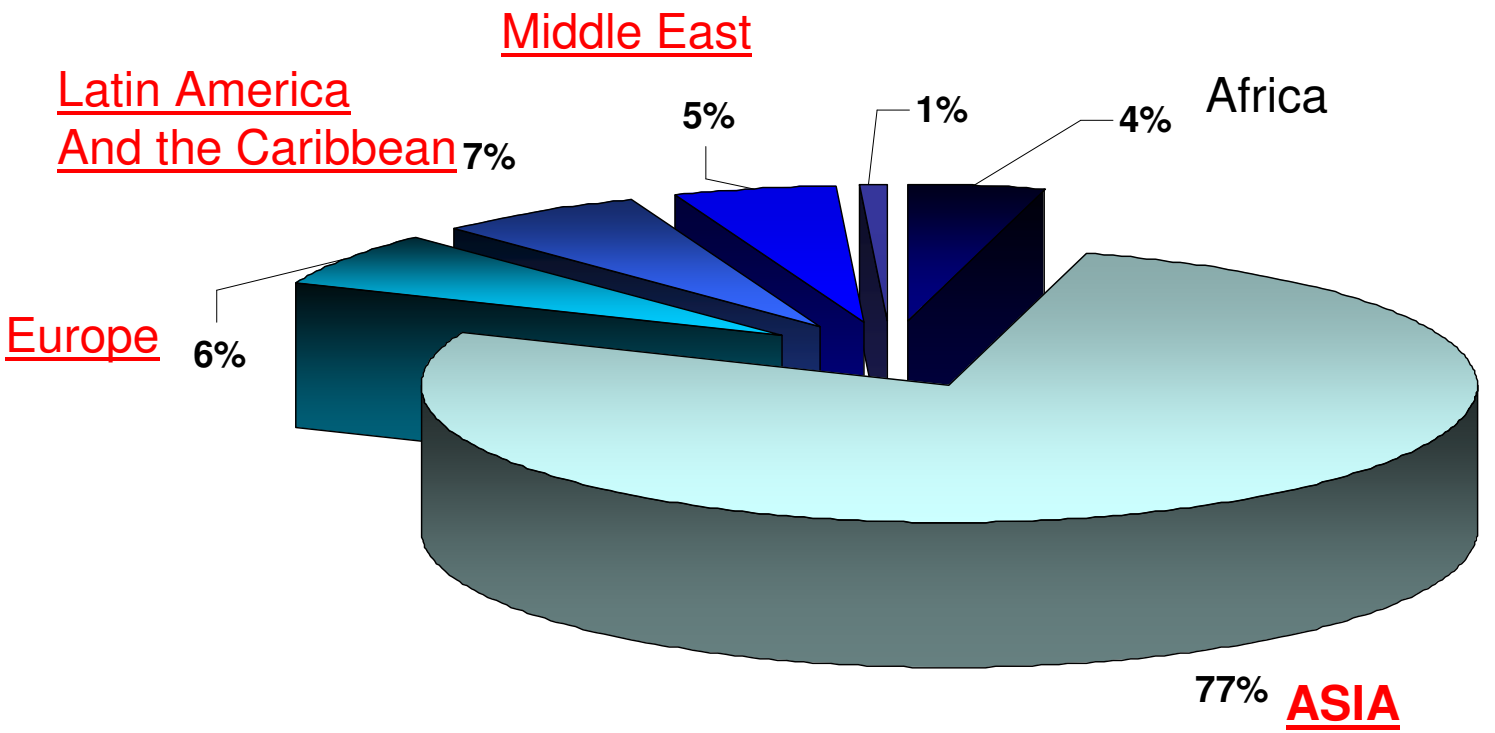
Engineering Discipline	Number
Metallurgical and Materials Engineering	21
Engineering Inspectors and Regulatory Officers	16
Industrial Engineering and Manufacturing Technologists and Technicians	15
Petroleum Engineering	14
Aerospace Engineering	13
Mechanical Engineering Technologists and Technicians	13
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

BACK

chart

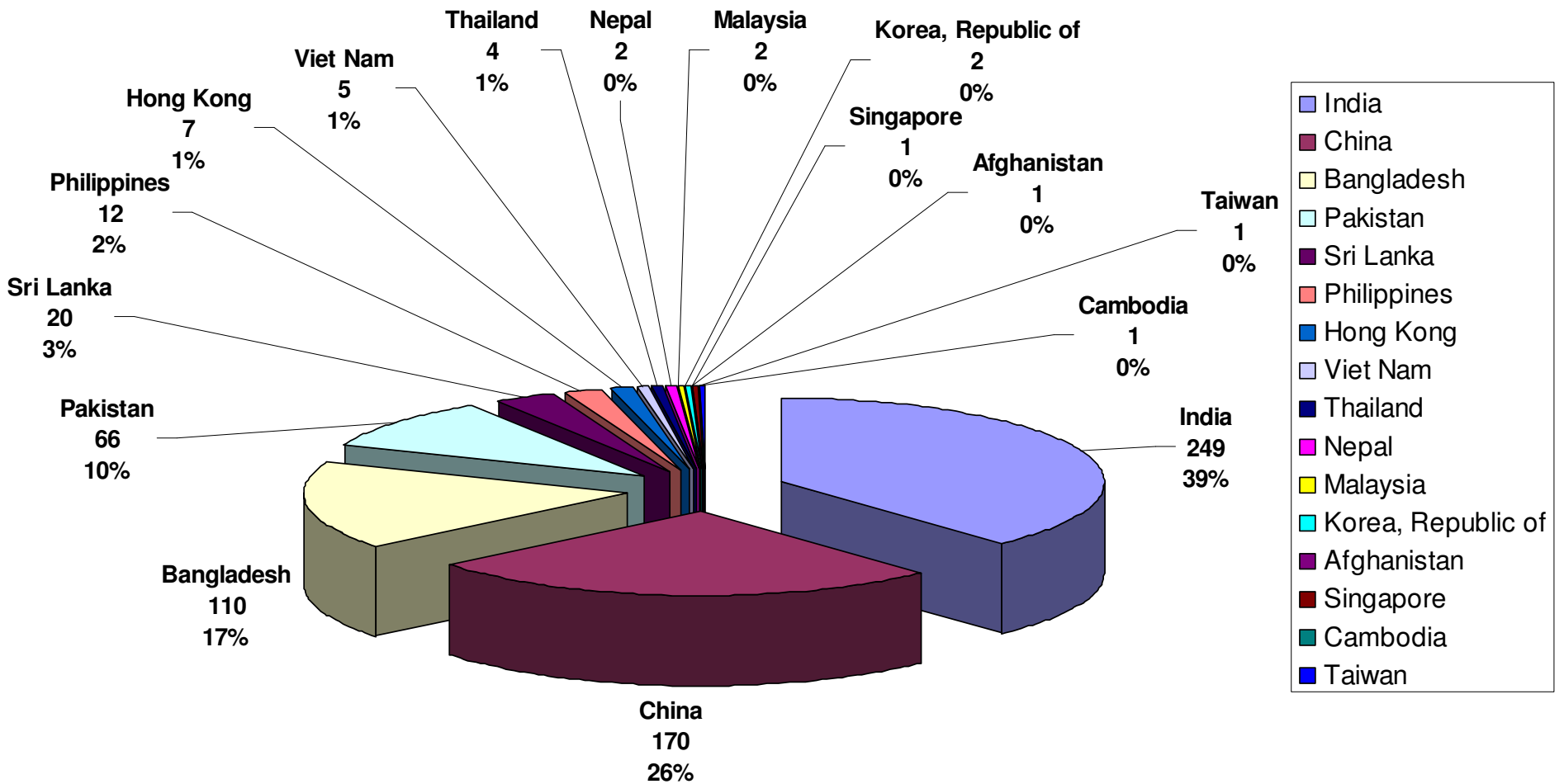


IEB survey- Number of members from different regions



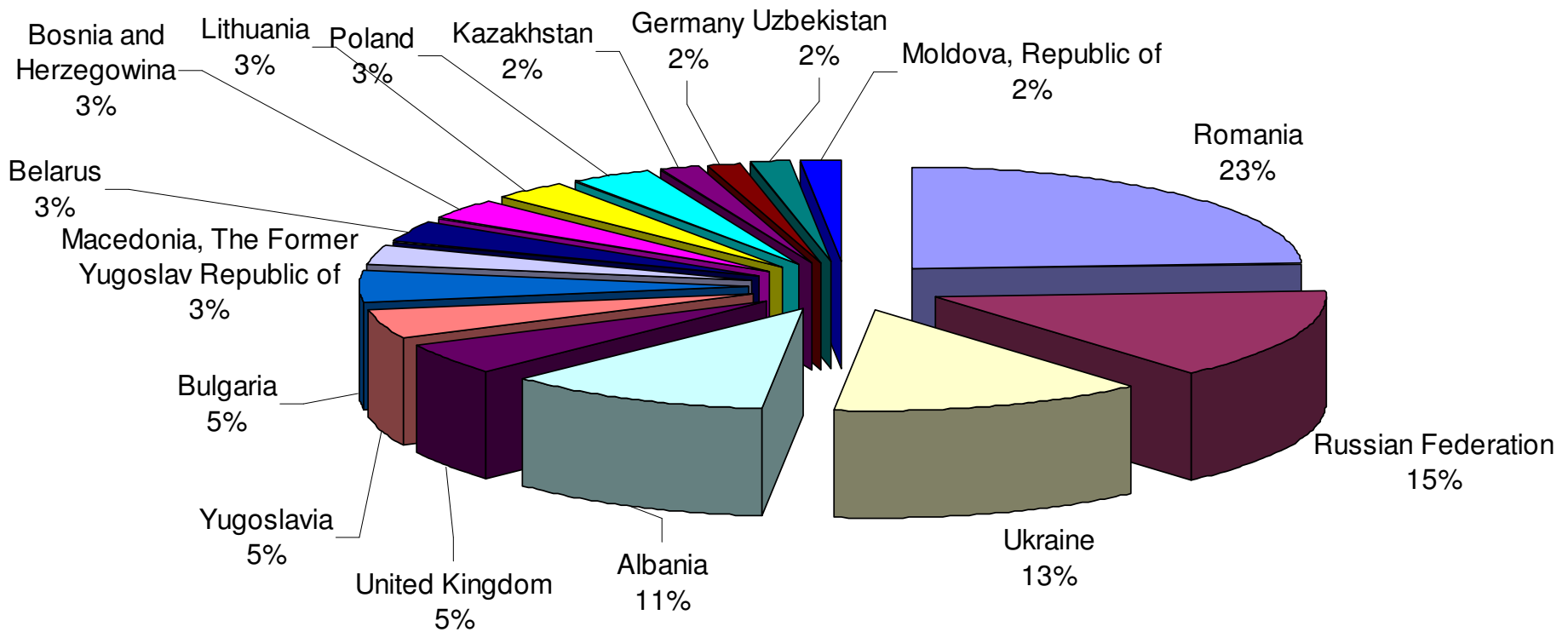
BACK

Members from Asian countries



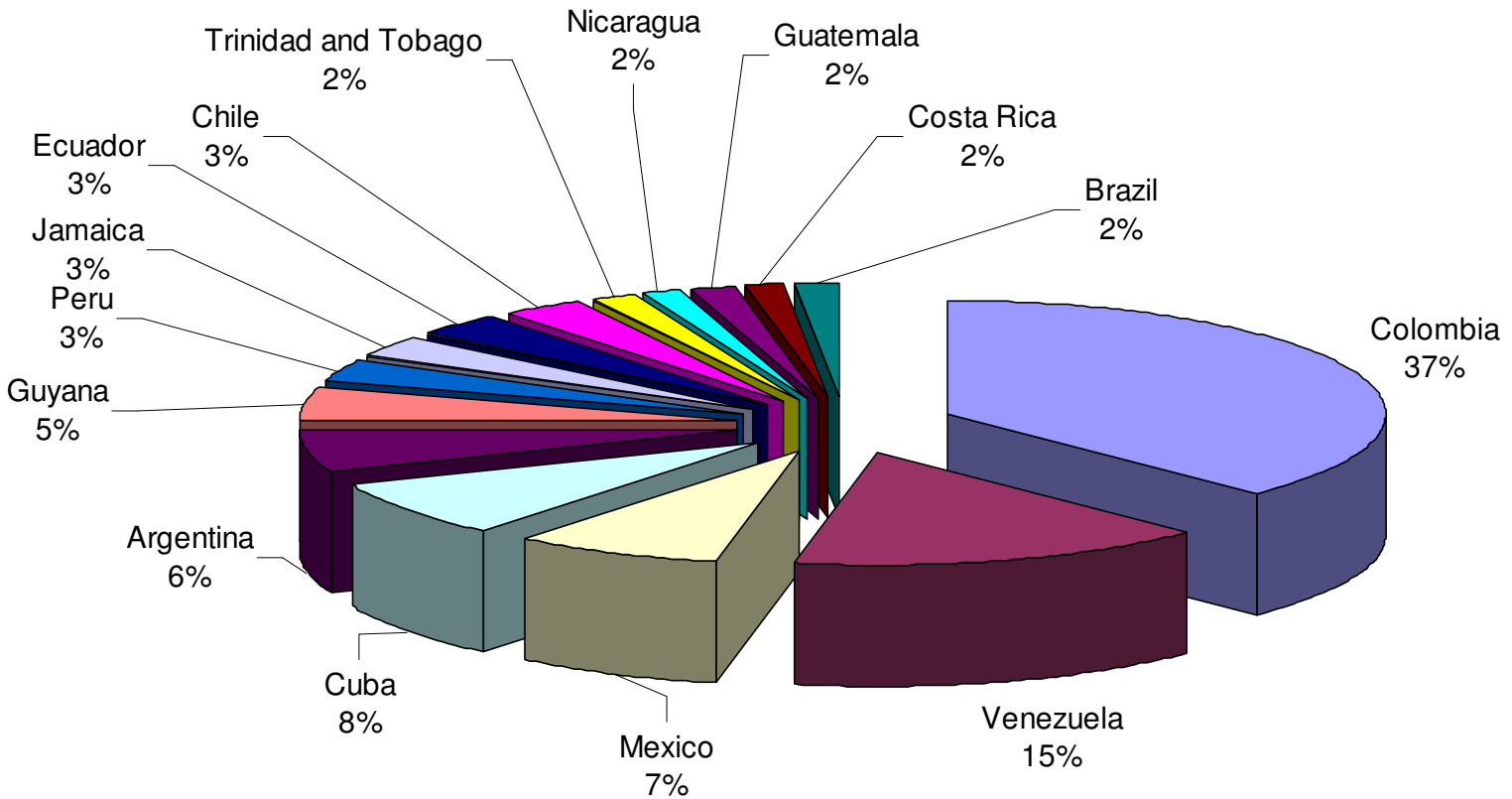
BACK

Members from European countries



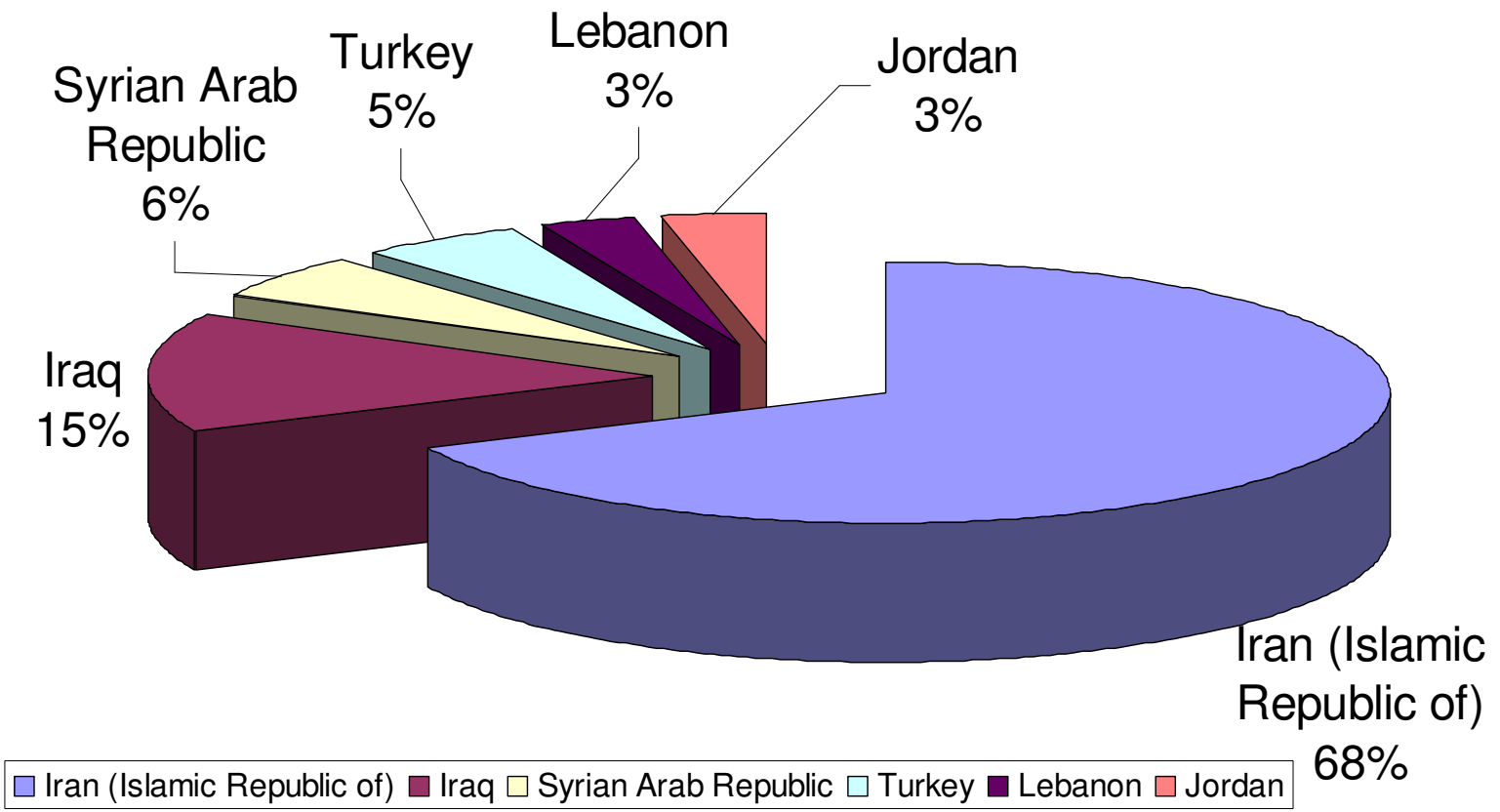
BACK

Members from Latin American and the Caribbean countries



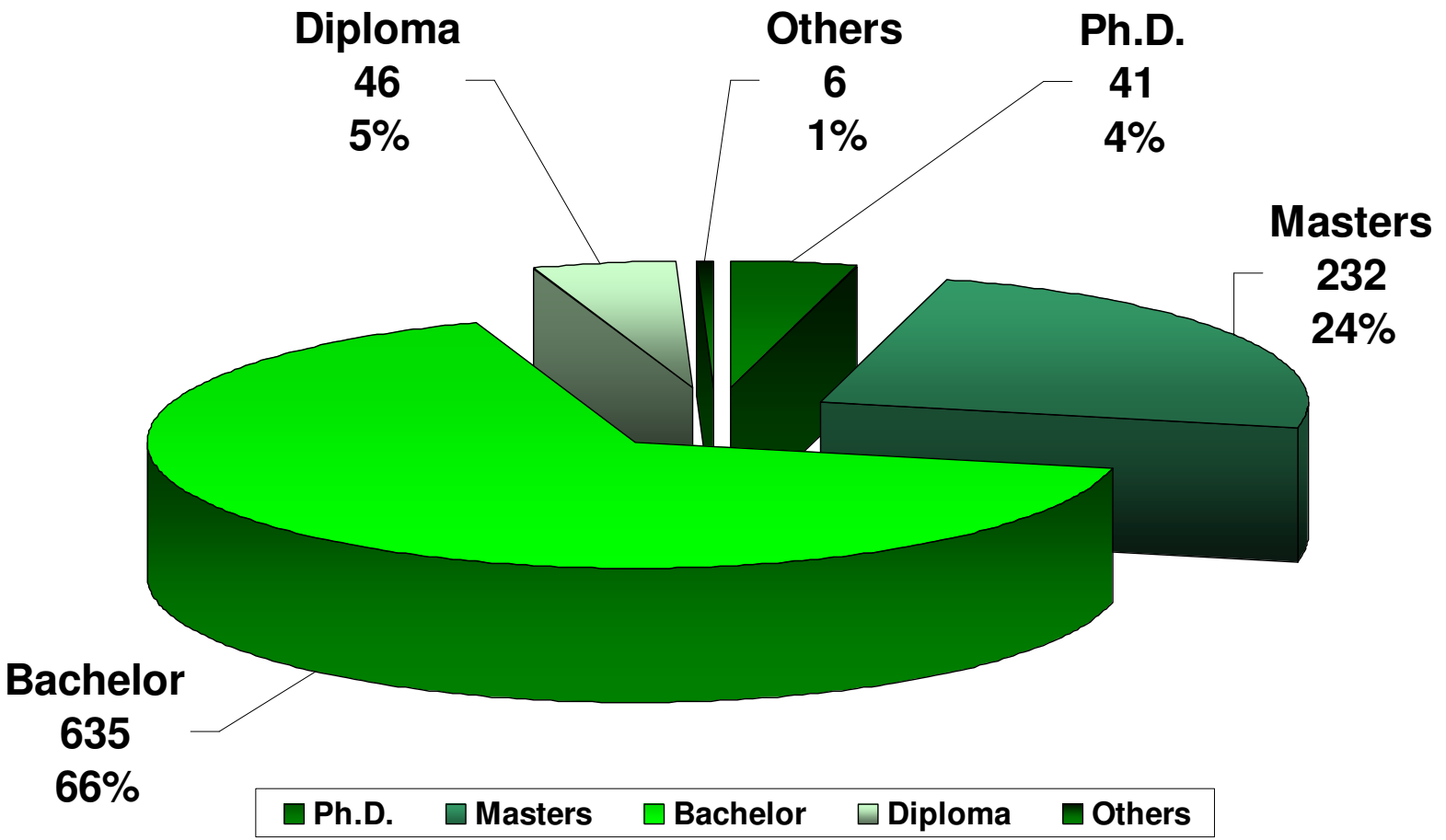
BACK

Members from Middle Eastern countries



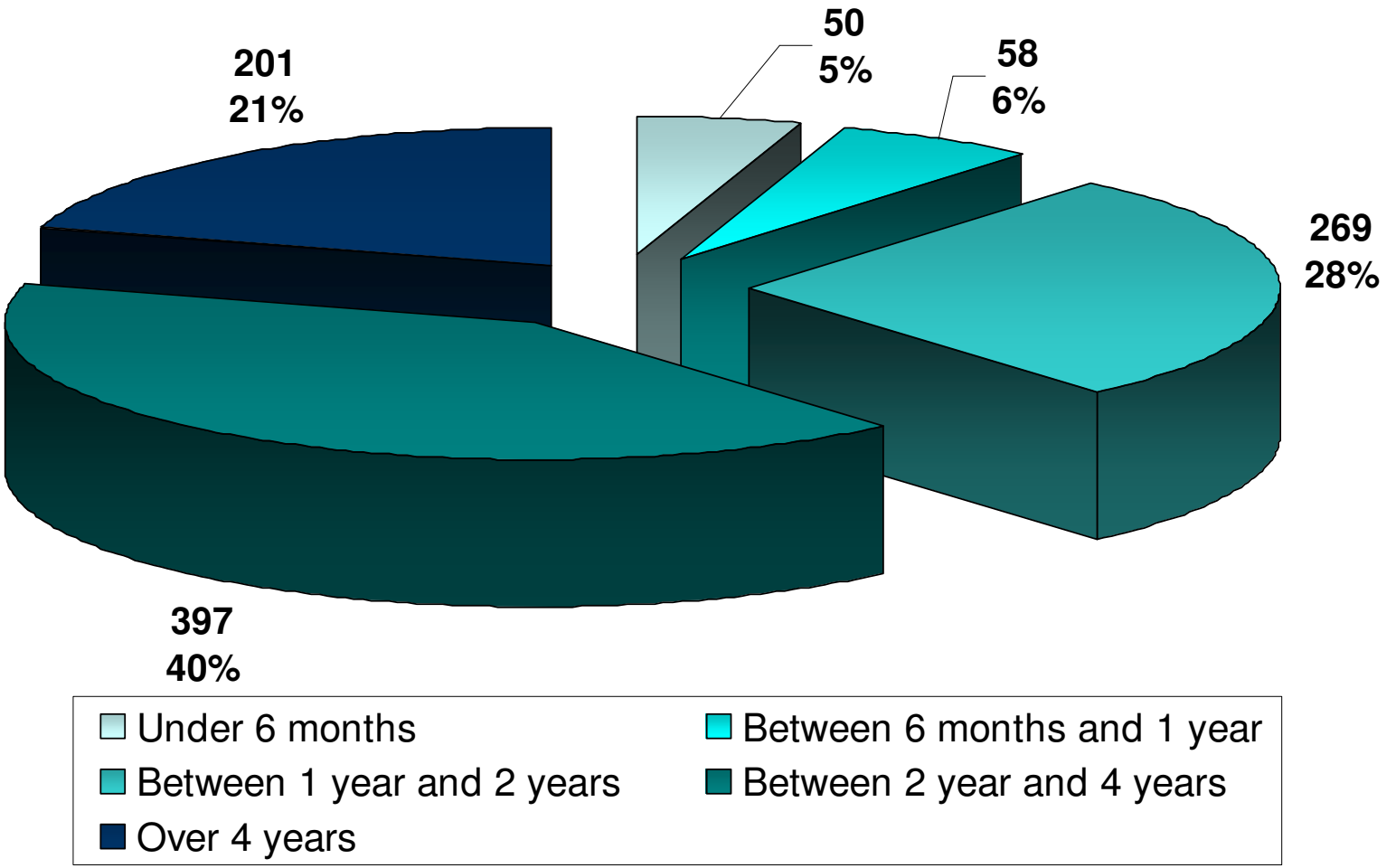
BACK

IEB Survey- Range of qualification



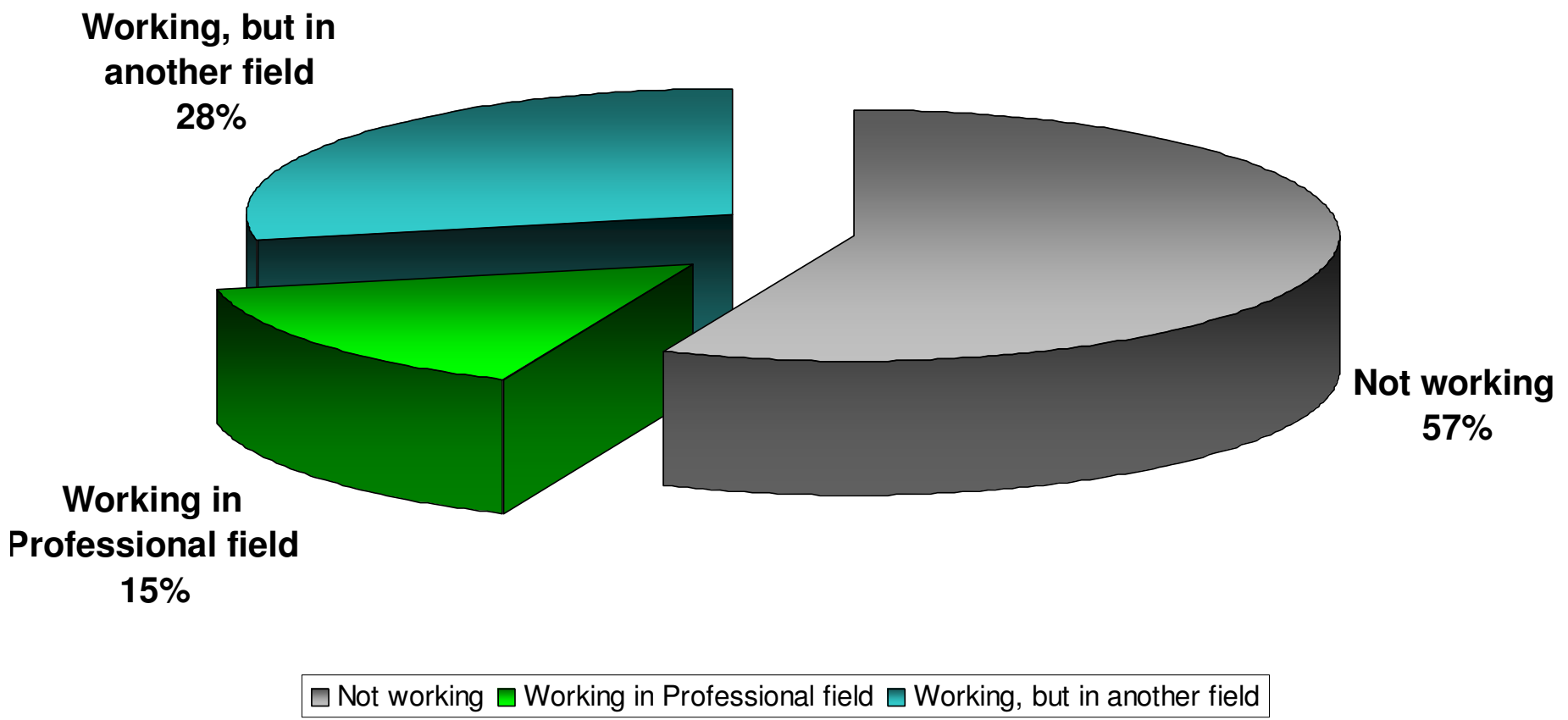
BACK

IEB Survey- Length of stay in Canada



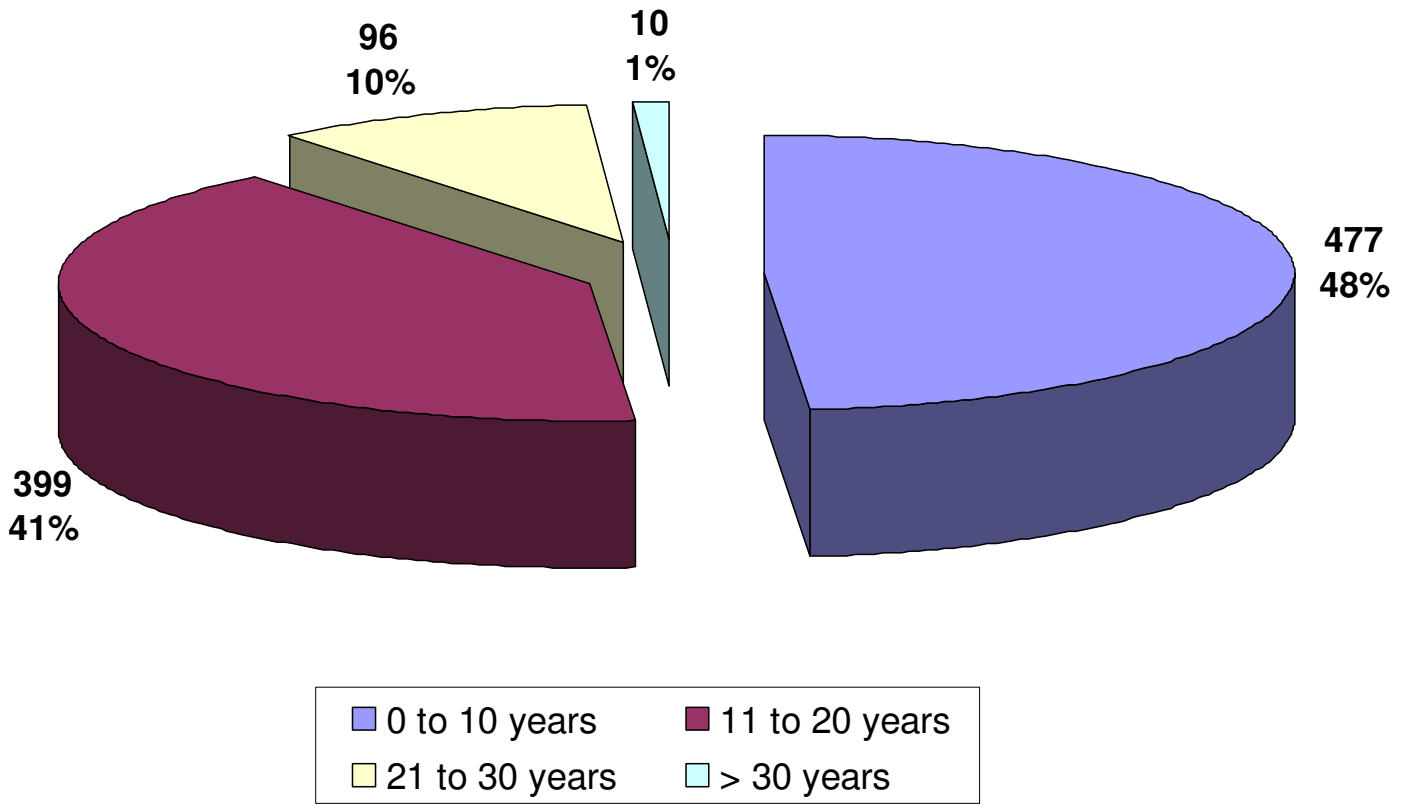
BACK

IEB Survey- Employment Status



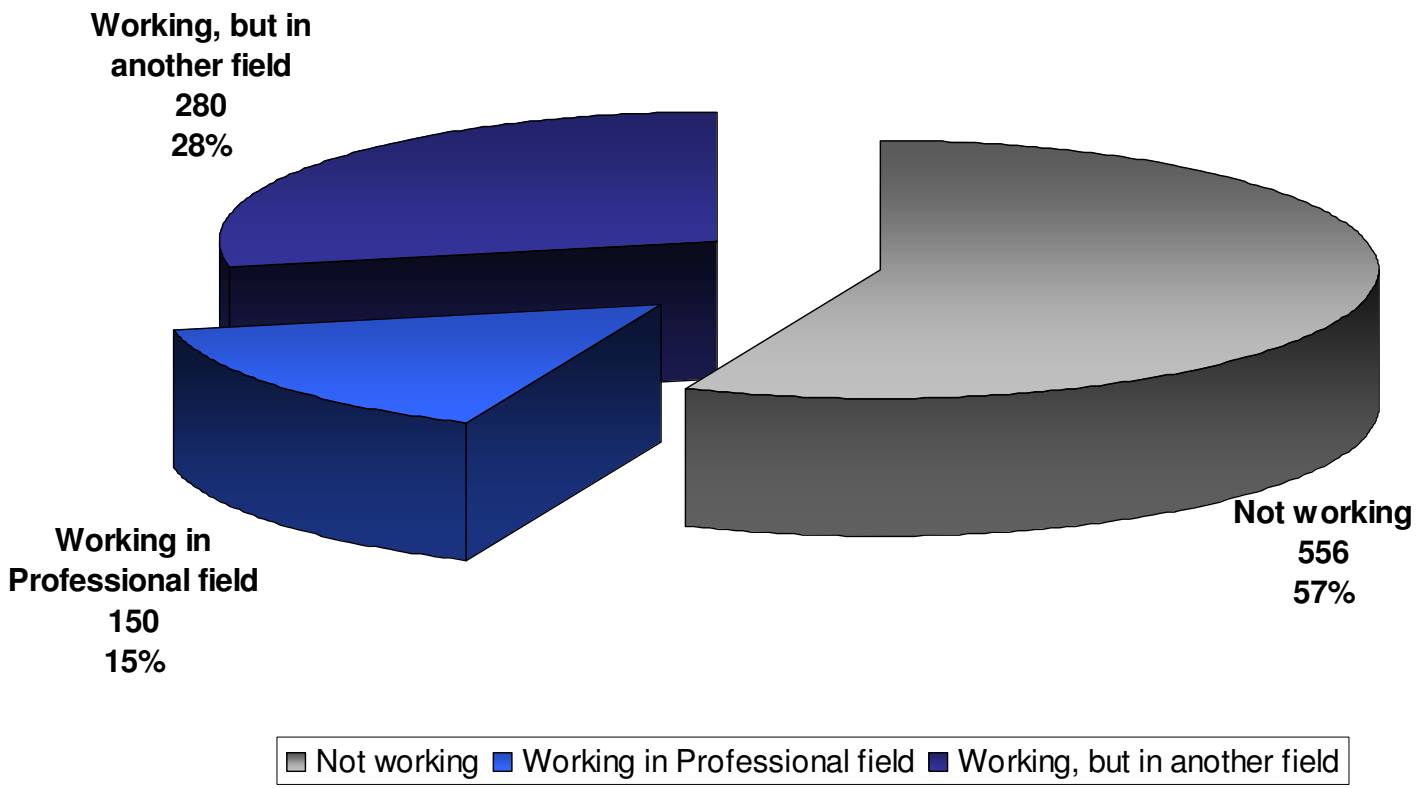
BACK

IEB survey- By years of engineering experience



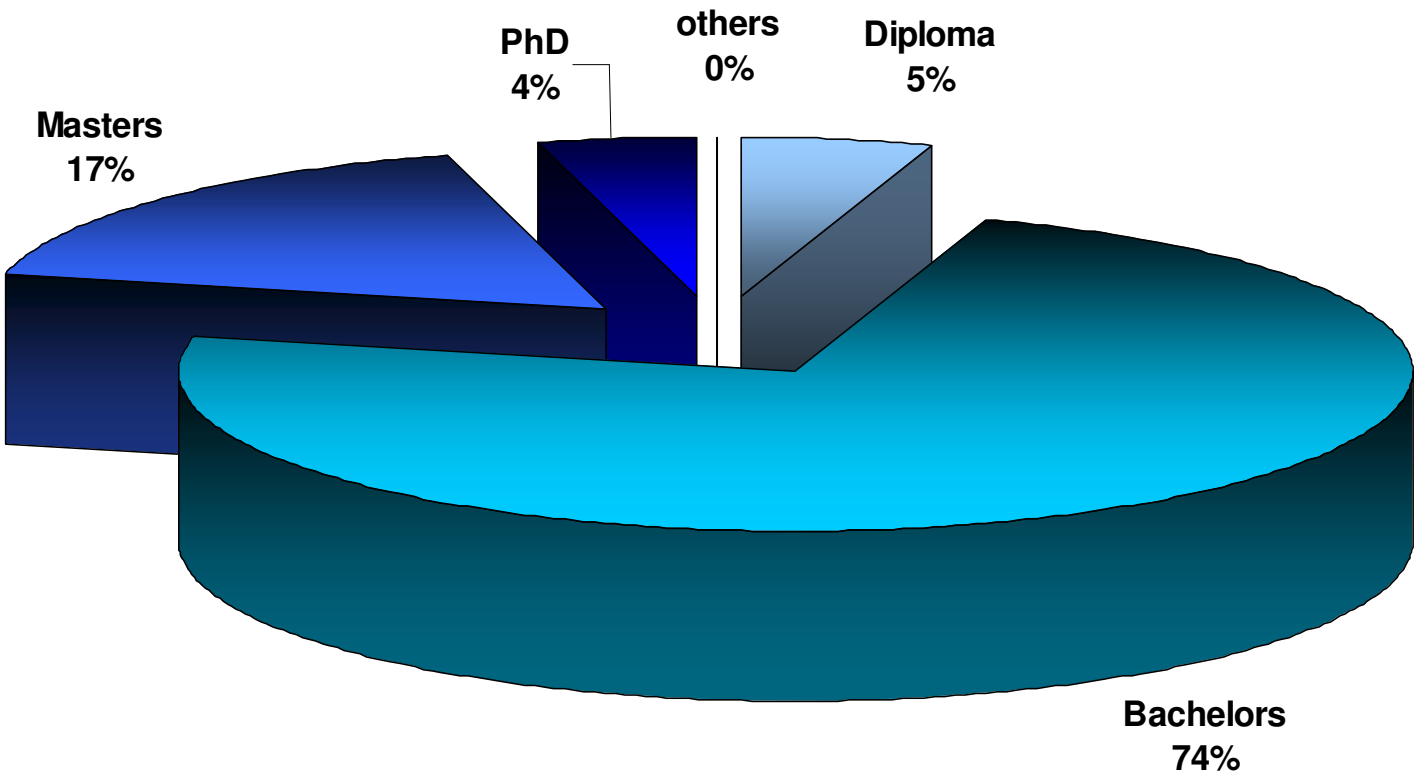
BACK

IEB Survey-Employment Status



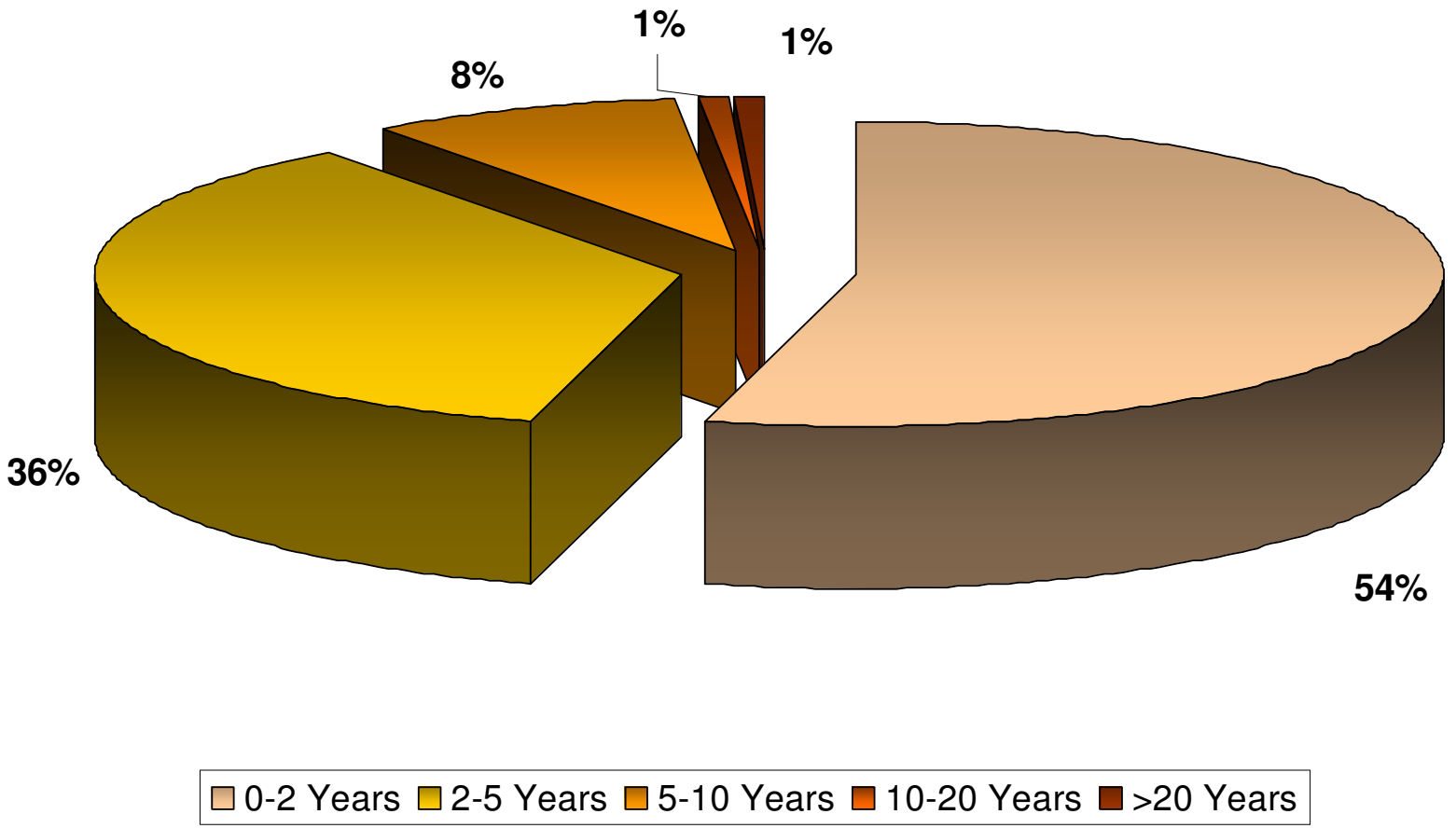
BACK

Employed IEB Survey-Range of qualifications



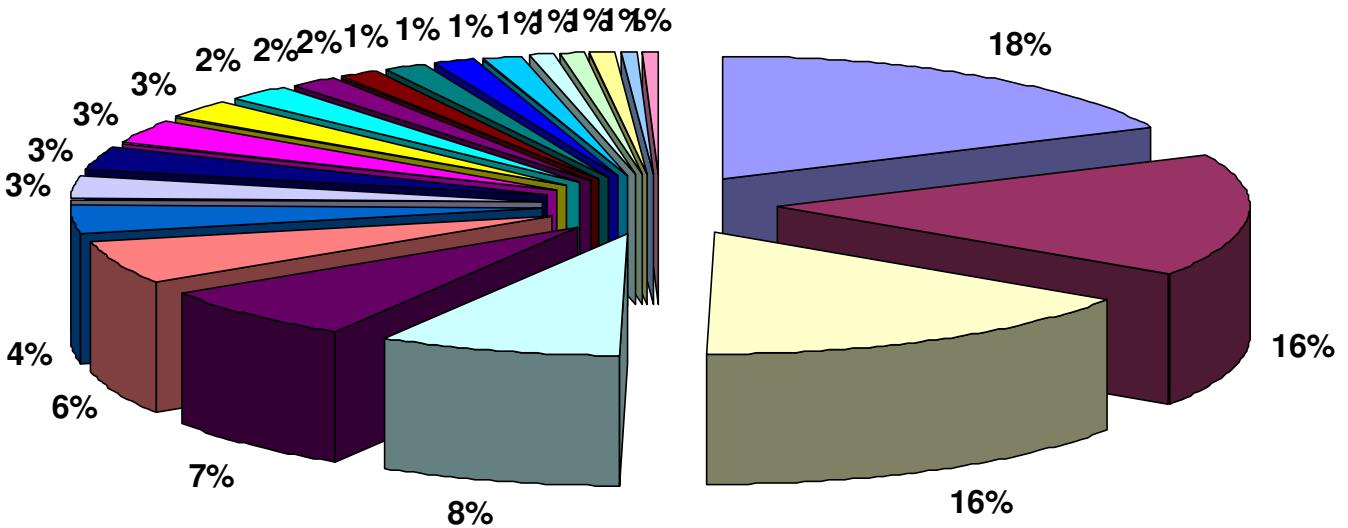
BACK

Employed IEB Survey-Length of stay



BACK

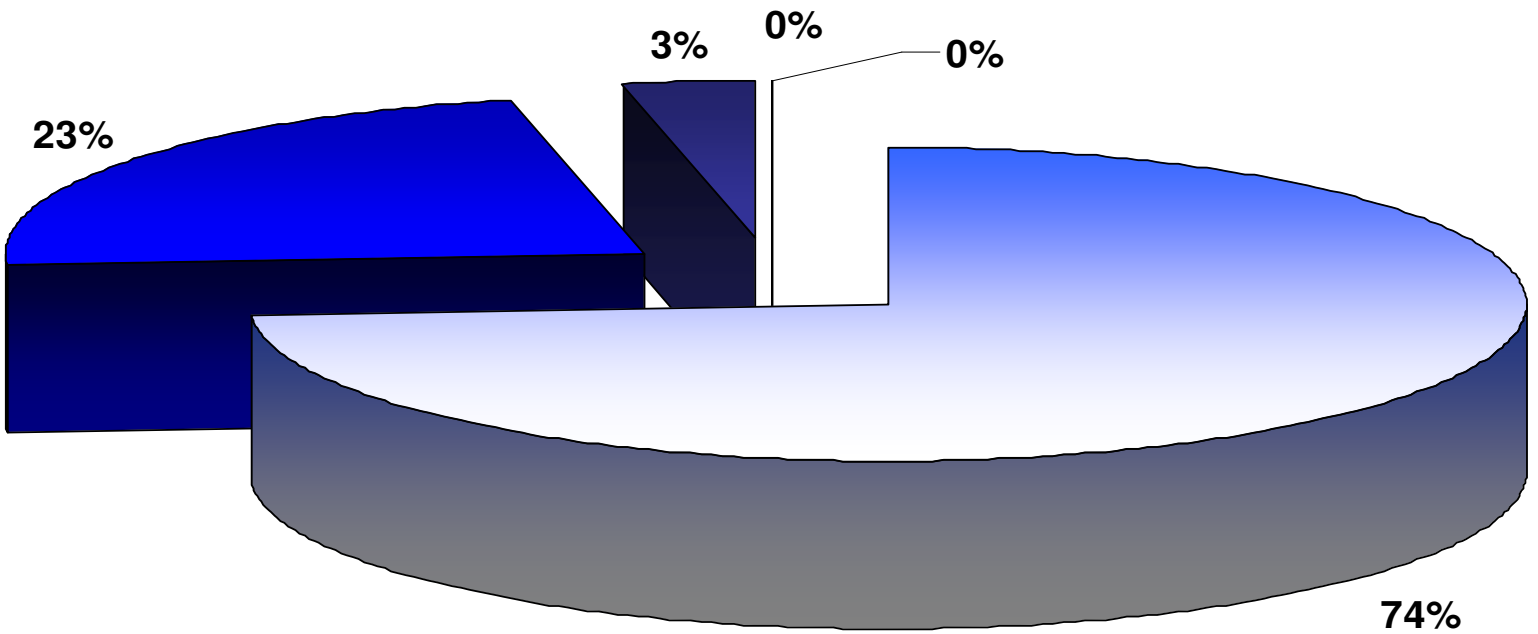
IEB Survey-Range of disciplines



- 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

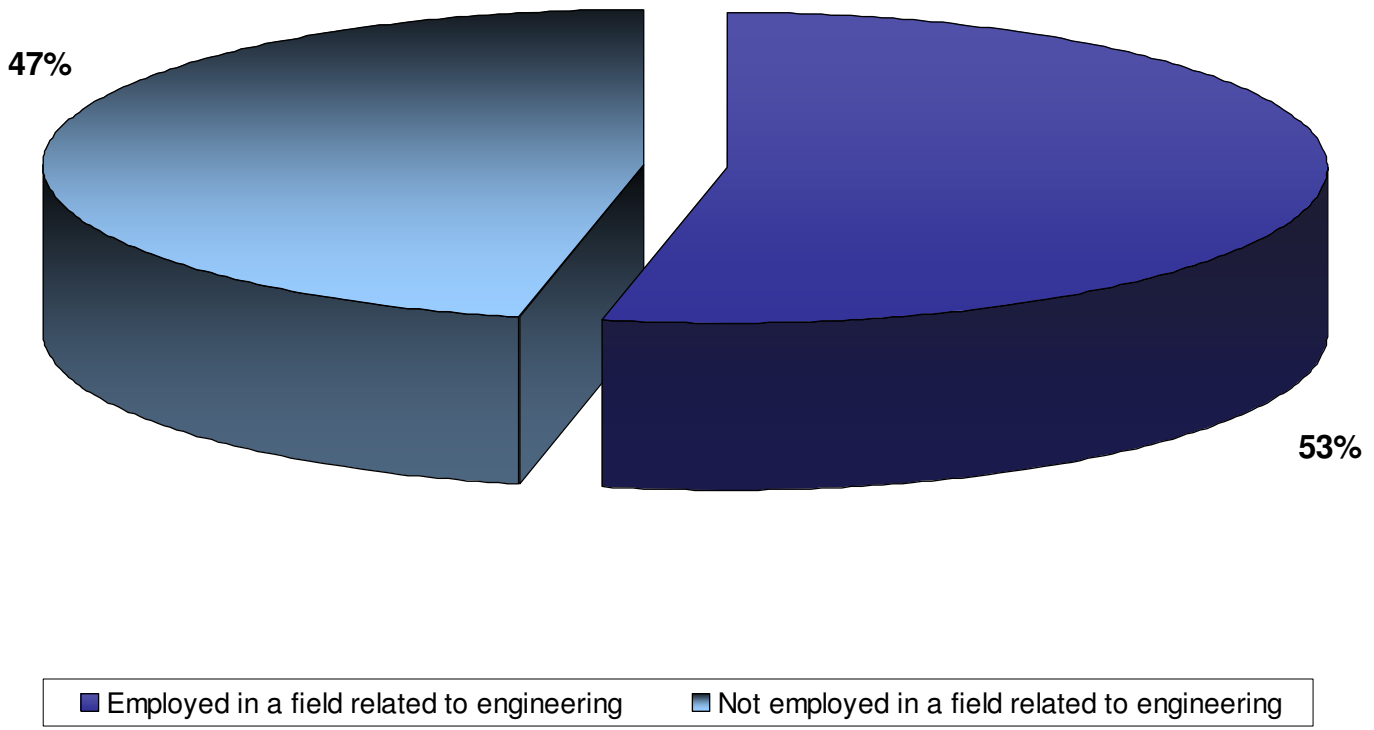
BACK

Employed IEB Survey-By years of engineering experience



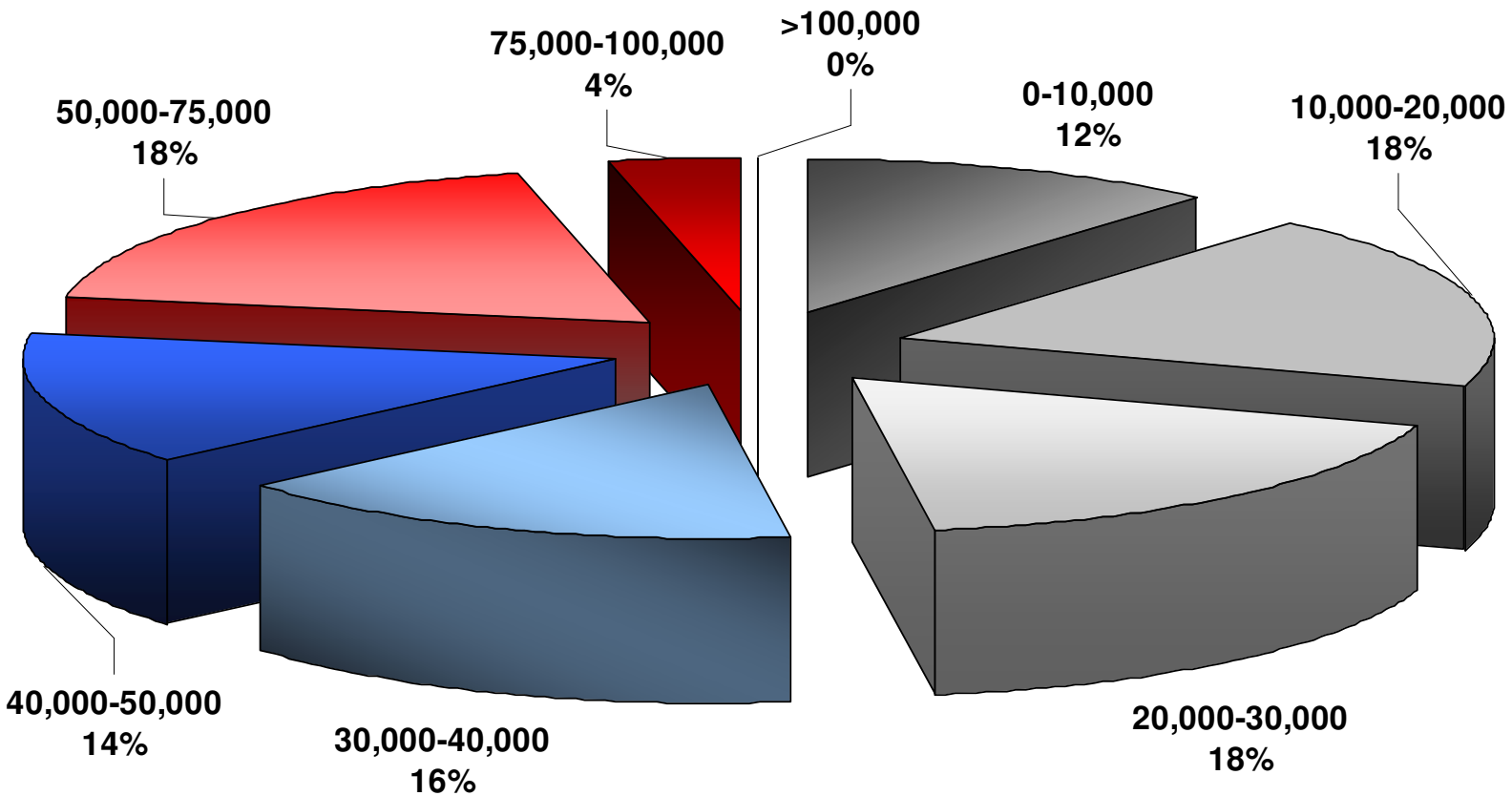
BACK

Employed IEB Survey- By Employment



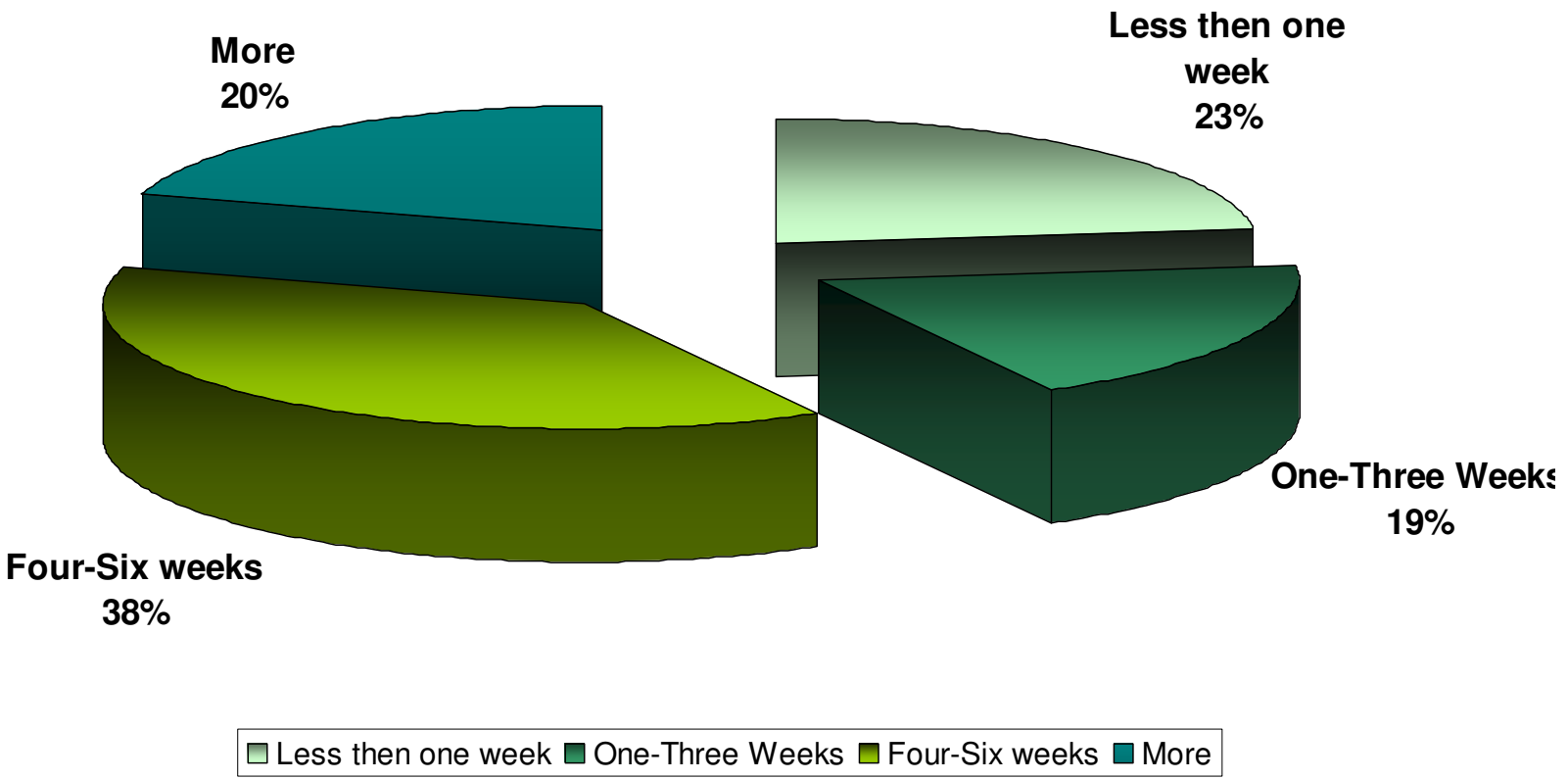
BACK

Employed IEB Survey- Salary



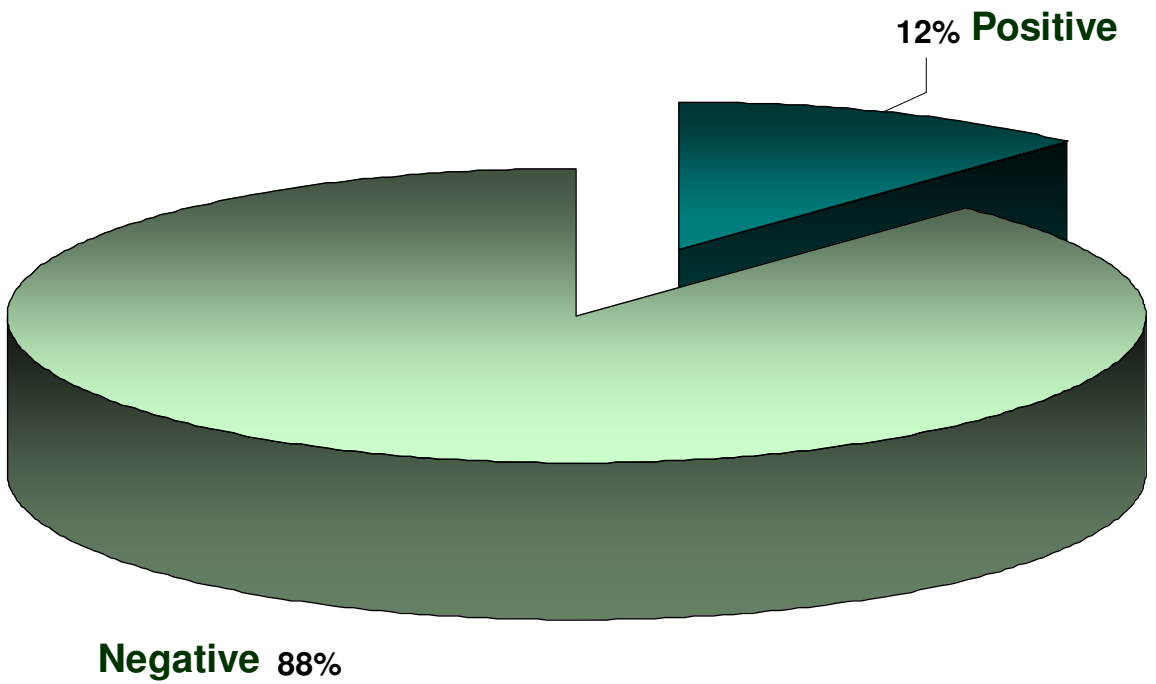
BACK

Employment Support Survey-
Length of program



BACK

Employment Support Survey-
Outcome



BACK