

Relations with Israelis Abroad, The Academic Point of View

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What is happening in the current economic crisis?



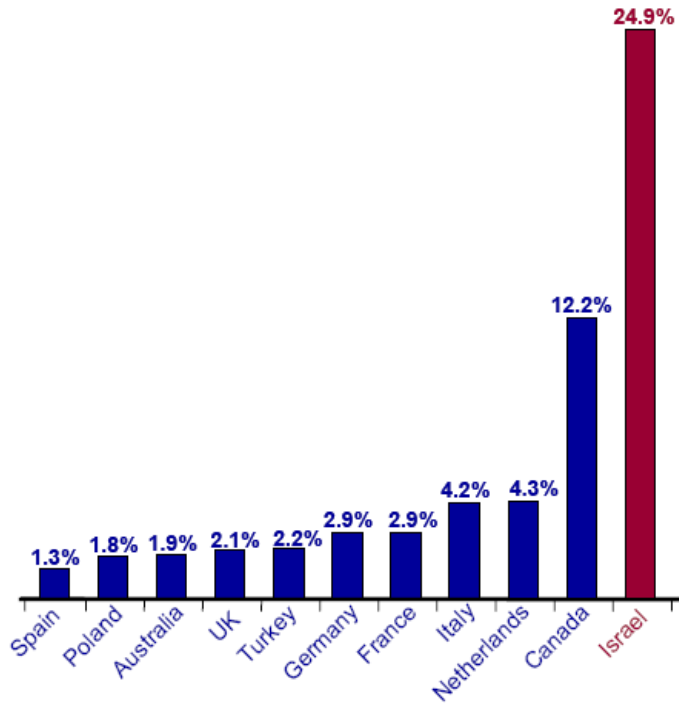
- The current crisis is here to last a couple of years, technology oriented countries are preparing now the future technologies for better days
- The crisis brings many Israelis abroad to worry about their professional future and welfare
- The world is a global village, the engineers and scientists are the “nomads of the world” and language is not preventing it
- The balance of scientists and engineers immigration in Israel is negative, today many look for an opportunity to come back here
- Countries like Russia, China, India and others launched recently aggressive programs to bring “brain power” back
- This is a good time to tighten the relations with our “brain power” abroad for the benefit of both parties.
- We shall bring few new proposal in this talk, some already active and some only at paper level

The World Status Today



Foreign Scholars in U.S. Universities

as percent of academic scholars in home country, 2003-4



source: Dan Ben-David, "Brain Drained" (2008)

data from OECD, European Commission, Israel Higher Education Commission, Statistics Canada and Australian Department of Education

- The number of foreign academics in developed countries is very large:
 - The USA is a favored immigration country, 25% of the university graduate employees in 2003 were not born in the USA. More than a third of Ph.D students and more than half of the post docs, are foreign. The EE times, 2008 describes a similar picture.
 - The number of Israelis in science and industry is very high compared to other countries (see diagram)
- What do others do in this crisis:
 - China launches a program to double the amount of engineering graduates
 - Russia launches a "Repatriation" program led by Mrs. Putin
 - India Launches a program, enabling dual citizenship
 - Ireland, UK and others launch their programs for bringing engineers and scientists back home

The Situation in Israel



- The technology teaching universities are placed high, on a world scale
 - Technion in the 29th place, TAU in 127th, Ben-Gurion 204th and HUJ 209th worldwide
- We have a shortage in university staff and university graduates
 - 75% of the university researchers in physical sciences are older than 51 years. The same applies to engineering.
 - The Universities and Colleges do not “Produce” enough engineers and scientists, as B.Sc. M.Sc and Ph.D.
- The Industry needs more engineers and scientists, the future looks more demanding
 - The number of graduating students is less than the need to replace the retiring engineers and scientists in industry
 - There is already a need for Medical Doctors, Organic Chemists, Electrical engineers and lately Mechanical engineers as well
- The number of high school graduates with 4-5 units in Math, Physics, Chemistry is lower than needed for the universities

The Proposed Effort



Existing efforts:

- A wide front program for inverting the “Brain Drain”
 - The Manpower committee, Israel National Council for Research and Development, leading the effort
 - Government decision 25.1.09, Director General task force
 - Web site for scientists, engineers and industry
 - The association of industries offer

Proposed efforts:

- Sabbatical year of scientists abroad – to come and teach here
- Undergrad schools for foreign students in all 7 universities
- Graduate schools for foreign students in all 7 universities
- A year in Israel for professional upgrade:
 - Nanotechnology
 - Solar energy

Thank you!