

The impact of globalization on the brain hunting and the brain drain (Case study – Israel)

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Abstract: The impact of globalization on the labor market is at critical stages for all countries. We are witnessing a massive immigration of skilled labor from one country to another. Some countries have developed a declared "brainwashing" policy to fulfill all the service functions required to sustain the country's economy. This article attempted to review what was happening in the world and in Israel.

Keywords: globalization, labor force, immigration.

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Introduction

From the beginning of the 1990s, globalization has led to growth in the global economy on the one hand, and on the other, far-reaching changes in many areas. The new technologies have changed the division of labor and the ratio of capital to labor. Many cases where technology replaces manpower; there is a change in the skills required of employees - the demand for highly skilled workers (ICT), especially for workers with new skills, such as information and communications technologies. In addition, the demand for low-skill workers has changed, and production employment has been reduced, especially in developed countries, due to the shift in production to developing countries. On the other hand, there has been growth in services. In addition, new markets were created and accelerated liberalization of movements of capital, people, products and knowledge. The activity of multinational companies has grown, as has their influence. In light of this, the borders between the two countries began and the formation of the "global village" increased international migration in general, and that of power work in particular. In recent years, the movement of jobs has also increased. This phenomenon has become an alternative to people's movement. And it now allows international employers to reduce costs by shifting jobs (such as ICT - the revolution of office and service delivery) to developing countries (Appadurai, 2001).

The effects of brain drain and brain drain

As mentioned, countries tend to view the migration of skilled labor as a brain drain. This trend is arousing in them and is especially acute among developing and less developed countries with a transitional economy in which unemployment rates are high. These countries "lose" skilled labor to industrialized countries

where there is a high demand for ICT for workers, including skilled workers, particularly in the information and communication technology sectors (Hugo, 2002). In general, it is commonly believed that the phenomenon of brain drain imposes costs on the state and thus impedes its economic growth. The most prominent costs to the state are loss of return on investment in education and loss of tax revenues. These findings are supported in the research literature; Thus, for example, the International Labor Office (ILO) notes that there is substantial evidence of the positive impact of the ILO's level of human capital on productivity and growth, while a low level of education resulting from a high level of skilled labor migration is expected to slow the rate of growth. The economy has a negative impact on the population that remains in the country, and the emigration of a skilled labor force also has social effects, for example, the migration of skilled labor in medical care (doctors, nurses, etc.) may affect the quality of the country's health services (Auriol, Sexton, 2002). Experts, because some emphasize the positive effects of immigration workers, the impact and scope of the effects differ in each country (depending on its size and level of development), and depend on the economic sectors (public versus private) and the type of migration (temporary, permanent, cyclical).

Brain Drain and Brain Hunter - migration of professional labor force

The process of globalization and new technologies has changed the division of labor and the relationship between capital and labor in the world. This trend has led to the international migration of a labor force, including a skilled labor force. In the review of the literature on the migration of skilled workers, the concept of "brain drain" also appears alongside the term "brain drain." Both terms appear in the broader context of brain exchange or brain drain. The phenomenon is that skilled workers migrate to places where they are offered a job that matches their qualifications and training, that is to say, brain mobility is about two-way migration of expertise between a country of origin and a destination country (Hugo, 2002). From it or from brain recruitment to it - in accordance with the direction of the flow, both to the brain drain and to the recruitment of the brain. Positive and negative comments on the countries of origin of the skilled workers and their target countries.

- **The main positive effects on countries of origin** add to the contribution to productivity and economic growth with the return of skilled workers to the homeland. They return with education, managerial experience, entrepreneurial skills, and knowledge and access to global networks and bringing with them foreign investments. In addition, migrant workers in the Diaspora may invest in the country of origin and transfer money to it.
- **The main positive effects on target countries** add to the demand for skilled workers, thus contributing to the flow of knowledge, skill, productivity and economic growth.
- **The main negative effects on the countries of origin** add to the level of human capital; the loss A return on national investment in education, training, and higher education; As well as loss of income Solvents. Thus productivity, the creation of value added and economic growths are affected. It also has effects Social issues.
- **The main negative effects on the target countries** add to the erosion of wage levels in the sectors in the labor market, and in the diversion of technologies and scientific achievements to foreign competitors, and sometimes even Hostile countries.

The Characteristics of brain drain from Israel in 2005-2015

In the ranking of brain drain in 47 developing countries, Israel **was ranked 21st** the brain drain from Israel is average compared to other countries. In a recent study conducted by "**Shalem Center**" on brain drain from Israel, it was found that the tendency to emigrate from Israel, among those with higher education, is higher than the tendency among those with a low level of education. Israel faces a problem with the manpower infrastructure in academic research in Israel. In recent years there has been deterioration in the level of higher education in Israel and erosion in public funding. As a result, the research and teaching infrastructures in institutions of higher education are damaged, leading to a loss of leading researchers, and thus the State of Israel does not benefit from the fruits of its investment. In 2016, approximately 15,000 Israeli students were mobility to institutions of higher education abroad; about 66% of them are in four countries: **United States, Britain, Germany and Italy**. Half of them (about a third of the total Students) were registered in institutions in the US More than 50% of Israeli Students who have completed a Ph.D. in the US, are still there five years after completing their doctorate.

Raising brains for Israel: in the 1990s, about 60% of immigrants from the former Soviet Union, over the age of 18, Secondary or university degrees. More than 90% of them were employed before immigrating to Israel, of which 66% are in higher education subjects. 38% were employed in the sciences and 22% in other professional and technical positions. According to economists, this recruitment of brains and the integration of highly skilled workers in the economy and in society led to the high annual growth in GDP (7% -6%). **In the Years 2002 -2012, from 15,000 scientists and research and development engineers who immigrated to Israel in the 1990s, about 80% were absorbed working** in their area of expertise. With the help of the various programs of the Ministry of Immigrant Absorption and the Ministry of Labor and welfare in general absorbed, about 40% of the immigrants in their profession or in a similar position. From 80,000 immigrants to Israel who specialized in the various engineering professions, only about a third was placed in a similar profession or position. Almost half of the immigrant doctors who obtained a medical license found work as physicians. In 2010, only 24% of the immigrants were from science and academic subjects and from other technical subjects. Between 2014 and 2013, 34,000 persons aged 15 and over immigrated to Israel, 16% of whom were in the scientific and academic professions, and another 20.2% were professionals, technicians, and the like. In Israel, various programs are implemented to provide assistance and training to new immigrants and returning residents to encourage entrepreneurship and employment absorption (<http://www.economy.gov.il/RnD/pages/default.aspx> , <http://che.org.il/>).

Migration of Highly Skilled Workers ("Skilled Workers") from Israel

Later on, the term "skilled workers" is used to refer to highly skilled workers. It is difficult to define who skilled workers are. There is no international definition, let alone an accepted one. In addition, the background to the migration of skilled workers, the nature and extent of immigration, varies from country to country (Hugo, 2002). Therefore, it is difficult to collect data on the phenomenon, and the data presented by countries can not necessarily be compared to international standards. In common definitions, skilled workers are defined as employees with higher or equivalent education. There are some problems with these settings:

1. Many graduates of institutions of higher education are not employed in high-skill jobs;
2. There are jobs that require high skills, some of which require higher education, and some of them require training Other;
3. Sometimes skills are acquired through employment experience, or through a combination of education and training and experience;
4. There is importance to the manner and place in which the skill is acquired and the differences in the attitude of states Different skills;

There is therefore importance in universal recognition of different skills.

The positive effects of the brain drain and the brain hunter (Dzvimbo, 2004)

To the country of origin ("brain drain")	To the destination country ("brain hunter")
Payments and remittances to the homeland by remittances abroad contribute to the GNP and its indirect growth (assistance to the family that remained in the country of origin, investments, asset maintenance, etc.) The volume of transfers worldwide is estimated at \$ 100 billion per year, Sixty percent of these are transferred to developing countries, and an estimated \$ 50 billion is being channeled through non-official channels.	Demographic impact, especially in the OECD countries, where High rates of aging and low birth rates: Because migrant workers are usually young people, the average age of the country's population declines and birth rates rise.
The possibility of migrating to countries where wages are higher than the may encourage the acquisition of higher education in the homeland, in the hope of improving the conditions of wages abroad.	Flow of knowledge and cooperation with countries of origin.
Opportunities for technology export; Knowledge flow and cooperation with other countries; Increased ties with research institutions abroad.	Opportunities for technology export; Knowledge flow and cooperation with other countries; Increased ties with research institutions abroad.
Encouraging trade with other countries and integrating into international markets.	Encouraging trade with other countries and integrating into international markets.

Source: http://www.worldbank.org/afr/teia/conf_0903/peter_dzvi

The negative effects of the brain drain and the brain hunter

To the country of origin ("brain drain")	To the destination country ("brain hunter")
Damage to the level of human capital: loss of skill in important areas. As a result, the quality of health services and education, technology and other important services may be impaired. This has social influences, up to the level of family behavior (change in family dynamics and parenthood). In addition, the level of higher education and research training may be impaired.	Harming wage levels in certain sectors of the labor market due to the entry of skilled workers from developing countries, whose employment is cheaper than hiring local workers. In addition, these employees are willing to work in inferior employment conditions than those of local workers; As a result, unemployment among local skilled workers is possible
The damage to the level of human capital leads to a loss of production capacity due to a shortage of skilled workers and students. There is damage to productivity, value added, and economic growth	Leakage of technologies and scientific achievements to foreign competitors, and sometimes even to hostile countries.
Loss of return on national investment in education, training and higher education (waste of state resources); Loss of income from taxes to the state	A relative decline in the number of Israeli citizens studying in a particular field due to the increase in the number of foreign students.
Widening wage gaps, inequality and poverty (a decline in the wage levels of unskilled workers and an increase in the wages of the skilled workers who remain).	A possible burden on health systems and support for populations, if skilled foreign workers are not placed in employment for various reasons.

Source: http://www.worldbank.org/afr/teia/conf_0903/peter_dzvi

The immediate and critical need to determine policy instruments

In recent years, economic theory has been shaping up, which holds that every country has an optimal, positive and desirable level of immigration of skilled workers. This is a situation in which skilled workers migrate abroad in order to generate the positive effects of immigration, without harming human capital, which can slow economic growth and stimulate its negative derivatives, Long-term migration (brain mobility), Diaspora utilization abroad for economic growth, and the creation of international cooperation to regulate international labor migration. Therefore, in designing an effective employment and immigration policy at the national level, the policy should be examined to consider national interests and to adjust economic policy and research and development policy accordingly. At the same time, global trends in employee movements and their regulation must be taken into consideration (<http://www.economy.gov.il/RnD/pages/default.aspx>).

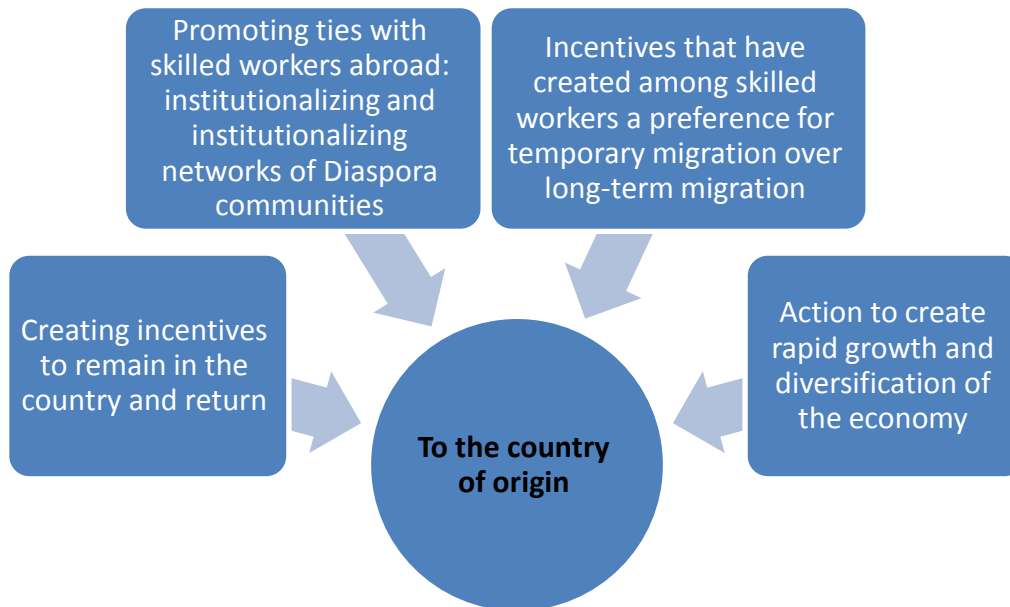
The plan to implement the right policy for "hunting brain"

According to Dzvimbo (Dzvimbo, 2004) Developing countries which including skilled migrant workers, have for years adopted policies to reduce immigration and cope with its effects. There are four broad types of policy tools:

- A. **Restriction policy:** The goal is to make it difficult to immigrate skilled workers and to reduce them in general or in certain sectors where labor supply is already low.
- B. **Compensatory policy:** Diaspora utilization (as a source of economic development) Compensate for loss of human capital.
- C. **Restorative policy:**
 - Encouraging repatriation and recruitment of skilled workers from abroad;
 - Signing international agreements (bilateral and multilateral) with countries of origin and target countries. The goal is to rehabilitate, at least in part, the stock of human capital. Restorative policy requires the state to create incentives such as wage levels and infrastructure similar to those in countries where skilled workers have migrated.
- D. **Development Policy:** Encouraging growth and economic development. This policy tool includes incentives aimed at encouraging the retention of skilled workers in the country and making emigration less worthwhile.

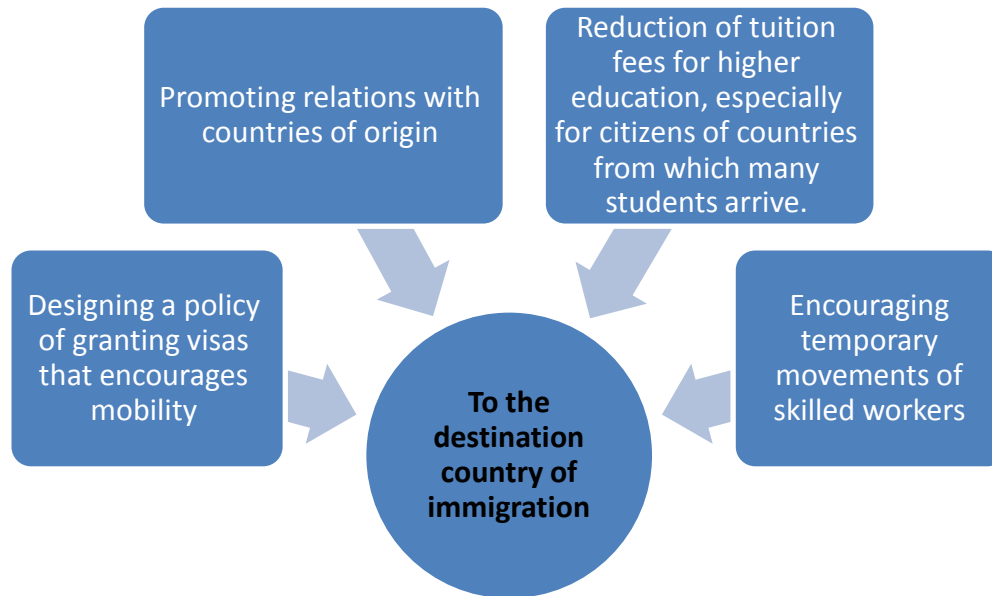
Recommendations for implementing policy in Israel

Figure 1 - Implementing policy to the country of origin



Source: Own contribution of the author

Figure 2 - Implementing policy to the country



Source: Own contribution of the author

Restorative policy and development policy require investment of resources in long-term economic development - that is, investment in education (especially in institutions of higher education) and in health, technology, research and development infrastructures, and the like. For example, it is possible to establish technological incubators and scientific parks where wage levels meet international standards and compete with wage levels abroad, and in this context it is important to implement research and development centers within existing research and development networks worldwide by developing centers of scientific excellence and creation. Conditions for innovation and entrepreneurship can create a positive balance of mind and capital flow or reduce negative flow.

Conclusion

Mobility and the migration of skilled workers (professional labor force) are now a fact and a global reality and an international one. Countries, including the State of Israel, must prepare for this and adjust the labor market and policy. Student Mobility is an economic and social opportunity that can improve social and economic development processes in the country and provide a solution for skilled manpower that is lacking in different periods. The solution lies in the openness of thought and the understanding of social and demographic processes that are already taking place.

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