

# Brain Drain

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December 17, 2019

## 1 Abstract

In the modern world, people seek for better standard of living and quality of life, high salaries, political stable conditions and economic growth. In order to fulfill their dreams, they migrate to the lands of opportunities, both within country and across other developed nations. How the developing nations are affected by this migration? What are the causes of migration? How are the developed countries benefited? What measures can be adopted by the source countries to control the migration to high-income countries? In the given report, we will be raising some issues and providing the solutions such that the skilled immigrants can contribute to the development of their source countries by sharing knowledge and professional networks.

## 2 Introduction

A brain drain or human capital flight is termed as immigration of trained and talented individuals "human capital" to other nations or jurisdictions. Brain drain can occur when individuals who study abroad and complete their education do not return to their home country or when individuals educated in their home countries immigrate to other countries. Historically, the greatest brain drains have been from rural to urban areas. In the 19th century and 20th century there were notable emigrations to North America from Europe, and in modern times, from developing nations to developed nations, especially after colonialism. Sometimes such drains have occurred between developed counties. The term "brain drain" was first coined in 1963 by the Royal Society to emphasize on the issue of UK citizens especially scientists and technologists immigrating to US [1]. After that, this term became common to be used in the context of third world countries emigration. A study conducted in 2018 by the Institute of International Education reported that global international student's population doubled from 2.1 million 2000 to 4.6 million in 2017.

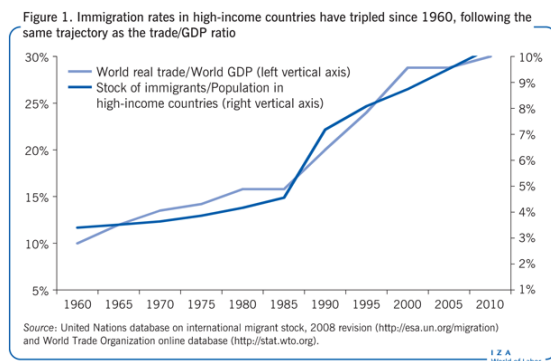


Fig 1. Immigration rates

According to the UN Global Migration Database, the population of international migrants rose from 75 million in 1960 to 214 million in 2010, which is an increase from 2.5% population. Overall, the share of international migrants in the world population has been stable for the last 50 years. The average immigration rate to high-income countries has tripled since 1960, as measured according to proportion of foreign-born in the total population of these countries. The increase has followed the same trajectory as the ratio of

trade to gross domestic product (GDP) (see Figure 1) [2].

### 3 Factors causing brain drain

Several factors contribute to brain drain and they can be subdivided into two main factors namely pull and push factors. Push factors are those factors that causes people to emigrate from their respective countries to other countries for example, poor working conditions, poor salaries, high unemployment rate, etc. Pull factors these are factors which attract emigrants to their destination for example, high salaries, good working conditions, good health care system, etc. Below is a graph of the push factors compiled by the world bank after a study on Malaysia [3].

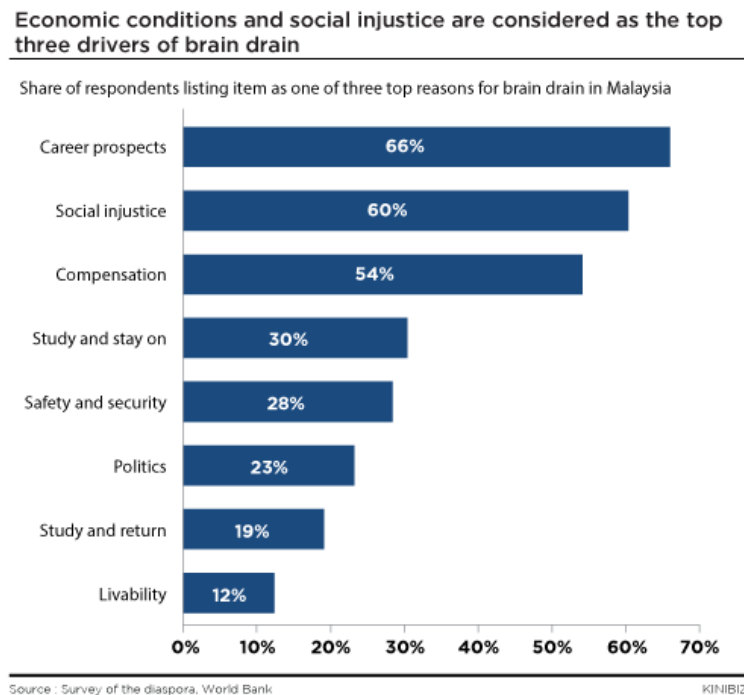


Figure 1: Factors causing brain drain in Malaysia [3]

### 4 Effects of brain drain

Brain drain has been observed to have detrimental effects on the development of the home country. Emigration of skilled workers especially in the field of engineering and science has been observed to cause a huge gap in terms of technological and industrial development in developing countries as compared to the developed countries [2]. Another negative impact is the decrease of quality health care system due to emigration of health professionals like doctors and nurses, this has been observed to be the major cause in the deterioration of health care system in sub-Saharan Africa, for example in 2010 Simpson conducted a study on the South African health care sector and noted that more than 5000 South African doctors were working in other countries like Canada, USA, New-Zealand and Australia [4]. Another disadvantage is that high-skilled emigrants do not pay taxes in their home country once they have left which this also may have an effect on the economy of their respective countries especially in countries where free education is offered in hope of benefiting letter from such a policy [2].

Brain Drain has also significantly contributed to developed countries in terms of economic

growth and prosperity. Students moving abroad contribute to the economy of that destination country by paying tuition fees, accommodation and other charges. Countries that host most foreign students are US, UK, Australia, France and Germany with the percentage of international student as 19%, 10%, 6%, 6% and 5% respectively of the total share of international student population [5]. Of these countries, Australia currently hosted 548k international students which injected almost 32 billion AUD per year, a major contribution to Australia's GDP, into the Australia economy in 2018.

## 5 Brain Drain to Gain

Firstly, the government should make it mandatory for the students advantaged by some Government. Scholarship Schemes to work compulsorily work in their own country for some years as initiative taken by the Philippines. In June 2017, the Philippines's Commission of Higher Education announced free education for students in medical colleges; and the students accepting fee-waiver will have to work in Malaysia for several years. Similarly, in Thailand, it mandatory for graduates from public medical colleges to work in the country for at least three years [6]. Moreover, the brain drain should be viewed as assets than a barrier for the economic growth of developing countries. These immigrants send money back to their homeland. In 2018, top remittance receiver countries were India (\$79 billion), China (\$67 billion), Mexico (\$36 billion), Philippines (\$34 billion), and Egypt (\$29 billion) [7]. It is projected that the remittance to low and middle-income countries will be reaching \$550 billion from \$529 billion [7]. The government of developing economies should interact with these potential returnees and advertise about the potential development areas in their home country to lure them to return. These returnees when moving abroad for higher studies and work are exposed to advanced knowledge, rare to their home country. They also have exceptional skill sets and professional networks that can contribute to the country's growth. Taiwan lured back immigrants from Silicon Valley and developed Electronics and Technology industry by:

- Actively networking with the Taiwanese diaspora and subsidizing vocational training rather than high education so that the returnees can easily find a labor force
- Encouraging entrepreneurship by forming business-friendly policies
- Developing Science parks resembling those in Silicon Valley.

Emulating the Taiwanese model other countries can also be benefited [8].

## 6 Conclusion

Brain drain will continue to exist because students and professionals aspire for better life quality and health facility, high salaries, and global exposure. However, if the governments of developing economies work significant to create business-friendly policies for entrepreneurs, develop world-class infrastructure, similar working environment to that of developed countries and ensure availability low skilled work forces, these professionals can return back and contribute to the economy with the help of their research and professional experience.

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