Economic Impact of Brain Drain in Developed and Developing Countries

Dr. Babita Srivastava

William Paterson University

Abstract

The impact of brain drain on developing countries, such as India, has a negative effect not just on the developing countries themselves but also on larger and more developed countries. Brain drain is the emigration of highly trained people from a particular country into another country where they are able to find better opportunity. These individuals are educated in their native countries but generally seek work in foreign nations as they find it more desirable, either because of higher living standards, better wages, or both. Essentially, once educated, they feel they can live a better life elsewhere. This emigration can make it difficult for a country to maintain a high intellectual standard, as many of its educated and most intelligent people leave. Educated people are key to creating a more educated and professional society. For example, if all of a country's best doctors leave, it will be difficult for new doctors to get the best education and work experience, as well as for a patient to get the best treatment.

Key Words: Brain Drain, Immigration, Technology, Globalization, Developing and Developed Country, and Economy.

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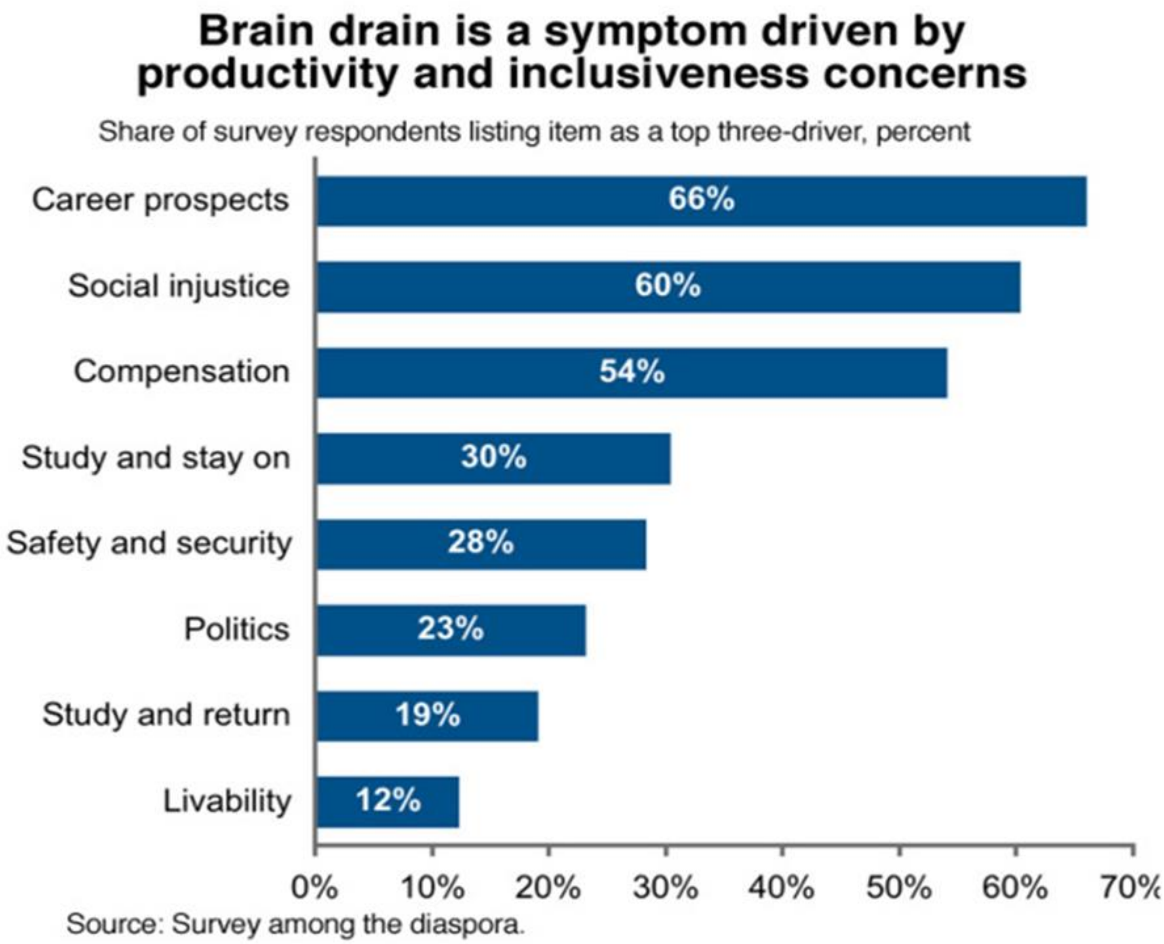
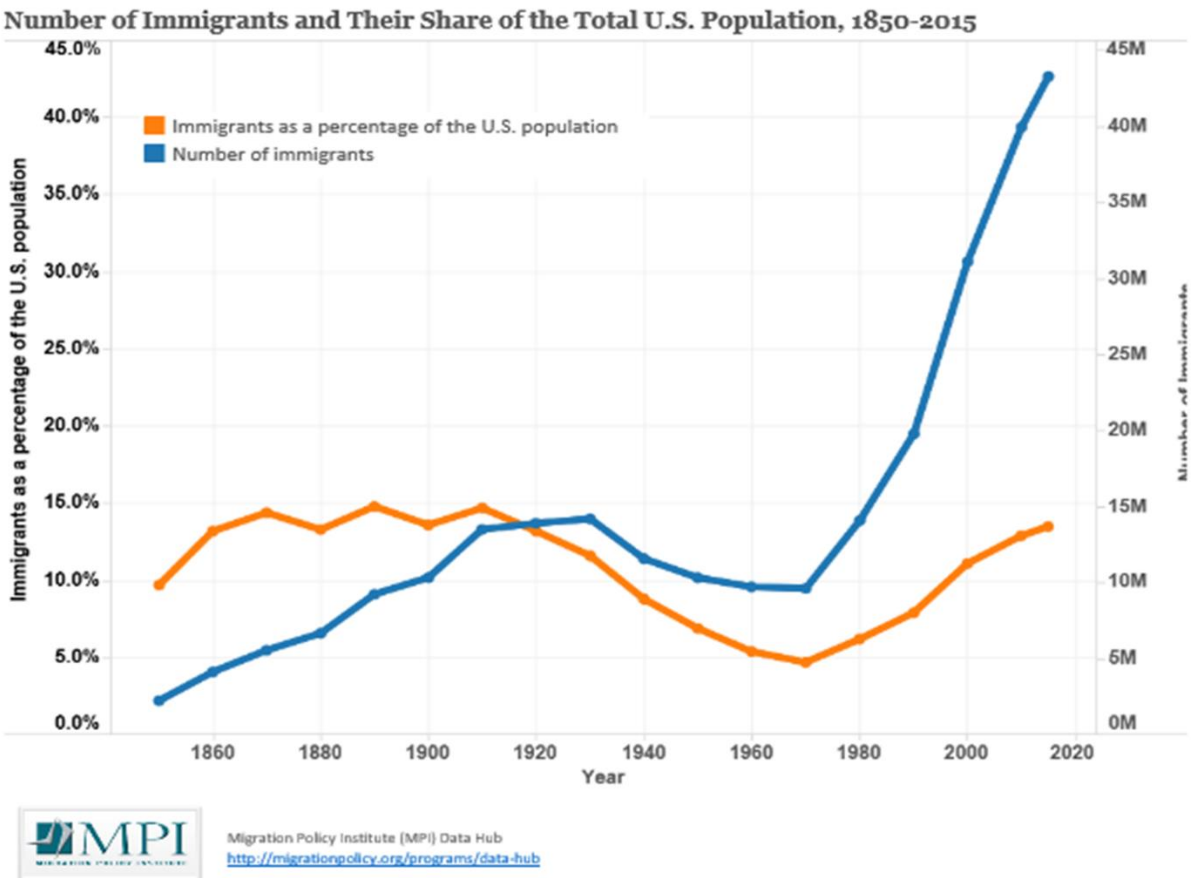
Brain drain is the emigration of highly trained people from a particular country. According to Dodani and LaPorte (2005), brain drain mostly affects “skilled human resources for trade, education and trained health professionals”(p. 487). Brain drain can have positive effects such as the talented, skillful people leaving their countries of origin in order to have the opportunity to grow and explore themselves, enabling the migrants to spend time in other countries (Dodani and LaPorte, 2005, p. 488).Talented people should not be burdened by a country’s limitations or boundaries. Brain drain brings talented people into a growing atmosphere and it promotes globalization, making the world part of one big family. This raises the average level of human capital and the productivity levels of the economy (Stark, 2004, p. 15).

Even though there are some positive effects of brain drain, on the whole, there are more negative effects on both the country where the brain drain is happening and the economies of the countries to which skilled professionals emigrate. First and foremost, brain drain causes developing countries to lose the ability to progress. Talented people are born, raised, and educated in their country, and when it comes time to work and give back what they were provided, they leave and seek employment elsewhere. As shown in the figure below, the top three main reasons why people choose to leave their country are: career prospects, social injustice and compensation, with career prospects being the highest percentage with 66%.The country loses people who can help improve the economy and, by extension, the country itself. Highly skilled people are valuable factors in the world economy (Davis and Hart, 2010, p. 509). Davis and Hart (2010) state, “In 2000, a person with a university or graduate school education was six times more likely to migrate legally than one with less than a high school education"(p.509). Instead, developing countries continue to face many problems, such as poverty and lack of technological advancements, as well as fewer opportunities.



Source: World Bank – Malaysia Economic Monitor

Another negative impact is that countries develop slower once they lose their talented and skillful citizens. Whereas developing countries lose their talent, developed countries end up gaining it and having an overabundance of skilled workers trying to enter the workforce and fewer available jobs. The United State remains the central hub of the global high skill migration system (Davis and Hart, 2010, p. 511). As shown in the below figure, the number of immigrants migrating to the U.S. has been increasing over the last few decades and is expected to rise through 2020. As a result of brain drain, the United States faces many problems.



Source: MigrationPolicy.org

Developing countries might also suffer from economic loss, which reduces their development even further and their production of more talented people. The drain effect refers to the fall in the stock of human capital that follows skilled emigration (Romero, 2013, p.186). With this suffering economy, there will also be a reduced quality of life for the rest of the population. In one side of the argument against brain drain, it was concluded that the loss of the skillful people, with their migration from their country, would affect those who decided to continue to reside in that country (Canibano & Woolley, 2015, p. 117). Without growth and the improvement that could have been provided by the skillful and educated people who left, the country then can no longer attempt to compete globally and are left isolated from the rest of the world. This isolation can slow development and progress even further and cause a nation to grow even poorer.

Developed countries have a technological advantage over developing countries, sometimes by a margin of years or even decades. For example, where nearly everyone in a country such as the United States is connected to the internet, often via a device they can carry in their pocket, they have a connection to nearly everyone else with such a device. Meanwhile, many developing countries suffer from massive power blackouts, where citizens must work and play in darkness or via kerosene lamps. These citizens are isolated, putting them at a disadvantage in the fast and ever moving worlds of various sectors of economics and life, from scientific research to business transactions. Medical technology is also far behind in many of these places. The more citizens must worry about illness and death, and the inability to either pay for treatment or even an inability to access treatment, the more motivated a highly educated citizen is to leave for a more developed country.

One such nation that suffers from this effect is India. India is one of the main countries that experiences brain drain. Indian-Americans are amongst the most highly educated; many of them who are Indian-born, have completed college and most have at least a bachelor's degree (Davis & Hart, 2010, p.516). India has a massive population but ranks globally 163rd in terms of capita income at US$1070 (Davis & Hart, 2010, p. 516). India has three million college graduates per year, which is problematic because there is a lack of educated work (Davis & Hart, 2010, p. 516). Indian's cannot get work for the degrees they obtain. They then must look elsewhere, hence the brain drain issue. Additionally, Indians often suffer from a quality of life issue, where many regions are plagued with poverty and rolling blackouts.

Professor of Economics John Gibson and Senior Economist David McKenzie emphasize in their article *Eight Questions about Brain Drain* that the issue of brain drain should be taken very seriously by economists, due to its potential implications not just for a developing country's economy, but for both the world's economy and social sphere (p. 111). Basically, brain drain has the potential to cause a dangerous "domino" effect. Logically speaking, overloading developed nations with highly educated workers while simultaneously draining developing nations of such workers is highly detrimental to both. The below data showcases which occupations are held by educated migrants, which also hail from developing countries.

Proportion of Immigrants among All U.S. Workers in Main Occupations for Educated Migrants

	All tertiary educated		*Individuals with Ph.D.s*	
Occupation	*Share who are foreign born*	*Share who are born in developing countries*	*Share who are foreign born*	*Share who are born in developing countries*
Computer software engineers	0.36	0.27	0.62	0.47
Registered nurses	0.14	0.10	0.22	0.17
Physicians and surgeons	0.27	0.20	0.32	0.22
Accountants and auditors	0.17	0.11	0.51	0.35
Postsecondary teachers	0.21	0.12	0.27	0.14
Managers, all other	0.12	0.07	0.35	0.17
Elementary and middle school teachers	0.06	0.04	0.16	0.09
Computer scientists and systems analysts	0.20	0.14	0.41	0.30
First-line supervisors/managers of retail sales workers	0.13	0.09	0.31	0.21
Computer programmers	0.23	0.16	0.52	0.43
Medical scientists	0.40	0.27	0.55	0.36
Physical scientists, all other	0.38	0.24	0.50	0.30
Engineers, all other	0.23	0.16	0.57	0.36
Chemists and materials scientists	0.25	0.18	0.39	0.27
All medical professionals	0.14	0.10	0.24	0.16
All computer specialists	0.23	0.16	0.53	0.39
All engineers	0.18	0.12	0.55	0.35
All teachers and academics	0.10	0.06	0.26	0.14
Scientists and social scientists	0.21	0.13	0.37	0.22

Source: American Community Survey (see Gibson & McKenzie Eight Questions about Brain Drain)

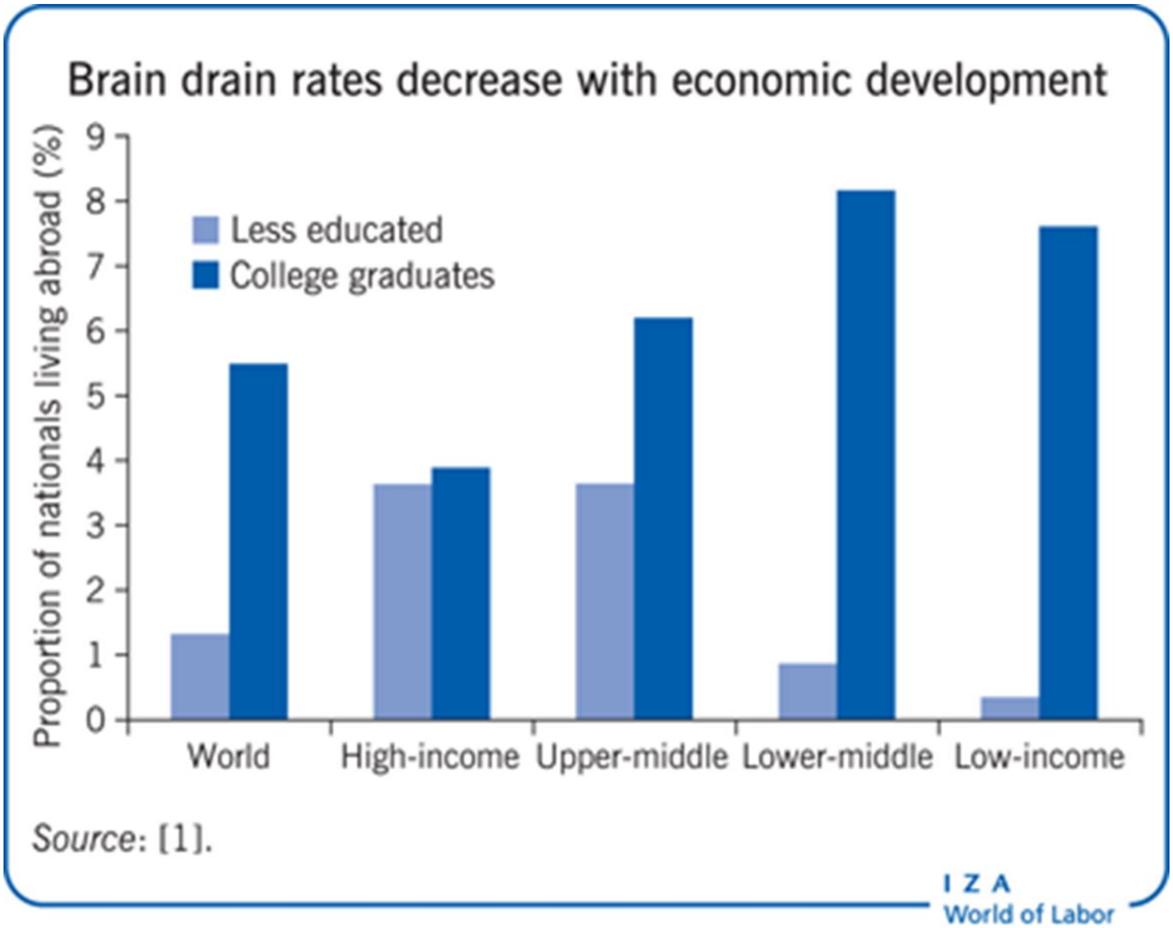
Developed nations will have too many workers for not enough jobs, causing a decrease in average pay and an increase in either unemployment or highly educated workers in low education work. Meanwhile, developing nations, upon losing educated workers, continue to fall behind and have their economies weakened. As both these scenarios lead to a weaker economy, brain drain has the potential to be quite devastating to the world economy. After all, it damages all nations involved.

As Gibson and McKenzie (2011) note in their article, brain drain is not a new problem and has been written about in some top economic journals that regard it, rightfully, as an area of great worry and serious economic impact. Economists have a responsibility to carefully examine brain drain because it affects not only a single nation's economy, but also the whole world's economic system. Supply and demand could be imbalanced if supply outweighs demand. Developing countries are impacted from brain drain at more of a detriment. Skilled workers immigrate to more devolved countries to practice their professions. In a 2010 study, Gibson and McKenzie studied five countries and their top academic students to find their income would increase by $40,000-$60,000 per year if the gifted students were to move to a country more developed than their own. They believed these "barriers also restrict the extent to which less-skilled workers can react to the migration decisions of the higher-skilled," due to limits in opportunity (2011). The migration of talented workers leads to fiscal decline when those students who relied on government subsidies leave and therefore no longer contribute as taxpayers (Gibson and McKenzie, 2011).

Brain drain does not show damaging results right away; rather, it takes time to produce any significant economic effects. The worry of economists is that this problem will balloon to unmanageable levels and action will not be taken against the growth of Brain Drain. The issue is the highly education individuals who leave for better opportunities are the only source that can improve their countries' economic systems. Developing nations rely on equilibrium, where they benefit from other countries' stronger economies without those same economies drawing away all their resources, which include educated workers. Without this balance, there is no reinvestment back into their economy.

Looking at both the positive and negative effects, how should one perceive brain drain and manage its effects? Socially and economically, the negatives outweigh the positives. Therefore, brain drain should be viewed negatively. It should be stopped or, at the very least, managed. One way that it can be managed is that highly educated illegal immigrants should not be permitted to take up the work that they are educated for in the nation in which they are illegally living. They can often work for minimum or illegally lower wages, making it difficult or impossible for legal educated workers to get the same work. The developed countries should also make stricter rules to get permits for work authority.

Furthermore, developing countries should work more actively to stay a competitive and desirable as possible a place to work. They should also import more advanced technology and facilities if they cannot provide their workforce with the needed tools and materials. Another way a developing country can try to retain their citizens is by creating more availability for positions requiring higher education. Otherwise, workers will go elsewhere. Government should take strict but positive steps. With that being said, they should keep an eye on their educated citizens and interfere by creating policies that will persuade these educated individuals to stay and contribute to the local economy. The government should protect their investments and make sure that they are achieving the right results. For example, in the India Government, if a doctor refuses to practice in a village, where electricity and uneducated people are an issue, rather than in a big city, they need to pay a fine; however, this fine is easily paid off and the doctor can practice in the city without further interference.



Source: wol.iza.org – World of Labor

Developing nations need to learn to manage in the "New Economy." As academic scholar Allan C. Ornstein puts it, this new economy "deals with the exchange of knowledge and ideas, or in urban squalor, where old and new knowledge, values, and ideas collide" (Ornstein, 2015, p. 148). Whereas there was a trade of products, traditionally, in this new economy, there is a movement of knowledge, information, and skills. Unfortunately, many developing nations suffer from even greater economic disparity than the United States, and extraordinary governmental corruption (Ornstein, 2015, p. 148). These factors all combine to make it very difficult for a nation that is not actively fighting brain drain to properly defeat it. Put simply, the “New Economy” is one of globalization. As shown in the figure above, with economic development brain drain effects will decrease, especially in their educated citizens. It is remarkably hard for some nations to compete globally, and retain a good reason for their educated citizens to stay.

Globalization has made it easier than ever for immigrants to travel to better work. They can go to places that allow for growth and better opportunity. There is a “war on talent” occurring at firms and in countries all over the world (Davis and Hart, 2010, p. 509). Developing countries must provide more facilities, more work, and more opportunities for their citizens to explore higher level work. Developing countries need to look inward and discover why citizens might be leaving. They must then do whatever possible to mitigate or eliminate these factors causing dissatisfaction. It is important for these countries to recognize and keep their talent, not through limiting freedom, but granting better opportunity. Policies need to be put in place that will allow developing nations to enter the world stage.

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