

Analyzing Migration Intentions and Associated Brain Drain

Krishav Joneja

Author, Modern School Barakhamba



Abstract

In the words of Elizabeth Gould Davis “The most wasteful ‘brain drain’ today is the drain in the kitchen sink”.

Talent in emerging economies is scarce, expensive, and hard to retain. Thus, for the balance of power and for the development of the world, it is very important to stop the phenomena of brain drain and the associated macroscale migration of the talented pool of minds.

Truly preventing the phenomenon of brain drain can help India to use all its local skilled citizens for its own development and proliferation. But to hold these skilled workers at their native places, it is also important to provide them with enough work opportunities and living facilities. For this purpose, developed nations should help developing countries having immense promise with the necessary money and resources. Also India is promoting the same via initiatives like Atal Tinkering Lab (ATL) under the Atal Innovation Mission (AIM) and Atmanirbhar Bharat since the covid hit. Additionally, the Ministry of Skill Development and Entrepreneurship (MSDE) and the Ministry of Labour and Employment (MoLE) under NITI Ayog are engaged in formulating policy/programme initiatives and reforms related to skill development, apprenticeships and employment issues. So that each and every human on this planet can have a good standard of living and each and every nation can introduce itself as a developed nation.

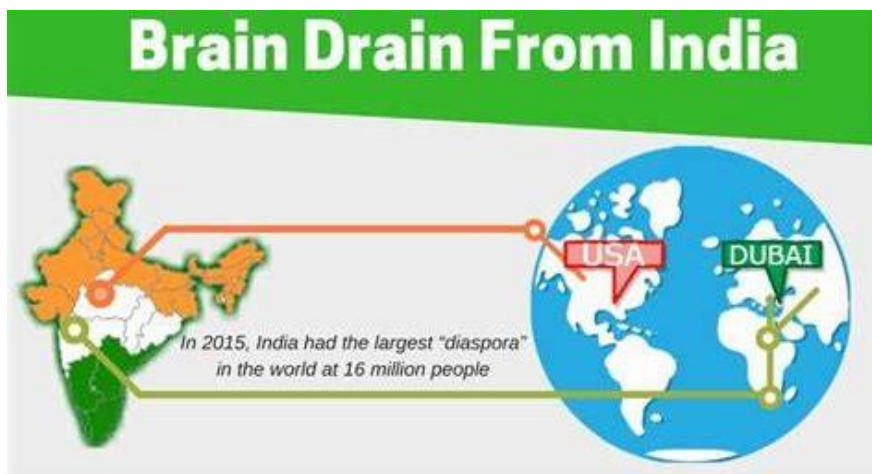


The present research attempts to examine the relationship between three independent variables i.e; Age, Gender and Network Abroad and the dependent variable Inclination to Migrate abroad. 90 responses from individuals currently residing in Delhi-NCR aged between 18 and 25 years who are from non-STEM courses were collected through convenience sampling. Further the said study follows a co-relational and prospective research design. Also targeted sampling is done wherein specific cohorts of students applying for Graduate, Post graduate , Research, Professional courses and trainings courses were found from UK, America. This secondary targeted sample is taken from Library of American/Uk consulate, International course training centres and from the data for students applying for Visa at embassy. Additionally, in order to analyze the objectives and attain the goals, statistical approaches such as descriptive statistics, variances, and other statistical tools were used which are analyzed using excel.

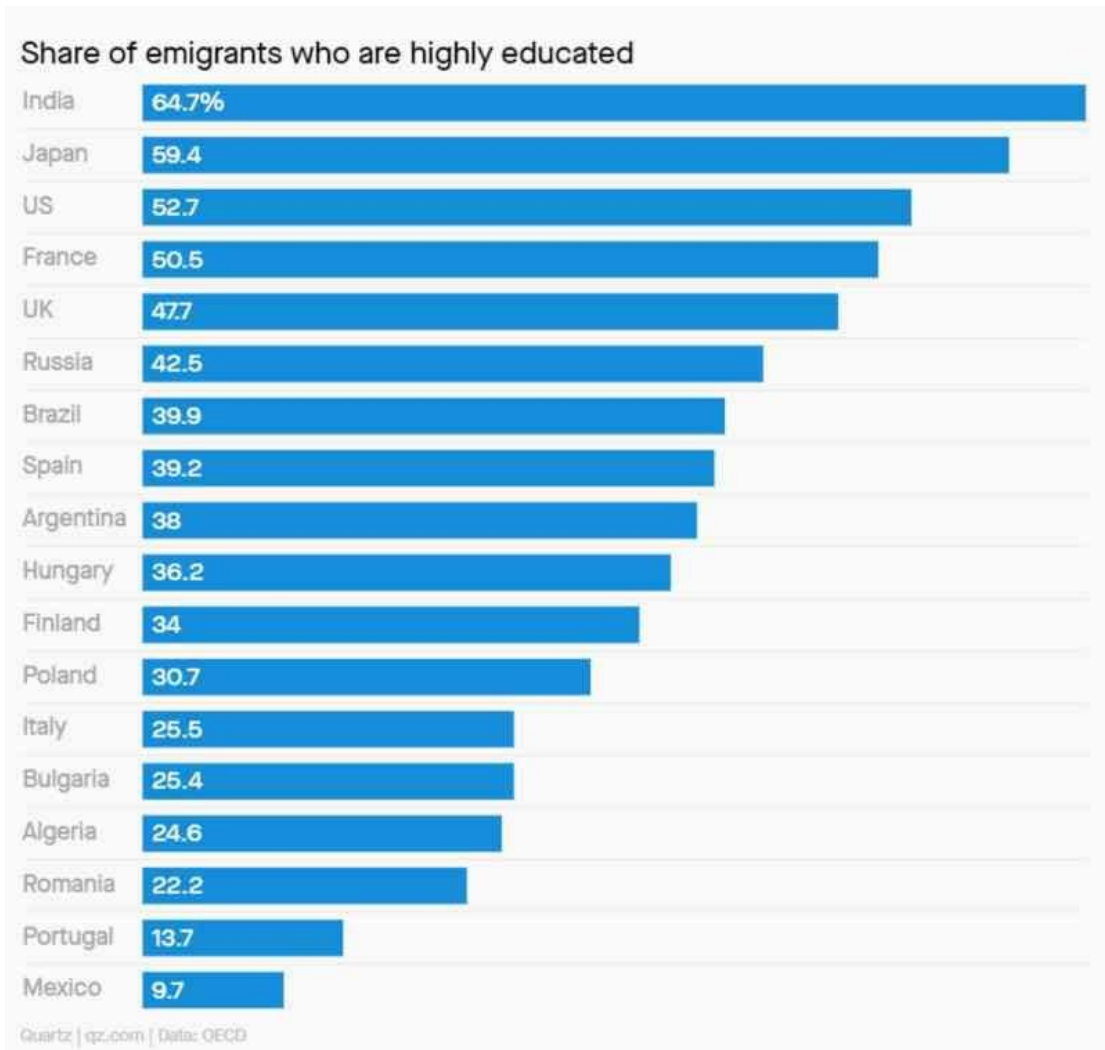


After conducting the study the researchers came to the conclusion that improved standard of living, employment opportunities, and the prospects for further education are some of the prominent reasons for individuals to leave their home country. Based on the literature review, it was concluded that age and network abroad had a positive significant relationship with the inclination to migrate abroad. The survey study findings further revealed that there was no statistically significant difference between males' vis a vis females' inclination to migrate abroad.

Keywords: Inclination, Migrate Abroad, Education, Gender



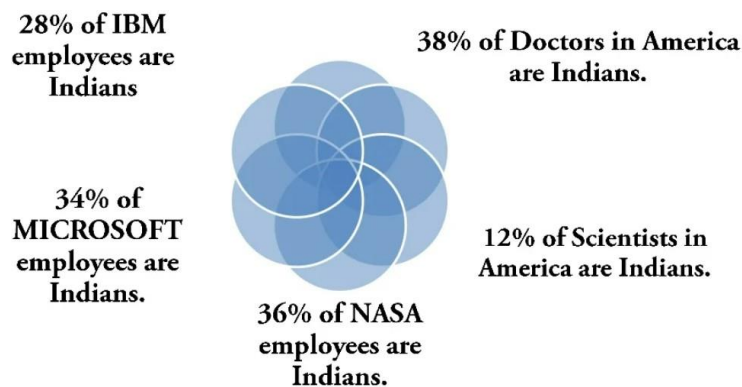
Indian migration to countries like USA, Dubai in 2015 Source: r.search



Indian migration abroad (Apr 10, 2022) Source : Ananya Bhattacharya, qz.com

1. Introduction

India is a country rich in culture and history. It is the world's largest democracy and a country rich in diversity.



Source : UNESCO

From the time immemorial it has had great centers of learning for instance the infamous Nalanda University which served as a renowned center of learning, in the ancient kingdom of Magadha. It was Asia's biggest and most prestigious university that had students from countries like Japan, China, Korea,

Turkey, Tibet, Mongol, Persia, etc.



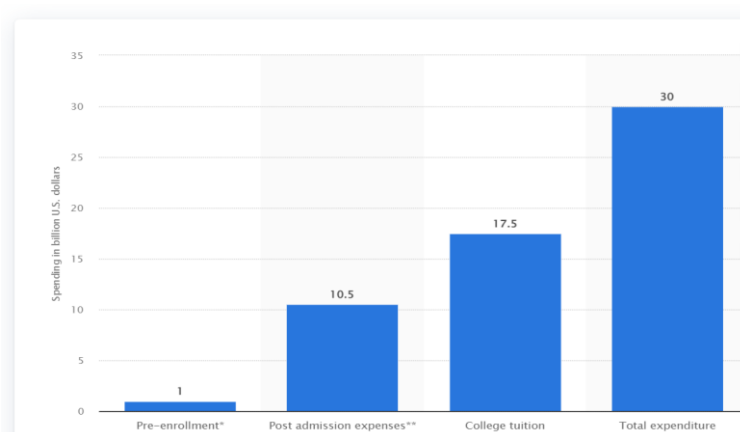
Takshashila, Nalanda Source: durofy.com

The university used to teach various subjects like Mathematics, Science, Ayurveda, Architecture, Medicine, Religion (especially Buddhism), Vedas, Philosophy, Warfare, History, Literature and many others. It provided high-quality education and after completion of the education, the students used to get appointed in the courts of kings, many were even invited by countries like Japan and Korea for translation and consultation work. The best part being that those who used to study here did not have to pay any fee. The university was funded by the kings and other dominant people. The university ran on funds received from the patronage of kings and people who made donations for it.



Nalanda University Bihar Source : mindwithcare.com

But today it is grim to point out that almost 2 million graduates and half a million postgraduates are unemployed in India and around 47% graduates in India are not suitable for any kind of industry role. This is contributing to factors like jobless growth and mass unemployment which is causing issues like brain drain.



Indian students' expenditure for higher education abroad in 2019 (in billion U.S. dollars) Source: TPT Bureau Additionally, a report by “The Policy Times” states that approximately 1,11,287 Indians have

given up their citizenship as of September 30th, 2021. Except for the 2008 financial crisis and 2020-21 because of Covid-19-related travel limitations, there has been a steady emigration of Indians for the past two decades. Lack of better higher education prospects and financial research assistance, non-recognition of abilities, and poor remuneration are some of the primary reasons behind India's brain drain. Some other reasons for this “Brain Drain” include the cultural, political, and socioeconomic status of both host and home countries. For instance, in 2019, over 770 thousand students headed out to foreign countries for their education from India. The significant increase in students preferring to study abroad from 2016 was on account of the rise in gross domestic product of the country which in turn led to more awareness about education abroad.



Literature Review

1. Gaps Identified in the previous studies:

A common pattern was deduced among the targeted study population. Most research studies included people from the STEM background, mainly targeting students from the field of Engineering and Sciences. But not much research has been conducted which aims directly at students from non-STEM courses. Also, most of the research papers were published before the onset of the pandemic, thus creating a gap in identifying the migration trends of students post covid-19.

The literature available on Brain Drain is still lacking and requires more attention, especially in uncovering the intention of migration. Though ‘Intent’ is no guarantee of future outcomes and is only one part of large migration patterns, it is nonetheless necessary to examine ‘intent’ in order to understand how people evaluate their migration possibilities. Thus, ‘Intent’ is the first step in a process that leads to ‘action’, even if the future ‘action’ may or may not be in line with one’s original ‘Intent’.

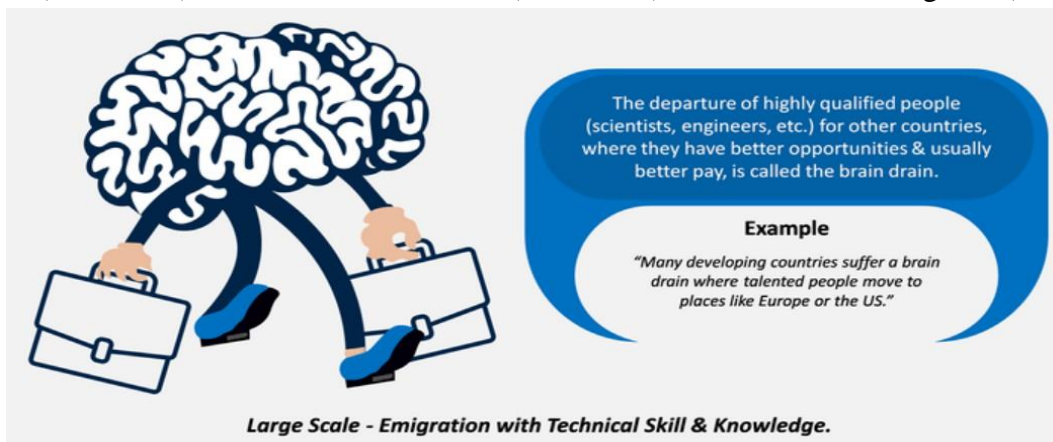
Additionally, a relatively low figure of studies has explored or gauged the views of the Indian students with regard to the brain drain phenomenon. Limited studies that were region or population-specific could be found in the context of India. Therefore, this research aims to plug the gap by gathering students’ inclination to migrate abroad among Indians.



2. We present the literature review in three sub-sections :

2.1 Current Global Brain Drain Situation

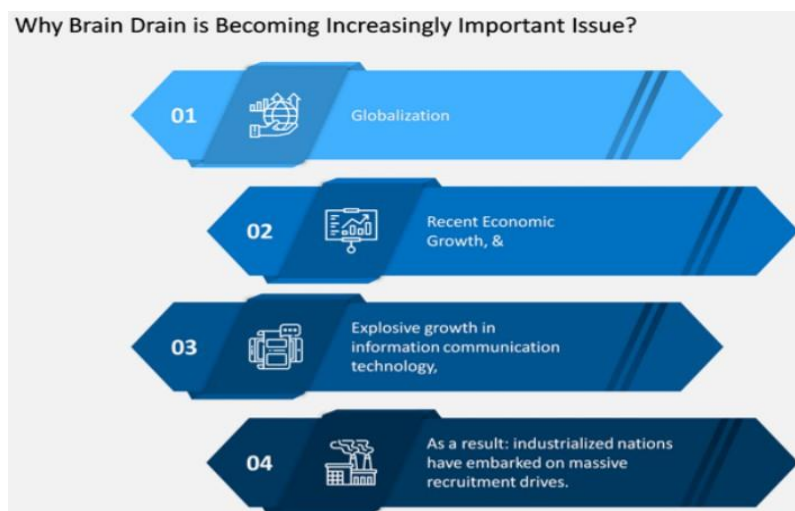
It has been witnessed in recent decades that the number of international migrants has been continually increasing. Growth in the number of international migrants has been robust over the last two decades, reaching 281 million people living outside their country of origin in 2020, up from 173 million in 2000 and 221 million in 2010. Currently, international migrants represent about 3.6 per cent of the world’s population. The ‘International Migration Highlights 2020’ records that two-thirds of all international migrants live in just 20 countries. The United States of America remained the largest destination, hosting 51 million international migrants in 2020, equal to 18 percent of the world’s total. Germany hosted the second largest number of migrants worldwide, at around 16 million, followed by Saudi Arabia (13 million), the Russian Federation (12 million), and the United Kingdom (9 million).



In Asia, the brain drain phenomenon is highly noticeable, especially in Southeast Asia, in which India is at the top possessing one of the highest emigration rates. India topped the list of countries with the largest diasporas in 2020, with 18 million persons from India living outside of their country of birth (World Population Prospects - United Nations, 2020).

2.2.1 Delhi undergoing symptoms of brain drain

Universities play a big role in the development of a country. They identify talent and nurture it. Thus as a nation, all of us would fail if our students are studying in universities abroad and thereafter contributing to the economy of others. Therefore, universities need to reflect on how to stop the brain drain.



Furthermore, we need to understand the difference between human resources development and education. Human resource development is a mere tool of education; it is not the foundation of education. Thus it is the role and responsibility of education to ensure that our nation's children are not considered as mere tools or instruments by the world but as thriving human beings.



Also studies have found that 23,000 Indian millionaires have left India since 2014



A. Parag Agarwal and Leena Nair



B. Indra Nooyi



C. Sundar Pichai



D. Shantanu Narayan Source: www.cwhf.org

2.2.2 The Goa example

Recently some unsettling numbers were revealed in the 'Department of Economic and Social Affairs' International Migration Report. The report stated that India, with 16 million people, had the greatest "diaspora" in the world in 2015, followed by Mexico (12 million). Other nations with significant diasporas included the Russian Federation (11 million), China (10 million), Bangladesh (7 million), Pakistan (6 million each), and Ukraine (each with 6 million). The National Science Foundation, a major financ

ier of research in the US and a monitor of demographic change among scientists and technologists, stated in another report that the number of Indian-origin scientists and engineers in the US increased by 85% between 2003 and 2013.



A significant case in point is that of the tiny Indian state, Goa, with an estimated population of 1.5 million, accounting for some of the highest brain drain from India. In 2016, an average of 11 residents of Goa per day gave up their Indian nationality to become citizens of Portugal. Residents of Daman and Diu also traded their Indian citizenship in favor of Portugal. Earlier; Goa, Daman and Diu were colonies of Portugal till December 19, 1961, till they were overrun by the Indian Armed Forces. These territories became part of the Indian republic.



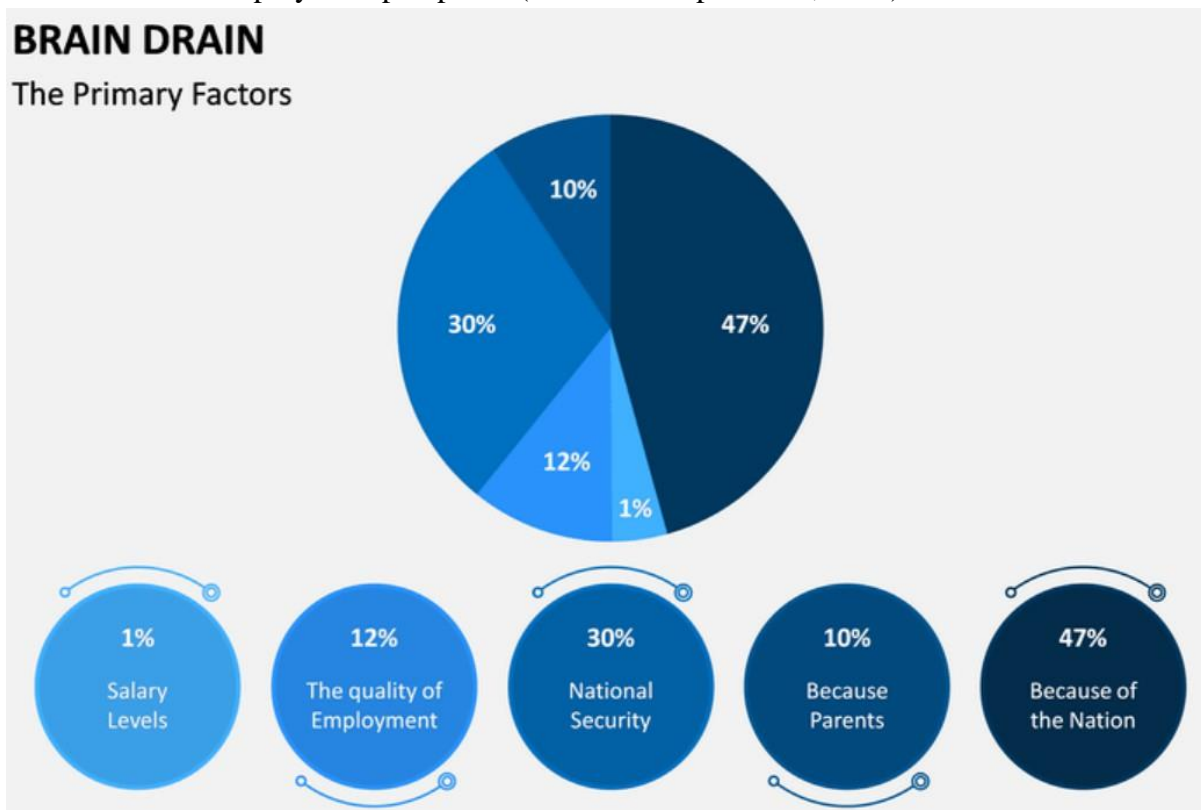
However, the Portuguese government, as a special gesture, allows residents of these former colonies to acquire the nationality of Portugal, provided they meet certain criteria.

As a result; some of the highly skilled people from Goa opted for citizenship of Portugal since the country is a member state of the European Union. A Portuguese passport allows them visa free entry into the UK and other EU countries. Though the UK formally exited from the EU, the demand for Portuguese passports by eligible residents of Goa remains high. Showing a significant proportion of brain drain from the country.

Not only this we have many Indian origin cricketers too who are now playing against India, for instance; **Saurabh Netravalkar, Sunny Sohal, Jaskaran Malhotra.**

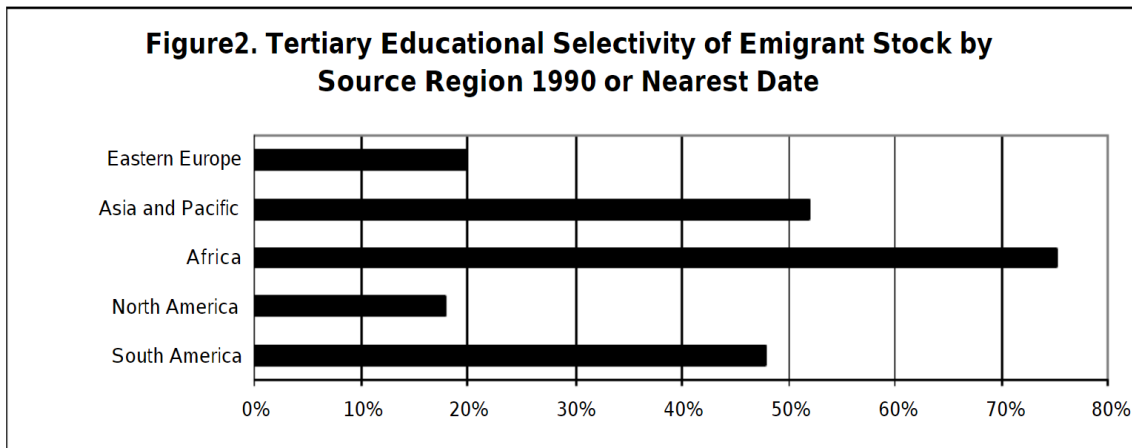
2.3 Reasons Behind Brain Drain

- Various reasons motivate people to emigrate. Unavailability of the desired study program and lack of access to universities, poor quality of education in the home country and culture, living standards, socioeconomic status, and improved career prospects in the host country are among the leading reasons for Students’ migration decisions.
- Moreso, students’ decision to study abroad can also be influenced by their family, teachers, and other socioeconomic, political, and cultural issues in both the home and host countries. (Nghia, 2019).
- Many recent studies have pointed out that by pursuing international education, students can become proficient in a foreign language, enhance their academic competence, develop intercultural competence, build a network of international friends and professionals, nurture personal qualities, and increase their employment prospects. (Nilsson & Ripmeester, 2016)



- High-skill individuals often stand to multiply their income by emigrating out of low-income countries, thus making the Brain drain phenomenon more likely to occur. Gibson (2011) reports that emigration decisions of professionals are driven by broader career concerns such as quality of opportunities, professional advancement, better working environment, an improved lifestyle, and other family reasons more than how much additional income people could earn abroad.
- Many industrialized countries are changing their policies to become attractive for highly skilled migrants, with the enhancement of student mobility as one of the mechanisms to achieve this goal.
- Easy and transparent access to visas, the possibility to work while studying, and extended job-searching periods after graduation are among some of the policy measures introduced to attract

international students.

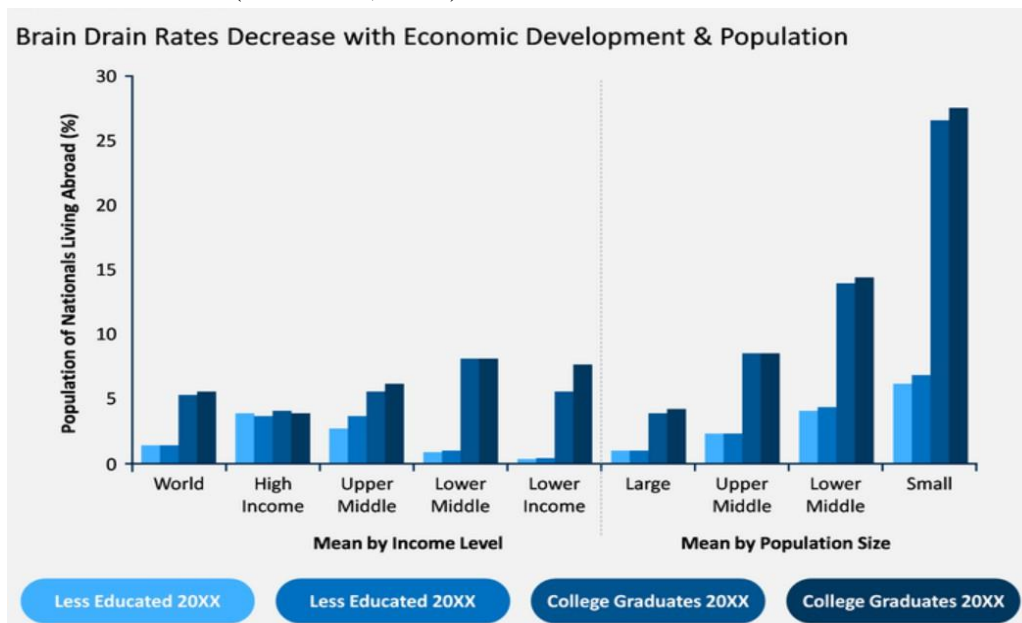


Source : www.researchgate.net

- Next to the benefits in terms of greater international recognition, many host countries reward degrees obtained by allowing students to stay in their nation after their studies and treating them favorably when applying for a residence permit. (Hercog & Van de Laar, 2016).

2. India’s Brain Drain

- There has been a steady outflow of scientific and technical people from developing countries to the developed countries in the West, particularly the United States, since the early 1960s (Gulati, 1990).
- Assuming that the brain drain to the United States accounts for roughly 90 per cent of the total, the yearly brain drain from India to all other nations in the 1990s can be estimated to be in the range of 5500 to 6500 individuals. (Sukhatme, 1992).



- Moreso, internationalization of higher education, as well as the growing ability of the middle class in India to attend foreign university programs, have been important driving forces behind migration (Hercog & Van de Laar, 2016). Salary levels, career prospects, and improved living standards are some of the other pull factors that draw Indian people to the United States.
- People who prioritize work-related variables are more migratory, whereas those who prioritize a family-friendly environment and public safety prefer to stay in India. Indian Students from research-

oriented universities, such as JNU and IISc Bangalore, were shown to be more likely to express an interest in working abroad (Hercog & Van de Laar, 2016).

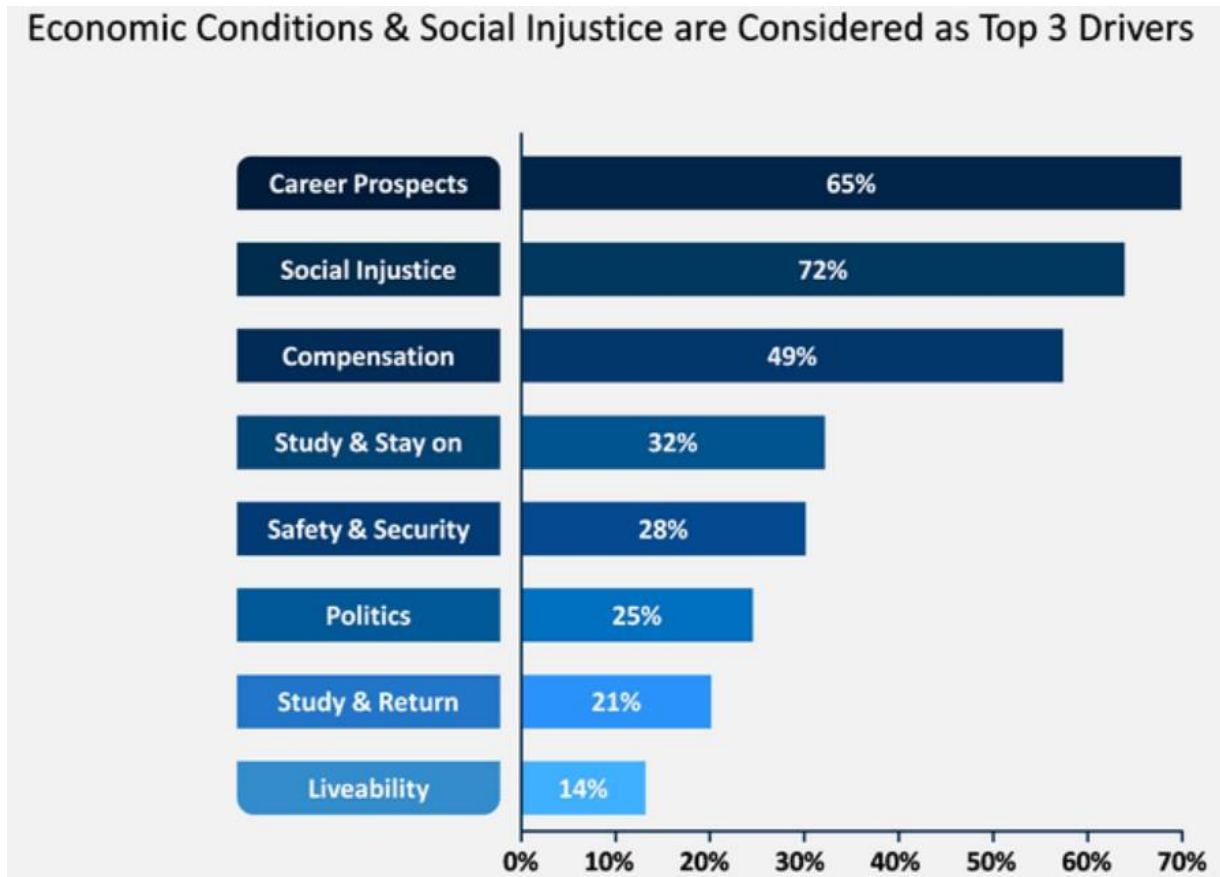
- Sukhatme (1992) notes that most professionals who had no initial intention of settling in another country did so because of better opportunities and higher living standards available in the host country.
- Without a question, the Indian government is aware of the problem and is taking appropriate measures to control it, regardless of how much more could be done.



Indian Students Studying Abroad – Top Destinations :

Country	Number Of Students
Australia	92,383
Saudi Arabia	80,800
United Kingdom	44,465
Oman	43,600
New Zealand	30,000
China	23,000
Germany	20,000
Ukraine	18,000

Indian Students Studying Abroad (July 2021) Source : www.immigrationworld.com



Source : UNESCO

- India has historically played a significant role in the supply of professionals and students around the world.
- Although India has long been a source of skilled engineers and medical professionals, it is currently the most sought-after source country for highly trained individuals.
- The majority of the flow is to the United States. With intentions to increase production, India has quickly geared up to meet the high demand in information technology (IT), producing over 120,000 graduates annually.
- Research on particular industries, such as engineering and medical, undoubtedly raises worries about negative repercussions. The government sees these tendencies as mostly benign. The government perceives little problem with these trends, but the media decries the “brain drain.” Memorandum of understanding on student and academic exchange are an important way of addressing these issues (see Khadria 2001).

Objectives Of Study

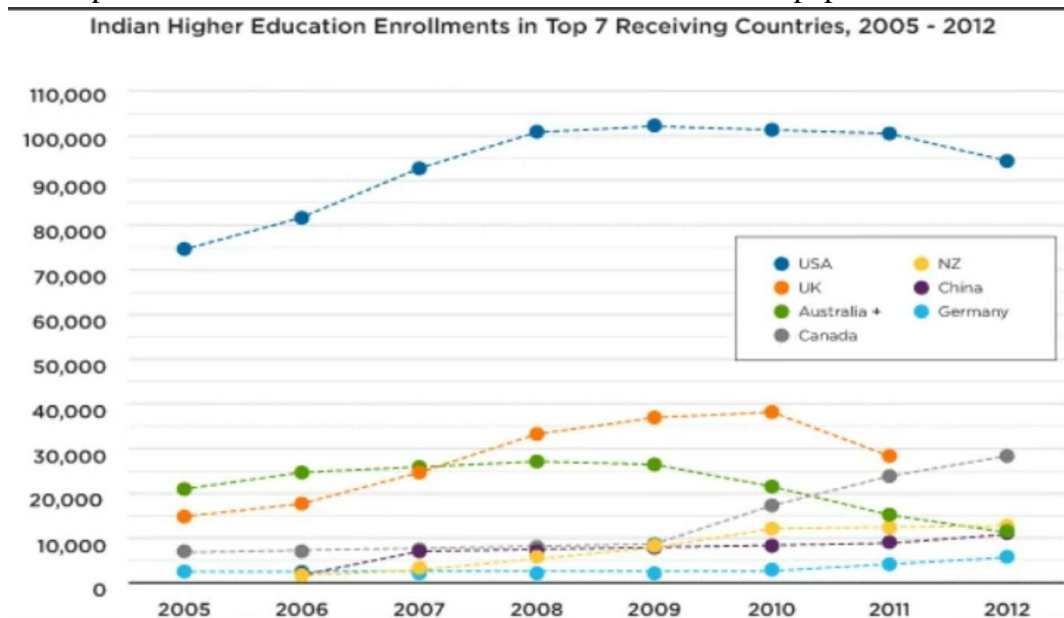
The focus of this study is to ascertain the influence of the three major factors affecting the migration intention of the Indian Populace. These include Age, Gender, and Network Abroad.

The study examines the influence of Age on Migration decisions. Education and migration have been closely linked with each other. Young people with a certain level of education or skills aspire to migrate with the expectation that this transition ought to bring an improvement in their standard of living in comparison to what they would have attained in their home country.

The study also attempts to examine the relationship between ‘Gender’ and ‘Inclination to Migrate’. The roles, expectations, and responsibilities associated with being a man or woman significantly affect all aspects of the migration process, therefore, it is crucial to understand how gender interacts with migration.

The third objective of the study is to determine the relationship between ‘Network Abroad’ and peoples’ ‘inclination to migrate’. Having a network abroad in terms of family, friends, or colleagues eases the migration process. Family relationships and the strength of social ties directly influence young people’s decision to migrate.

The rest of the paper is organized as follows. Section 2 provides a brief review of the literature. Section 3 entails hypothesis development. Section 4 describes the research methodology used in achieving our objectives. Section 5 details the findings and statistical analysis. Section 6 presents the discussion. Lastly, Section 7 presents the conclusion and limitations of the research paper.



Country-wise data on the number of students going abroad for higher studies

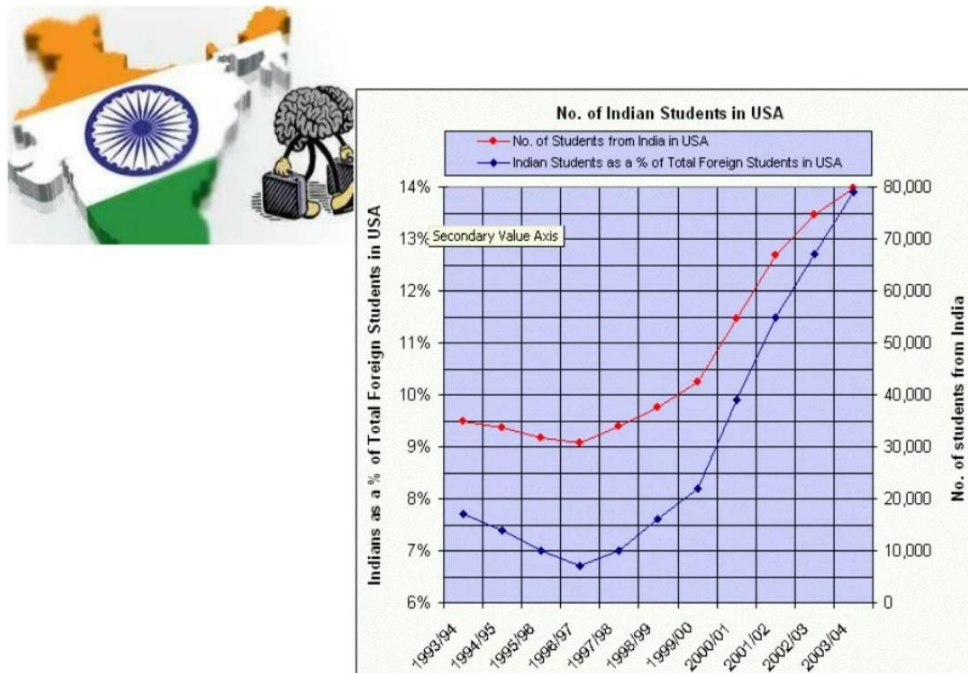
Country	Students going abroad (per year)
China	421,000
India	153,300
Republic of Korea	105,300
Germany	77,500
Japan	54,500

Source: UNESCO’s Report- Global Education Digest, 2009

Negative and positive effects of the brain drain

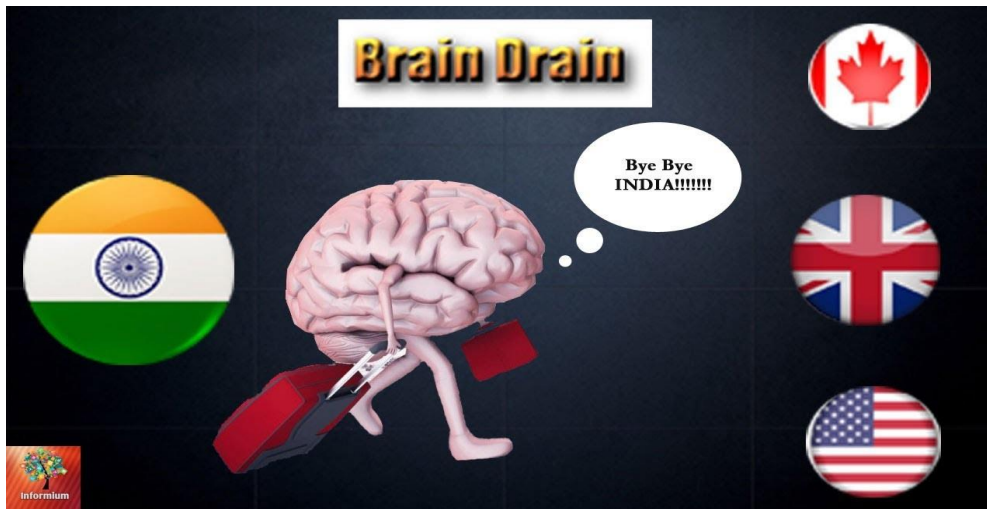
- The migration of highly skilled professionals has some negative effects on affected countries of emigration.
- However, these migration flows can also have positive effects where countries of origin benefit in other ways-primarily from remittances, but also sometimes from technical assistance from the outflow of highly skilled professionals residing and working elsewhere.

BRAIN DRAIN: BANE FOR INDIA



Source : UNESCO

- Brain drain is one of the earliest phenomena associated with globalization which has significant adverse effects at the local level.
- The departure of skilled workers can weaken developing countries, especially smaller ones, by depriving them of important skills and workforce.
- This can prevent or limit innovation, business growth and national development.
- Development can be particularly impeded by the outflow of professionals in the health, education and agricultural sectors. The impact varies based on the demographics and level of development of countries.
- Brain drain is also criticized for producing a fiscal burden on the country of origin as it loses out on the skills of a publicly trained and educated workforce.
- Also research on migration patterns between the 1960s and 1990s indicates that high levels of skilled migration has contributed to slowing the economic growth and development of sending countries, increasing inequality and poverty.



Source: Informium

- It is argued that brain drain robs poorer nations of research and innovation potential, thereby limiting the growth and development of local academic teaching and research institutions as well as other public sector institutions. With fewer skilled migrants, developing countries might also benefit from fewer investments, further entrenching this problem.
- Research on migration patterns between the 1960s and 1990s indicates that high levels of skilled migration contributes to slow economic growth and development of sending countries, increasing inequality and poverty.
- The study seeks to look at several propositions in the form of claim (H) in order to confirm the statistical significance of the relationship between the various constructs for the investigation; three claims have been generated based on the literature.



Indian Government's initiatives to prevent skilled resource pool from going abroad and ensuring their safe return

Source : TheHindu

Claims to test:



The study seeks to look at several propositions in the form of hypothesis (H) in order to confirm the statistical significance of the relationship between the various constructs. For the investigation, three hypotheses have been generated based on the literature.

H1: Population within the age group of 18-21 years is associated with greater Intention to migrate abroad.

H2: There is a significant positive relationship between the Male population and their intention to migrate abroad.

H3: The strength of social ties (Network Abroad) of students in the host country will have a significant positive association with their intention to migrate abroad.

Research Methodology:

For this research, primary data sets were considered. A quantitative approach with a prospective cross-sectional study design was conducted in the Delhi-NCR region.

A self-administered online questionnaire was used for the data collection, based on the research objectives formulated, from the respondents via personal touch and email. The questionnaire consists of socio-demographic information in the first section and questions related to the factors that may affect the inclination to migrate abroad of an individual in the second section. It has a total of 16 questions, which includes eight questions for demographic information, three questions rated on a 5-point Likert scale, and two questions rated on a 3-point Likert Scale. Convenience Sampling was chosen as the sample collection method for the samples to be easily available by accessibility and contact. Furthermore, targeted sampling is done wherein specific cohorts of students applying for Graduate, Post graduate, Research, Professional courses and trainings courses were found from UK, America. This secondary targeted sample is taken from Library of American/Uk consulate, International course training centres and from the data for students applying for Visa at embassy.

A total of 113 responses were received. Out of 113, 23 responses did not meet the eligibility criteria. **90 people** aged between 18 to 25 years from Delhi-NCR and non-STEM courses were selected as the sample for the study. The study includes responses from Generation Z, majorly including Undergraduate and Postgraduate students. They constitute either full-time students pursuing their

research interests or working professionals who are undertaking further studies to obtain better opportunities for career advancement or remuneration. These graduates become more migration-friendly as their qualifications improve (Beine et al., 2008). Postgraduates are also expected to be more mature in understanding brain drain as they form the highest cluster of education levels and their perceptions might be based on prior experience. (Chandar et al., 2015).

A pilot test was carried out when the questionnaire was completed by sharing it among 10 respondents. It was done to gather valuable feedback and review on the terms used in it and to confirm that there is no ambiguous question. An analysis of the non-participants does not indicate any bias concerning gender, age, or study programs. Statistical techniques such as descriptive statistics, variance and other statistical tools are applied in order to study the objective and achieve the goal.

Indian Students Studying Abroad – 2019

Country	Undergraduate Students	Postgraduate Students
USA	13%	87%
UK	29%	71%
Canada	13%	87%
Australia	79%	21%
Other countries	20%	80%

Source : www.immigrationworld.com (for Post-graduate education)

Findings And Analysis



Profile of the respondents:

Among the respondents, 45 (50%) of them are male while 45 (50%) respondents are female. The respondents in this study are from Generation Z. Out of 90 respondents, 71 (78.88%) are aged between 18 and 21 years and 19 (21.11%) respondents are between 22 and 25 years of age. The majority of the respondents are in Commerce and Arts programmes. Out of the 90 respondents, 67 (74.44 %) of these respondents are currently enrolled in undergraduate programs, and 8 (8.88%) have completed their undergraduate courses. Among the postgraduate students, 11 (12.22%) are currently enrolled in research programs, while 9 (10%) have successfully completed them. The respondent profile also consists of 1

(1.11%) student who is currently enrolled in a doctorate program.

A. Age and Inclination to Migrate Abroad:

This subsection studies the relationship between ‘Age’ and ‘Inclination to Migrate Abroad’. Age is a significant factor that is considered while making the decision to migrate. Generally, it is seen that there is a negative relation between Age and Migration as the likelihood of migration decreases with age. Young people are more likely to move abroad for better studies and work conditions, more opportunities for personal development and for exploration. Population within the age group of 18-21 years is associated with greater Intention to migrate abroad.

To test the claim, we are performing the following analysis:

- total 16 questions
- Number of responses = 113
- (23 responses did not meet the eligibility criteria)
- Out of 90 respondents, 71(78.88%) are aged between 18 and 21 years
- 19 (21.11%) respondents are between 22 and 25 years of age
- The respondents in this study are from Generation Z
- 45 (50%) female proportion of female
- 45 (50%) male proportion of male
- 90 people aged between 18 to 25 years
- The majority of the respondents are in Commerce and Arts programmes
- Out of the 90 respondents, 67(74.44%) enrolled in undergraduate programs
- The respondent profile also consists of 1 student who is currently enrolled in a doctorate program
- (10%) have successfully completed post graduation
- (8.88%) completed their undergraduate courses.
- Among the postgraduate students, 11 (12.22%) are currently enrolled in research programs.
- Link for the Questionnaire (Google Form)

In consideration of the pandemic, an online survey was carried out. As a proof of survey the following link has been attached for the reader’s kind appraisal :

https://docs.google.com/forms/d/e/1FAIpQLSfzGNZ6xQ1qgRYpbT5aboAl2u5P0VpfKbP6wk_FSA/viewform?usp=sf_link [V3zzxSQv](#)

Formulas Used

- Variance = $\text{Sigma}(X - \text{mean}(X))^2 / N - 1 = \text{Sigma}(X - 3.3803)^2 / 113 - 1$
- Standard Deviation = (s) = square root ($\text{Sigma}(X_i - \bar{X})^2 / N - 1$) = square root (Variance) = square root (0.9819)

Table 1: Mean, variance and standard deviation of the primary data of the respondents

Age profile	Mean (μ) = \bar{x} = $\Sigma fx / \Sigma f = \Sigma fx / 1$	Variance (σ) = $\Sigma (X_i - \bar{x})^2 / N - 1$	Standard Deviation (s)
8-21 Year Old Respondents	3.3803	0.9819	0.9909

2- 25 Year Old Respondents	3.7368	0.5380	0.7335
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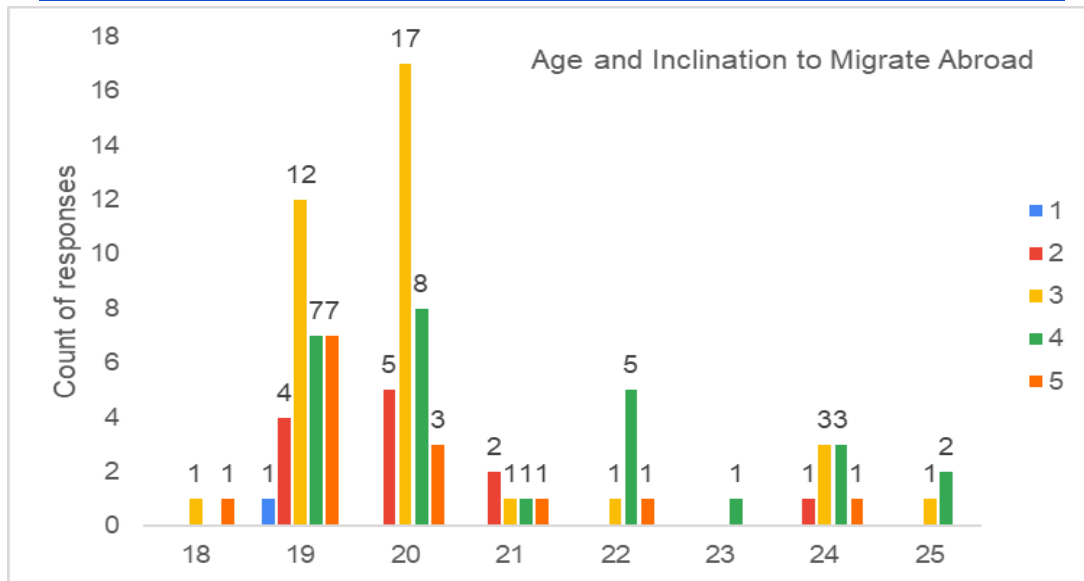
Source: Authors’ calculation of primary data

Link to the Excel Sheet data file :

American, UK data on migrants.

<https://docs.google.com/spreadsheets/d/1HL5EXpwGgOMKvfKxmMksXPWx0Ud7qj37rl-4Whms6uU/edit#gid=0>

Figure1: Response count of the individual’s ranking of migration intention on the basis of age, where 1 represents strongly not inclined and 5 represents strongly inclined.



Source: Authors’ calculation of primary data

This implies that there is a significant difference between the mean age group of 18-21 years and the mean age group of 22-25 years, i.e., people aged between 18 - 21 years have a greater intention to migrate abroad than people aged between 22 - 25.

B. Gender and Inclination to Migrate Abroad:

- This subsection studies the relationship between Gender and Inclination to Migrate Abroad and tests their significance at 5 per cent.
- Gender is an important variable that influences migration decisions. It influences the reasons to migrate, who migrates and to where, opportunities and resources available in destination countries etc.
- A common factor between men and women to migrate is to seek better opportunities.
- While for some women, migration allows seeking more economic independence and freedom, to escape from gender-specific discrimination and for some, it is a norm to join their spouse after marriage.

H2: There is a significant positive relationship between the Male population and their intention to migrate abroad.

To test the claim, we are performing the following analysis:

$$\text{Mean } (\mu) = \bar{x} = \Sigma fx / \Sigma f = \Sigma fx / 113$$

The formula for variance for a sample set of data is $\text{Variance} = \Sigma (X_i - \text{mean}(X))^2 / N - 1$

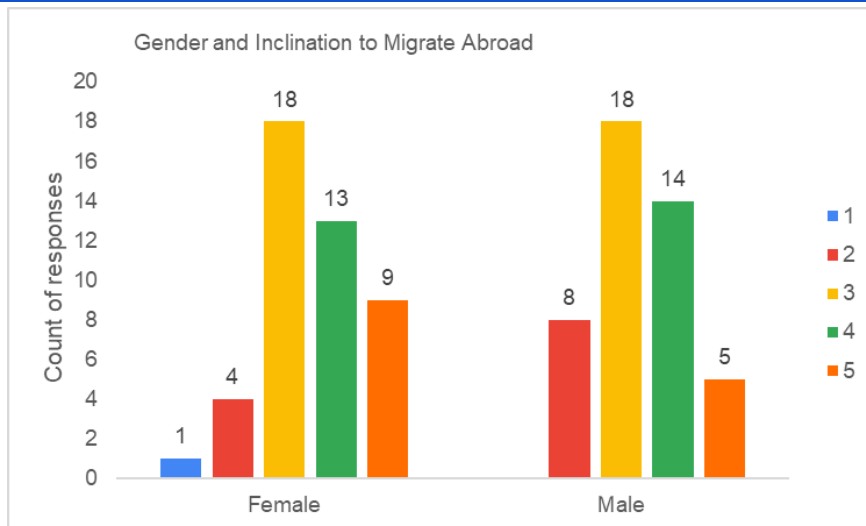
Standard Deviation = (s) = square root ($\Sigma (X_i - \bar{x})^2 / N - 1$) = square root (Variance)

Table 2: Mean, variance and standard deviation of the primary data of the respondents

	Mean (μ)	Variance (σ)	Standard Deviation (s)
Male Respondents	3.5556	0.8253	0.9898
Female Respondents	3.3556	0.9798	0.9084

Source: Authors’ calculation of primary data

Figure 2: Response count of the individual’s ranking of migration intention on the basis of gender wherein 1 represents strongly not inclined and 5 represents strongly inclined.



Source: Authors’ calculation of primary data

This implies that there is no significant difference between the mean values of males and females, i.e., females have equal intention to migrate abroad as the male population.

C. Network Abroad and Inclination to Migrate Abroad:

This subsection studies the relationship between Network Abroad and Inclination to Migrate Abroad and tests their significance at 5 per cent.

Social networks affect many aspects of the migration process and play a significant role in migrants’ lives. Family and friends in migrant destination countries could help reduce challenges that prospective migrants are likely to face by providing information related to living conditions as well as other support that will help them fit into the new environment.

H3: The strength of social ties (Network Abroad) of students in the host country will have a significant positive association with their intention to migrate abroad.

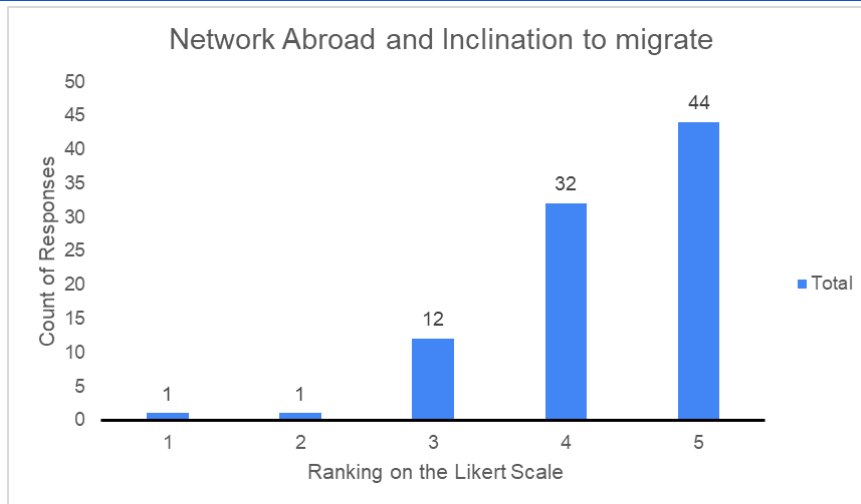
To test the claim, we are performing the following statistical analysis:

Table 3: Mean, variance and standard deviation of the primary data of the respondents

Mean	4.3
Standard Deviation	0.8272
Sample Variance	0.6842

Source: Authors' calculation of primary data

Figure 3: Response count of the individual's ranking of migration intention on the basis of Network Abroad wherein 1 represents strongly disagree and 5 represents strongly agree.



Source: Authors' calculation of primary data

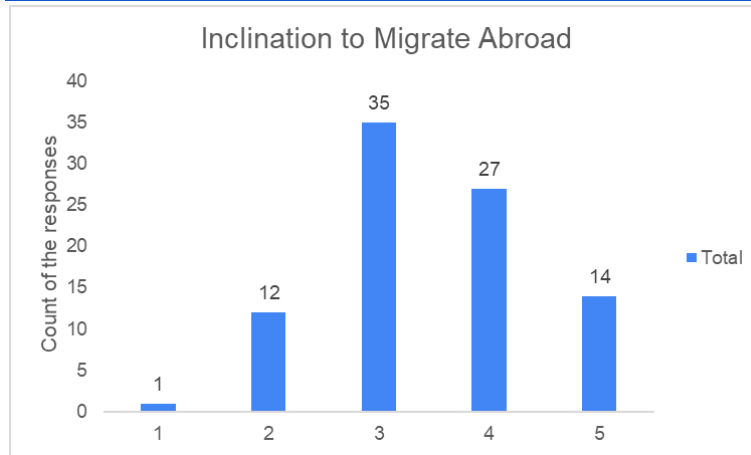
This implies that there is a significant positive association between the network abroad and people's inclination to migrate abroad.

Based on the results analyzed, H(1) and H(3) are not rejected since there are significant findings to support the statements. Contrary to the expectation, H(2) is rejected due to insignificant findings.

Discussion of claims tested:

When the respondents were asked to rank their inclination to move abroad on a scale of 1-5, 1 being strongly not inclined and 5 being strongly inclined, 9 out of 45 females, i.e. 20%, ranked 5 on the scale which meant that they were strongly inclined to move abroad while 5 out of 45 males, i.e. 11.11% were strongly inclined to move abroad. The majority of the respondents i.e. 18 females (40%) and 18 males (40%) ranked 3 on the scale. This deduces that they were neutral about their inclination decision. There was only one female who ranked 1 on the scale which meant that she was strongly not inclined to move abroad while there was no male who ranked 1 on the scale. The Average value of Inclination to migrate Abroad stands at 3.5 which implies that the overall average response lies in the 'Inclined Interval' of the Likert Scale.

Figure 4: Response count of the individual’s ranking of migration intention wherein 1 represents strongly not Inclined and 5 represents strongly inclined.



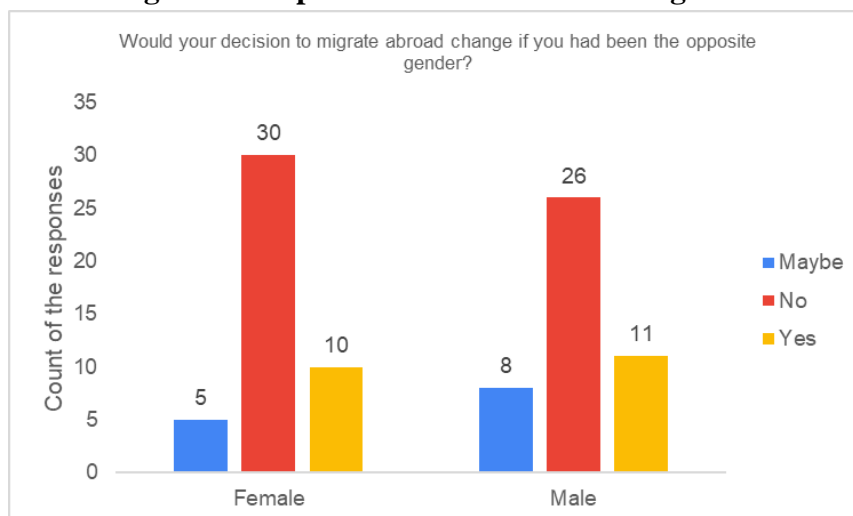
Source: Authors’ calculation of primary data

Furthermore, the study serves the purpose of examining the following questions :

When asked the question ‘If you had been the opposite gender, do you think your migration decision would have been different?’

- 66.67% of female respondents believed that being of the opposite gender would not have affected their inclination to migrate abroad, while 22.22% of the female respondents were of the view that being of the opposite gender would have affected their decision. 11.11% were unsure if gender played a role in their migration decision.
- On the other hand, 57.78% of the male respondents were of the view that their decision to migrate abroad would not have been affected if they were of the opposite gender.
- Roughly, 24% of the male respondents believed that their decision would have changed if they were of the opposite gender. However, 8 out of 45 male respondents, i.e; 17.18% were not sure if being opposite in gender would have changed their decision.

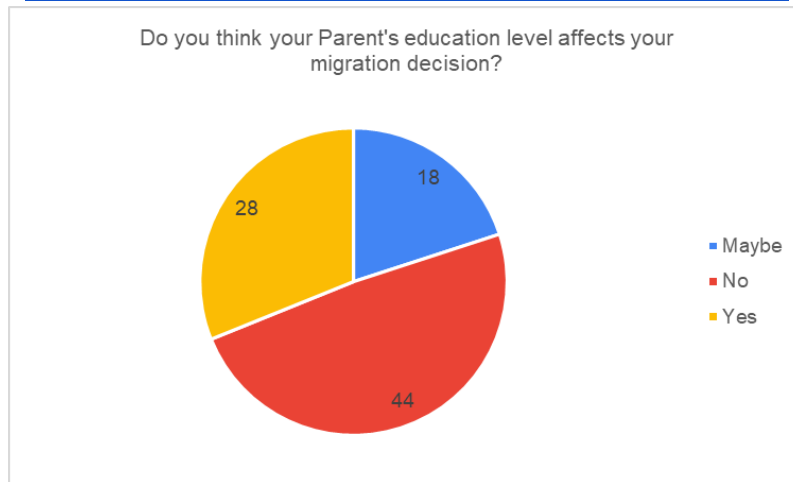
Figure 5: Response count on the basis of gender



Source: Authors’ calculation of primary data

The average of the responses to the question ‘Do you think your parents' education level affects your choice of migrating abroad?’ was 1.8. This indicates that people were not confident if their parents' education level affected their choice to migrate as an average of 1.8 falls under the category of ‘Maybe’ under the Likert scale interval.

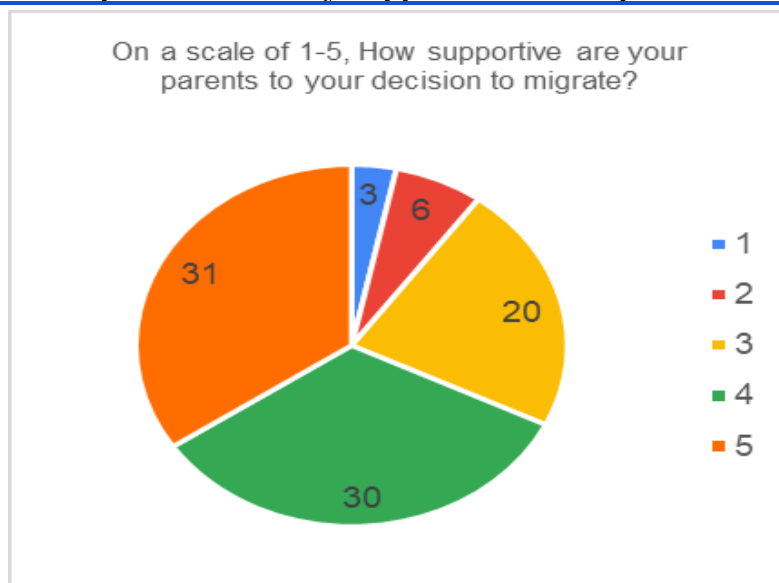
Figure 6: Response count of the individual’s ranking of migration intention wherein 1 represents strongly not Inclined and 5 represents strongly inclined.



Source: Authors’ calculation of primary data

International student mobility is evidently a family decision. Parents’ support is crucial for moving abroad, in moral and financial terms. The average of the responses to the question ‘How would you rank your family's support influencing your migration decision?’ is 3.9 which falls under the Interval 'Supportive' on the Likert Scale indicating that the parents of the respondents were supportive of their child's decision of migrating abroad.

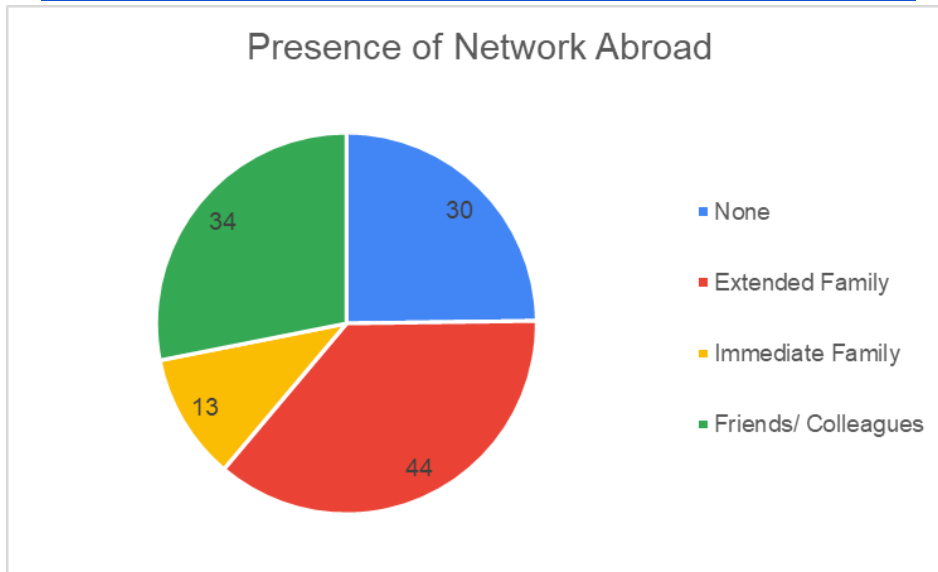
Figure 7: Response count of the individual’s ranking of their parent’s support in their migration decision, where 1 represents Not very Supportive and 5 represents Very Supportive.



Source: Authors’ calculation of primary data

When the respondents were asked if they have any social ties abroad in terms of Immediate Family, Extended Family, Friends/Colleagues or None, the majority of them responded that they have extended family (36.36%) and friends/colleagues (28.09%) living abroad. 10.74% of the respondents said that their immediate family lives abroad, while 24.79% of them responded that they have no one from the mentioned options living abroad.

Figure 8: The pie chart depicts the response count of the individual's social ties abroad in terms of immediate family, extended family, friends/colleagues and none.

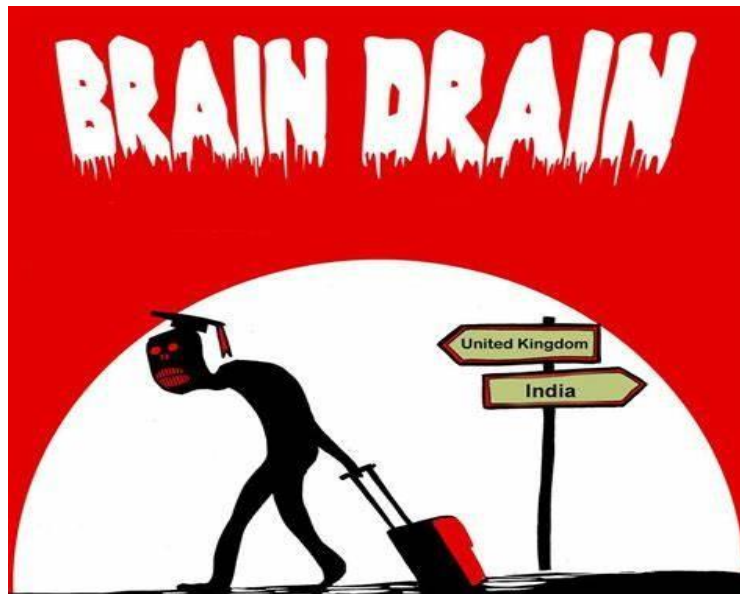


Source: Authors' calculation of primary data

When the respondents were questioned about the purpose of their migration, the majority said that they want to migrate because of better education facilities (23.53%), better job opportunities (24.89%), quality of life (24.43%), and a desire to experience something new (16.29%). 5.88% of the respondents said that their reason to migrate is their attraction to westernization. While roughly 4% of the respondents also stated that they want to migrate because of political instability in their home country. The majority of the respondents prefer migrating to the west. Some of the preferred countries are the Americas, the UK, Sweden and Australia.

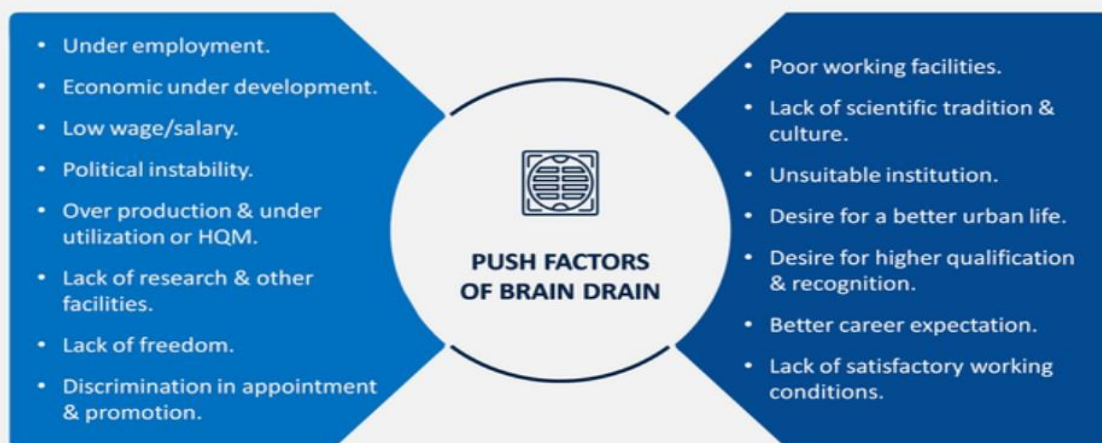
CONCLUSION

Concluding the analysis and empirical results of the study, this assessment of inclination to migrate abroad, using Microsoft Excel on 90 samples confirms that people might have different reasons to leave their home country. Whether an individual plans a career in academia or wants to work in a company has a decisive influence on where they see themselves in the near future. The reasons include better education prospects, improved career trajectory and employment opportunities, higher standard of living and yearning to explore new environments.



Youth these days only perceives the gains they are getting in return. This means as long as they realize self-growth in the form of better jobs and good skills, they are willing to migrate abroad for more promising prospects. This research is designed to serve as a stark reminder to all relevant parties involved in order to seriously understand the depth of the brain drain phenomenon. To minimize this, proactive efforts must be made to prevent additional highly skilled Indians from leaving the country. This could be accomplished by focusing on identifying Indian professionals' needs in terms of remuneration, career advancement, overall quality of life, and similar other grounds.

Push Factors of Brain Drain



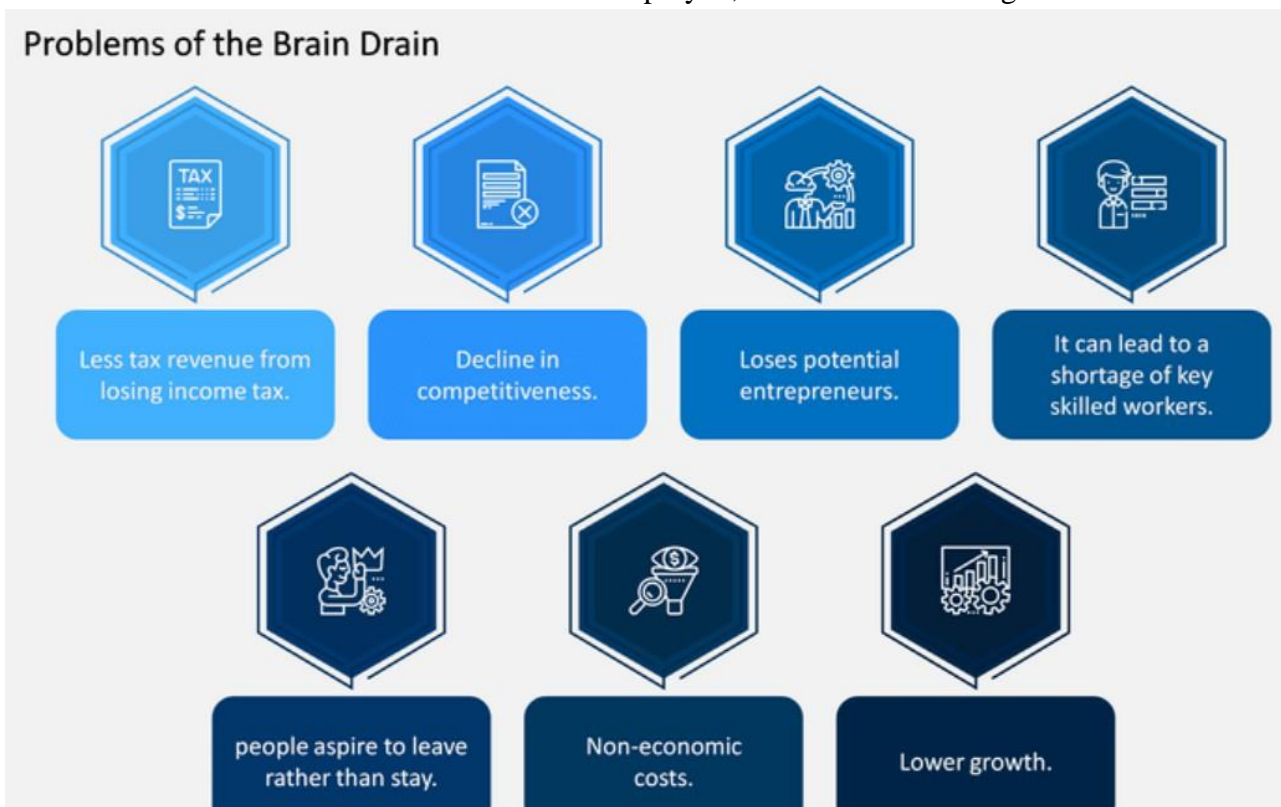
Although, some of the measures made by the Indian government, such as Atmanirbhar Bharat and the Atal Tinkering Lab (ATL) under the Atal Innovation Mission (AIM), are praiseworthy. Additionally, the NITI Ayog-affiliated Ministries of Skill Development and Entrepreneurship (MSDE) and Labour and Employment (MoLE) are working to promote policy/program initiatives and reforms pertaining to concerns with employment,

apprenticeships, and skill development. For instance, the **Tinkerpreneur, ATLs are nudging the younger generation to build an India that is self-reliant and innovative, a nation of proud Indians**

that live, learn and create in India, for the world. But many such steps are yet to be taken by the Indian Government.

Problems And Limitations of research:

While this investigation has made certain meaningful contributions, it is not without flaws. The researchers were unable to obtain a larger sample size for the study due to the pandemic, finances and time constraints. Owing to the respondents' willingness to participate in the questionnaire, response bias may have existed. It's also difficult to deduce if respondents' assessments of the factors influencing brain drain were accurate or influenced by other external forces. Furthermore, for the flow of questions, a common trend in Likert Scales should have been employed, instead of alternating scales of 1-3 and 1-5.



Solutions

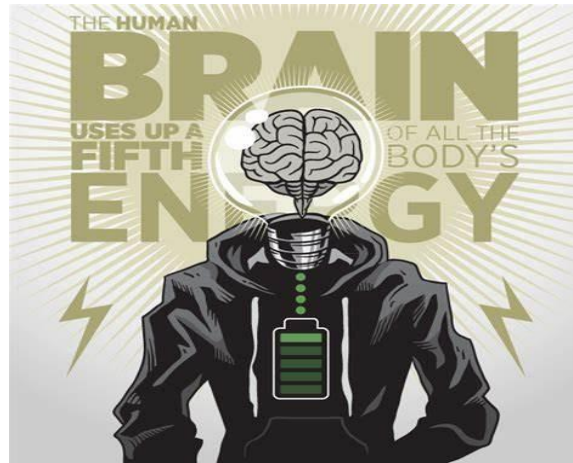
There are various fundamental actions that can be taken to combat brain drain, including:

- Villages are the heart of proper and successful development in India's rural areas. The "Young India" truly wants to help the country advance, but problems arise when there aren't enough possibilities.



- Combating underemployment Employers should take extreme care to address any underemployment that may exist inside their firm. An individual should be hired based on his or her passion, talent, and academic achievement. A person's classification and post are very essential factors in the

effectiveness and execution of their work.



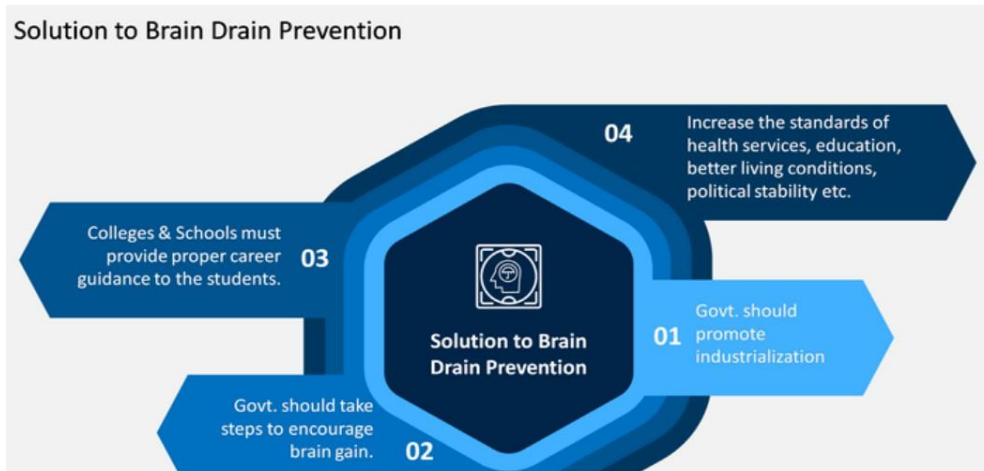
- The compensation an employee receives is one of the elements that determines how satisfied they are with their job. The payment needs to be structured and proper monetary incentives should be paid whenever necessary.
- Taxation – There are a lot of reviews by economists who strongly believe that the taxation policy in India leaves much lesser scope for savings. Also, the allied issues remain in the dissatisfaction of taxes not being utilized to solve various issues in the country. Taxes thus hamper the mindset of a person in two ways by pinching their pockets and with issues like corruption, red tapism, etc.



More Indian businesses in the pharmaceutical, electronics, ICT, and other sectors should hire new graduates with competitive packages, generous benefits, and respectable working conditions. This encourages young people to work in India and reap the rewards of their accomplishments.

- Work Culture It is well known that most organizations in India don't operate under strict rules or have a positive work environment. This results in office politics, poor communication, a lack of grievance redress, etc., which causes tension and anxiety in the workers. Many workers leave the

country to work in foreign countries where they expect a decent work environment rather than remaining in one with a poor work culture.



Annexure

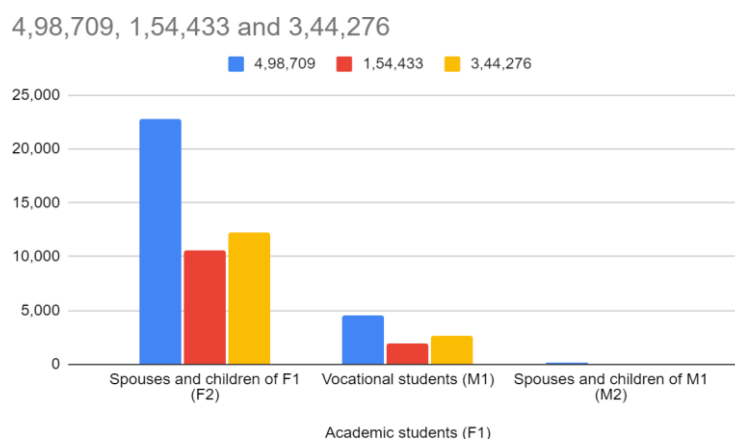
- Link for the Questionnaire (Google Form) :proof of conducting survey
https://docs.google.com/forms/d/e/1FAIpQLSfzGNZ6xQ1qgRYpbT5aboAl2u5P0VpfV3zzxSQvKbP6wk_FSA/viewform?usp=sf_link

- Link to the Excel Sheet data file :

1. American, UK data on migrants.

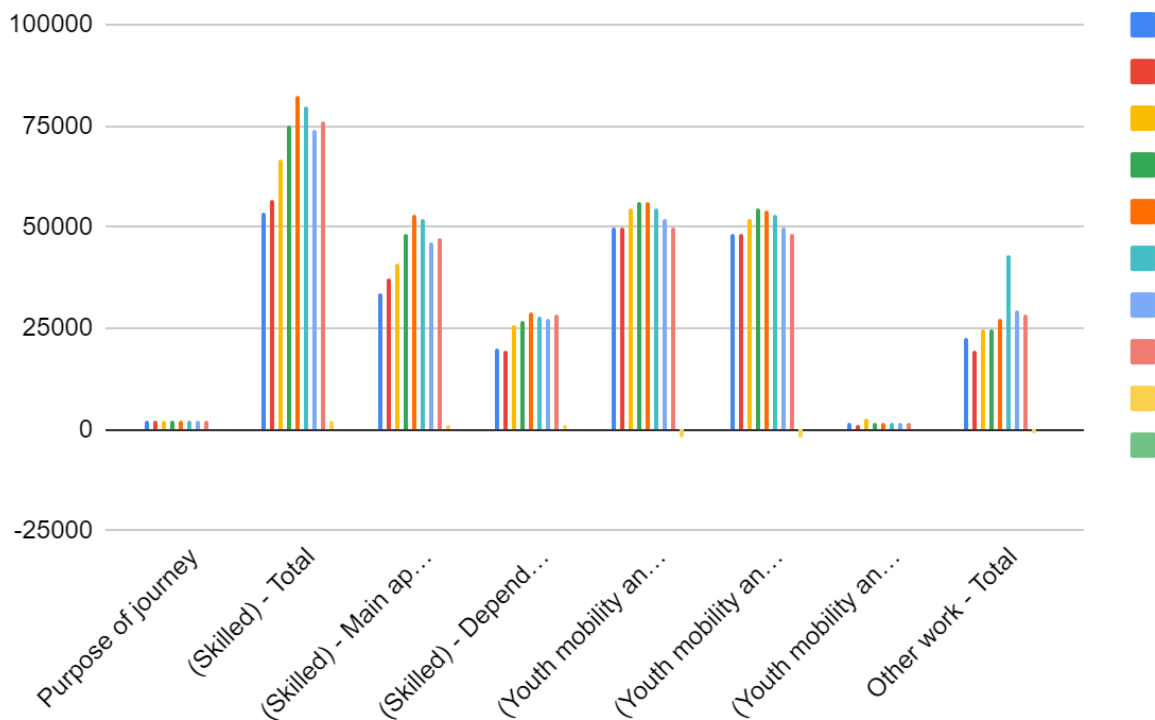
<https://docs.google.com/spreadsheets/d/1HL5EXpwGgOMKvfKxmMksXPWx0Ud7qj37rl-4Whms6uU/edit#gid=0>

Class of admission	Total	Quarter 1	Quarter 2
immigrant Students in America	5,26,258	1,66,994	3,59,264
Academic students (F1)	4,98,709	1,54,433	3,44,276
Spouses and children of F1 (F2)	22,787	10,561	12,226
Vocational students (M1)	4,573	1,908	2,665
Spouses and children of M1 (M2)	189	92	97



UK Passenger arrivals (admissions) summary tables, year ending December 2021										
Source :	https://www.gov.uk/government/statistical-data-sets/immigration-statistics-data-tables-year-ending-december-2021									
Non-EEA passengers given leave to enter the UK by purpose of journey										
Purpose of journey	2011	2012	2013	2014	2015	2016	2017	2018	Change (latest year) Number	Change (latest year) %
(Skilled) - Total	53,600	57,000	66,900	75,300	82,400	80,100	74,000	76,200	2,260	3%
(Skilled) - Main applicant	33,700	37,600	41,300	48,200	53,200	51,900	46,400	47,500	1,080	2%
(Skilled) - Dependant	19,900	19,400	25,600	27,100	29,200	28,200	27,600	28,700	1,180	4%
(Youth	50,000	49,900	54,700	56,200	56,000	54,600	51,800	50,000	-1,730	-3%

mobility and temporary worker) - Total					000	00	00	00		
(Youth mobility and temporary worker) - Main applicant					54,700	54,400	53,000	50,000	48,300	
	48,500	48,500	52,000							-1,690 -3%
(Youth mobility and temporary worker) - Dependant					1,520	1,620	1,590	1,780	1,740	
	1,470	1,440	2,690							-35 -2%
Other work - Total					24,800	27,600	43,100	29,600	28,600	
	22,600	19,400	24,800							-1,010 -3%



Source : Author’s Analysis

The following Likert Scale intervals have been used for the analysis.

Likert Scale Used			Intervals
Strongly not Inclined	Strongly Disagree	Not very Supportive	1-1.8
Not Inclined	Disagree	Not Supportive	1.9-2.6
Neutral	Neutral	Neutral	2.7-3.4
Inclined	Agree	Supportive	3.5-4.2
Strongly Inclined	Strongly Agree	Very Supportive	4.3-5

Likert Scale Used	Intervals
No	1-1.67
Maybe	1.77-2.34
Yes	2.44-3

Reference of Keywords

1. Convenience sample:

It is a type of non-probability sampling method where the sample is taken from a group of people easy to contact or to reach, for example, standing at a mall or a grocery store and asking people to answer questions. This type of sampling is also known as grab sampling or availability sampling.

2. correlational research design:

A correlational study is a type of research design where a researcher seeks to understand what kind of relationships naturally occurring variables have with one another.

3. Likert scale:

It is used to measure attitudes, knowledge, perceptions, values, and behavioral changes. A Likert-type scale involves a series of statements that respondents may choose from in order to rate their responses to evaluative questions (Vogt, 1999).

4. Prospective cross-sectional study design :

A prospective study design implies follow-up visits with multiple tests. A cross-sectional study design implies one visit or single test.

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