

Full Length Research Paper

Who gains from “brain and body drain” business - developing/developed world or individuals: A comparative study between skilled and semi/unskilled emigrants

Gazi Mahabubul Alam* and Kazi Enamul Hoque

Faculty of Education, University of Malaya, 50603 Kuala Lumpur, Malaysia.

Accepted 6 February, 2010

A theory often advanced is that the ‘brain drain’ of third world graduates to the first world generates a high income of foreign currency, and that this income contributes to the development of third world, In this paper, however, we put forward the theory that semi/unskilled emigrants currently contribute the higher income of foreign currency. Although the highly skilled group may earn higher wages, they do not necessarily send large remittances back to the third world, mainly because they have settled into a good life in the country to which they have migrated. Moreover, we also emphasise that the cost of producing a highly skilled individual is greater than that of semi-skilled or unskilled graduate. This paper suggests that there is a need for intervention by international donor organisations for global collaboration in order to facilitate the development of the third world by halting the ‘brain drain’. Research for this paper, the first of its kind in nature in its area, has been carried out by mainly interviews.

Key words: Brain drain, first world, physical drain, public money, highly skilled people, working environment.

INTRODUCTION

Rigorous discussion concerning the concept of a ‘brain drain’ began in the early 1980s and continued until the 1990s. The discussion formed a dominant role in scholarly debate aiming for the development of third world (Hazen and Alberts, 2006). However, in the first decade of the 21st century, scholars are convinced that it is widely accepted that the brain drain generates a high income of foreign currency into the third world (Lucas et al., 2006). This has effectively quietened discussions concerning the effect of the brain drain. However, more recent works show that migration of more skilled workers does not necessarily increase the remittances for home country (Faini, 2007 and Docquier et al., 2007). So it is now thus important to bring this discourse at spotlight to scholarly podium to further exploration as crucially the costs of education for skilled emigrants are typically

borne by home country taxpayers. Before discussion the impact of brain drain and underpinning reasons causing brain drain at conceptional framework and literature review section, let us define the term brain drain.

The term ‘brain drain’ is used to denote the migration of highly skilled people from one country to another, particularly from the developing world to the developed world. As Alam and Rahaman (2008) note that:

“Brain drain or human capital flight is a large emigration of individuals with technical skills or knowledge, normally due to conflict, lack of opportunity, political instability, or health risks. Brain drain is usually regarded as an economic cost, since emigrants usually take with them the fraction of value of their training sponsored by the government. It is a parallel of capital flight which refers to the same movement of financial capital” (page, 7).

*Corresponding author. E-mail: gazi.alam@um.edu.my. Tel: + 603-7967 5077. Fax: + 603-7967 5010.

The term was coined by the Royal Society to describe the

emigration of "scientists and technologists" to North America from post-war Europe. The converse phenomenon is brain gain, which occurs when there is a large-scale immigration of technically qualified persons. A simple solution is always provided saying that brain drain can be stopped by providing individuals who have expertise with career opportunities and giving them opportunities to prove their capabilities (Solimano, 2002). However, this is not possible for many reasons and this becomes merely impossible at the era of globalization and internationalization (Alam, 2008).

Brain drains are common amongst developing nations, such as the former colonies of Africa and Southeast Asia, the island nations of the Caribbean, and particularly in centralized economies such as former East Germany and the Soviet Union, where marketable skills were not financially rewarded (Dumont and Lematre, 2004).

CONCEPTIONAL FRAMEWORK AND LITERATURE REVIEW

Reasons for brain drain

It is quite clear that the political instability generated at developing world gave greater impetus to the emigration process (Alam and Rahaman, 2008). Most studies find that emigration is generally driven by both push and pull factors. The main push factors from the home front include political instability, unemployment and uncompetitive remuneration packages; while pull factors, from the country people are emigrating to, include family reunions, higher living standards and better prospects for children. These factors hold global pattern (Alam and Rahaman, 2008, Agrawal et al., 2008, Barro and Lee, 2001).

Impact of brain drain

The impact of emigration, often referred to as "brain drain", on developing nations' economy is quite difficult to estimate, mainly due to data constraints (Agrawal et al., 2008). However, for the purpose of this brief, we have tried to analyse the effects of brain drain by looking at some theoretical and empirical aspects. Economic theories suggest that brain drain has both supply side and demand side effects on an economy. The supply side effects are normally reflected through the factors of production, in this case a reduction in the labour force (Beine et al., 2001). This results in an inward shift of the home country's production possibility curve (PPC). Thus, the productive capacity of the nation falls, which means that economic growth (real GDP) declines. The magnitude by which economic growth decreases is determined by the following factors: The volume of emigration; The level of education and skills of the emigrants; The amount of money (savings/investment) emigrants take with them;

and the scarcity factor is also important (Commander et al., 2004).

Generally hypothesis is that the more educated and skilled the emigrants, the greater the impact on economic growth. The demand side effects of brain drain affect both public and private consumption and investment spending. Brain drain places a strain on government's ability to provide public services, in two ways:

It reduces the revenue base through decreases in incomes and corporate taxes, as well as other forms of tax collections (Value Added Tax). This inevitably affects, amongst other things, government's allocations for education, health and law and order (Dumont et al., 2005).

Brain drain also reduces the quality of public services. Private investment and consumption spending also decline, as emigrants normally take all their savings/investment when they leave the country. This usually has broader implications on all sectors of the economy (Faini, 2007).

A number of studies on the effects of brain drain have reported mixed views (Ahlburg, 1991). Some economists suggest that brain drain does not lead to a loss in economic welfare of the home country, mainly because there are other workers who can replace the emigrants quite easily. The primary assumption underpinning this view is that there exists a surplus pool of labour from which replacement workers can be drawn. The contrary argument is that emigration does cause welfare losses to the home country. This is based on the view that the surplus pool of labour may not be able to successfully replace the highly skilled workers who have left, as they lack the necessary qualifications and experience (Yang 2006). This is most likely to occur in highly skilled professions, particularly in the areas of health, education and other specialized services.

It is argued that the efficiency (productivity) of those who replace the emigrants is generally lower. This often results in a reduction in economic growth (Saxenian, 2005). In some instances the same level of economic growth may be achieved, but at a higher cost. Training replacement workers, so that earlier levels of economic growth can be obtained with greater efficiency, is likely to incur additional expenses. A number of empirical studies carried out on around the world support the view that emigration does in fact create a huge welfare loss to the home country. The major findings reveal that the supply side effects are evident, to some extent, in developing countries' labour force participation. During the 1980 - 1987 period when emigration levels were low, growth in the labour force averaged around 3.0 percent per annum (Le, 2004). However, after 1987, significant increases in emigration generally led to a slowdown in the growth of the labour force, to an average of 2.0% per year. The annual employment rate for the period 1980 - 1987

averaged 2.8, while after 1987 the annual average was 2.3% (Le, 2004; House, 2001).

During the same period (1980 - 2001), the unemployment rate has generally been stable at 5 - 7%. This suggests that there existed a degree of surplus labour in developing world. However, there were some critical areas, such as the medical profession, teaching and other specialized services, where labour shortages were most acute and still exist today (Alam, 2009). This is because there is already a limited supply of workers in these areas. In addition, there is a time lag between education/training and the hiring process for highly skilled professions. Furthermore, the efficiency (productivity) and quality of these services are likely to drop and this could lead to a general decline in the country's welfare (Alam et al., 2009).

On the demand front, even though it is difficult to quantify, it is expected that government will have lost significant tax revenue through emigration. This could have been used in upgrading infrastructure and technology in schools, hospitals and other vital public services. Although governments of developing countries have continually managed to increase allocations in priority areas, it has not been able to improve the quality of these services substantially (Barro and Lee, 2001). One of the reasons behind this could be that more money has to be spent on current expenditure (higher wages, training costs and hiring expatriate workers) rather than capital expenditure (buildings, equipment and technology). To some extent, the private sector faces similar constraints: the inadequate provision of quality services and spending on current expenditure rather than capital expenditure and research development. In addition, the current high levels of emigration have also affected the already weak investment environment.

While the impact of emigration on economic growth, through the investment channel, can be quantified somewhat, it is quite difficult to ascertain the impact through other channels, such as the labour market (Faini, 2007). One of the reasons for continued growth is that workers in developing world primary sectors - tourism, agriculture, garments, transport and fisheries industries are relatively easily replaced. Furthermore, these days many developing countries enjoy a high literacy rate. This enables replacement workers, particularly in the primary sectors, to reach efficiency levels equivalent to emigrant workers, in a short period of time. Of course, the argument can be made that if emigration levels had remained low, then developing nations' economic growth would quite likely have been much higher.

RESEARCH PROBLEMS AND SCOPE

Above discussions note that it is hard for home country to replace skilled manpower group to ensure better welfare services since development of skilled manpower always

require huge fund and long term commitment. But while the World Bank (2003, 2006) considered that skilled emigrants will typically earn more and may therefore remit more relieving the foreign exchange constraint at home and thus fostering growth, Faini (2007, P 178) proved that

“There is no evidence that skilled workers remit more. This is not so simply because they come from relatively wealthy families. It also reflects the fact that skilled migrants are more likely to spend a longer time abroad, weakening their ties with the home country. As a consequence, the growing bias in receiving countries toward skilled migration may reduce the flow of remittances to sending countries, although this negative effect is not statistically significant”.

On the contrary, semi skilled and low skilled groups migrate on a temporarily basis thus they have more bondage and linkage with home country while they work overseas. This attitude always motivates them to send as much remittance as they can; saving from their earning. Moreover, replacement of workers for this group is comparatively easier as education and training at primary, secondary and higher secondary provisions (technical and vocational) is an increasing feature these days at developing world.

Many types of worker (highly skilled, semi-skilled, unskilled) travel from the developing world to find an employment in a suitable profession and enjoy a higher standard of living in the first world. There are other significant reasons put forward to explain why individuals migrate from the developing world. While we can calculate the contribution made by the emigrants to increase the income of foreign currency, we usually fail to quantify the specific contribution made by highly skilled emigrants by the conducting of a comparative study between the highly skilled and semi-skilled or unskilled groups.

Faini (2007) has conducted an extensive study on brain drain and remittance provided by the skilled emigrant. Faini's study has not exclusively made a comparison amongst skilled, semi-skilled and unskilled groups. We felt that there is a need to conduct an exclusive comparative study between highly skilled and non-highly skilled groups as the way Faini did. Since, no funder is readily available; we conducted a small scale of research to bring the issue to the spotlight. Although a bigger comparative study is a key to explore this issue, while we lack adequate fund to conduct such study, therefore an exploratory study is conducted at a small scale using case study interviews. It seeks mainly an answer as to how much of a contribution is made by either the highly skilled and semi- or unskilled emigrants to increase foreign currency income. In addition, this paper provides answers to the following questions.

- 1.) Why do individual migrate from the third (developing) world?
- 2.) What are the advantages of the brain drain?
- 3.) What are the disadvantages of the brain drain?
- 4.) How emigrants, particularly the highly skilled group, can contribute more significantly to the development of their country of origin?

To help find answers to the questions, we have used fieldwork data from interviews conducted, rather than secondary literature, as the main source of information.

However, secondary sources and documents review will supplement where necessary.

DATA

Qualitative methods were used that allowed interviewees to express their views in a free and personal way, giving as much prominence as possible to their thematic associations.

Semi-structured interviews by qualitative approach were held with:

- Four highly skilled emigrants.
- Four semi/unskilled emigrants.
- Two policy-makers, one from India, the other from Bangladesh.
- Two children of highly skilled emigrants.
- Two children of semi/unskilled emigrants.
- The parent of a highly skilled emigrant.
- The parent of a semi/unskilled emigrant.

Document reviews

Documents reviewed included:

A number of secondary literatures are reviewed to materialise this research.

Documents includes Education budget in Bangladesh and India. Bangladesh Bureau of Educational Information and Statistics - BANBIE's annual statistics books, 1990 – 2004 (sponsored by UNESCO and organised by the Ministry of Education, Bangladesh). University Grants Commission (Both Bangladesh and India) Annual Report, 1994 - 2003. (The Annual Report contains particulars of every university in Bangladesh, whether public or private, and general information such as new development, strategy proposals, etc.).

Interview sample

The subjects of this paper are the respondents of eight interviews. It has been proven that, in order to receive proper, specific and reliable data, attention must be paid to the triangulation of samples (Cohen et al., 2002). We, therefore, selected our respondents from four countries: USA, UK, United Arab Emirates and Malaysia. These particular countries were chosen as each has a significant number of emigrants living and working within them. The first two countries are first world; the latter two are mid-developed. The immigration rules and regulations of each of the countries differ in several ways. Two people were selected from each country, one with highly skilled emigrant status and the other with semi/unskilled status. Moreover two kinds of dependents are selected. One of them is children and the other is parents. In order to do so, we selected the children and parents of both groups (that is, highly

skilled and non-highly skilled). We decided to take the views of children and parents because it provides a clear idea on family background, bondage and linkage to home and overseas and future plan in terms of long run family planning and settlement. In addition, policy-makers are selected to understand their views and future policy direction in this issue. We tried to talk to policy makers of developed countries and donor agencies but failed to manage; as no one responded to our email communication expressing willingness to be a respondent.

Selection of interviewees

In order to select the respondents, we provided leaflets at different Bangladeshi and Indian grocery and entertain-ment shops located at different 'destination countries' as mentioned earlier requesting to be a respondent of our research. This leaflet precisely explained our research aims and objectives. We also put a request explaining our research aims and objectives at few different types of websites where both highly skilled and non-highly skilled emigrants (mainly Bangladeshis and Indians) visit for various purposes (Scholarly exchange, entertainment and cultural news and information exchange). A request was made to provide contacts of dependents who are living in home and host country. While, we received fairly large responses from non-highly skilled group, the responses from highly skilled groups were few. However, we categorized the respondents as highly skilled, non-highly skilled, and dependents for the specific countries we targeted. Within the responses received; following the lottery system; we randomly selected the respondents of each category and country. Thereafter, we started communicating with them by emails and phone calls before final interviewees took place as to build up rapport. Few respondents turned off to be the interviewees after our initial contact. We then restart selecting another respondent following earlier method. However, it is worth mentioning this quote from Faini's (2007, p. 181) "it may also be interpreted as showing that educated immigrants are reluctant to be interviewed again."

SIGNIFICANCE OF RESEARCH TECHNIQUES ADOPTED

Some may question why a large sample or quantitative approach was not used, thus allowing for greater pool of information. However, there are particular reasons why a fairly small sample was chosen. This is explained below. Firstly, this research investigated some issues that are very new and unique in their nature. Lack of relevant previous works restricts the researchers to have an idea helping them to design quantitative tools (Alam, 2009). Investigation of a completely new area often demands qualitative approach since many successful works done by qualitative approach provide parameters or metaphors to design the tools applicable to quantitative approach. Secondly, nature of the inquiry required an in-depth insights rather than straightforward or simple opinions or statistics. It is worth mentioning that before choosing interview tools, as emigrants, we tried with co-emigrants and found that skilled group are not interested to exchange information at written form. We also tried to make survey providing questionnaires to the emigrants' family living both at home and host countries but we noted that members of the family always seek permission

in exchanging information from the principal emigrant who is considered as guardian of the family. Thirdly, funding and time limitations were also important to note. However, since the issues were important to be highlighted, quantitative interviews subsidised by case study style brought many insights of the problems that would help further researches to be conducted at this field.

DATA ANALYSES

The basic skills required of the researcher to analyse (...) qualitative or symbolic material involve collecting, classifying, ordering, synthesising, evaluating and interpreting. At the basis of all these acts lies sound professional judgement (Cohen and Manion, 1994:55).

This statement adequately presents our work and efforts during the stage of the analysis of the findings. The data we collected were of two kinds: documents and interviews. Details are as follows.

The document and literature review provided us with an excellent opportunity to get first hand idea (Bell 1993). As suggested by Cohen et al (2002) the collection of required documents needs a level of understanding with the designated people. Our regular email contact with them helped us to build up a small amount of understanding. The document review helped to prepare different semi structured questions for the different people targeted.

Interviews

Interviews were the main method we relied on to receive clear answers to our research questions. We briefly examine the interview techniques which we applied with a view to eliciting valid and reliable answers (Bell, 1997, Cohen et al., 2002).

First let us explain the reason for choosing the semi-structured interview. As suggested by Cohen et al. (2002) and Kane (1997) as well as Bell (1993), before conducting final interviews with the respondents, the researcher needs to conduct trial interviews with colleagues. We conducted trial interviews with colleagues and discovered that we needed to ask some further questions after receiving the answers of the respondents so we decided upon the semi-structured interview technique.

Before starting the formal conversation, we took a minute to explain the research title and the purpose of the research, to give an instant idea of the research focus. (We had already mailed the research proposal to them along with title, aim, and research questions). We also assured them of the confidentiality of their replies (Bell, 1993, Cohen et al., 2002). Each interview lasted 50 - 60 min. Keeping the research questions in mind, we asked several indirect questions and the respondents' answers

led me to ask further questions, especially to justify the advantages and disadvantages of "Brain Drain".

We asked all the respondents at the last stage of our conversation "can you tell me anything more which we did not ask you but which you think might benefit my research". After this prompt we got quite a lot of useful information from my respondents.

The exact sequence of the interview questions was altered mid-interview to allow a normal conversation to take place, a strategy advised by Bell (1993). After each interview, we took care to thank the participants and to provide them with feedback which was generally positive or constructively critical. It was not our intention or desire to leave respondents' feeling in anyway "humiliated", "alienated" or "insecure" (Cohen et al., 2002 p 59). However, as suggested by Cohen et al. (2002), before starting formal conversation just after my initial compliments and introductory statements, we sought permission to use the recorder. All of my respondents were kind enough to permit us to record their voice. As a result, we proceeded to transcribe them (which is in itself an interpretative practice, Riessman, 1993), and then we listened to and read them many times. Very careful reading and listening can play a significant role in examining the findings.

Labelling of respondent and data coding and ethical issues

Robson (2000) makes the point that sometimes guaranteeing confidentiality helps the researcher to elicit valid data. Though Patton (2002) agrees with Robson's opinion, he also points out the issues of reliability. He emphasises that even when keeping confidentiality, data collected can be reliable, but the critics question the reliability on the grounds that there are almost no chances to verify the data collected.

It was important (Bell, 1993) to build up a small amount of trust with respondents before they allowed me to interview them. So we emailed assuring them that confidentiality would be maintained forever, especially when the research would be presented in a paper; and we also tried to make our actual aims clearer.

The identity of each of the respondents has been withheld to respect confidentiality and ethical issues, but brief descriptions have been provided. In consideration of confidentiality, we labelled and coded the respondents (Bell, 1993). So in the findings and discussion section of this paper the 17 respondents will be referred to as A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P and Q. The further information about the respondents is as follows.

Respondent A is highly skilled emigrant working in one of the biggest hospitals in the UK. Born and brought up in India, he gained his degree in medicine in South India. He then worked in India for four years before receiving a government scholarship to complete further study in the

UK. Dr. A and his wife (also a medical professional) travelled to the UK in 1999 in order for him to pursue this higher study. After its completion, he was offered employment within the British National Health Service (NHS). He and his family now live in the UK and plan to settle permanently. Dr A has two children, both of whom are studying at a private UK school. Dr. A's father, once a senior government official in India, still lives in India. Although his parents are retired, they do not require financial support from Dr. A.

Respondent B lives in the UK, a student in a 'college' in London. Although officially a student, his main intention is to work. His 'student' visa status is maintained as this is the only way he can live and work in the UK. Grown up in a village in Bangladesh and the second of five children, his father ran a small business. Mr. B's UK wages are the main source of income for the family in Bangladesh. He works in an Indian restaurant and lives in a shared room above the restaurant with two of his colleagues. His plan is to marry a British Bangladeshi so that he can settle in the UK. Mr B has completed and passed his bachelor degree from a Bangladeshi college located in an urban area. However, he does not need a degree to carry out his job of work.

It is worth mentioning here that, in preparing answers for this paper, only the cost of education required to be proficient in any particular job will be considered as the total educational expenditure invested to educate each of the respondents is calculated.

Respondent C is an engineer, graduated from what is considered to be the finest engineering institute in India, the Indian Institute of Technology (IIT) in Bombay. He has worked for the Microsoft Corporation for the last three years, travelling to the USA to take up a post with Microsoft after graduating from the IIT. His father is an officer in the Indian army, his mother a medical professional. Mr. C is married to a USA citizen and his parents are financially comfortable.

Respondent D has lived in the USA for fifteen years. He preferred not to reveal his country of origin. A taxi driver, he lives in New York with his family, three daughters and one son, all of whom attend a public school. Mr. D's wife does not work. His parents still live in his country of origin. Before arriving in the USA through a diversification visa (DV) programme, he worked as an office administrator. He holds a masters degree; however, his job needs only a secondary school certificate. It is worth noting that, in order to qualify for DV lottery, the candidate must have at least a higher secondary school certificate.

Respondent E is a Bangladeshi currently living in Malaysia. After graduating from the University of Dhaka, he remained and taught at the University for a few years before receiving a commonwealth scholarship, travelling to the UK to study for a PhD. After completion of the PhD he was offered employment with a Malaysian university, where he now lives with his family. His wife, a doctor,

works in a hospital in Malaysia and his children attend a private school. All of Mr. E's brothers and sisters have settled in various developed countries as highly skilled emigrants. Their parents lead a nomadic existence, travelling between the countries to stay with their children live, although they continue to use Bangladesh as their permanent address.

Respondent F is a Malaysian factory worker. He has lived in Malaysia for ten years and been married for five. His wife, two children and parents live in Bangladesh. After completing eight years of schooling in a very remote Bangladeshi village, he worked in a garment factory in Dhaka before travelling to Malaysia in December 1995 to seek employment. Since that time he has worked in several different factories in Kuala Lumpur, Malaysia.

Respondent G works as a doctor in a Dubai hospital. She gained her medical degree in Bangladesh. Before travelling to the UK in 1994 for further education, she worked in a hospital in Dhaka, Bangladesh. She has lived in Dubai since 2001 with her husband and two children. Her mother lives in Dhaka. Dr G has lost her father in 2004 and her mother needs some financial support. Dr. G's husband runs a business in Dubai and her children attend private educational institutes, also in Dubai.

Respondent H is a diploma engineer who graduated from a Dhaka polytechnic institute in 1988. Prior to emigrating to Dubai for work, he worked for a private organisation. His wife, three children and parents live in a district town in Bangladesh. Mr. H has three sisters and five brothers, all living in Bangladesh.

Respondents A, C, E and G are considered as belonging to the *highly skilled* group of emigrant and, as such, their migration is treated as part of the 'brain drain'. On the other hand, however, respondents B, D, F, and H are considered as semi/unskilled emigrants and their migration is considered as a 'physical drain'.

We were also able to interview a legislator working within the Bangladeshi education sector, labelled I. In addition, an informal conversation was held with a policy maker working with the Ministry of Labour and Employment, India, based in Mumbai. She is labelled J.K is classified as a British Asian, born and raised in the UK. Her parents arrived from Bangladesh in 1972, her father once working in one of Nottingham's Indian restaurants. K has been working with a multinational company.

L is also a British Asian, his parents travelling from Bangladesh in the early 1970s. L's father used to run an Indian restaurant in Haverfordwest, Wales. L used to help his father in the restaurant; now he runs his father's business.

M is a US Asian citizen. His parents left Bangladesh in 1982 and studied in the USA. M's father has been working as a faculty member of an US university. M runs a business at Queens, New York.

N is a British Asian, raised in the UK. His parents came from Calcutta, India. His father studied in the UK and took employment as a medical professional. N is a solicitor.

O is an engineer who once worked with a government agency in Bangladesh. He lives in Dhanmondi, Dhaka. His son remained in Australia as a highly skilled emigrant after completion of his further education at the University of Melbourne.

P is a doctor who once worked in a Bangladeshi hospital. After retirement from the hospital she moved to Uttara, Dhaka, where she runs a private clinic. Her daughter studied in the USA where she now lives with her husband, an engineer in the US government.

Q is the mother of non-skilled emigrant from Bangladesh, and a housewife. Q's son lives in Qatar and works with an engineering construction company as semi-skilled labour.

LIMITATIONS OF THE RESEARCH

Financial constraint has been the main limitation of this piece of personal research, meaning that it was not possible to conduct a wider research. The constrained circumstances have meant that we could conduct few interviews, and mainly by telephone. We were, therefore, unable to observe the physical appearance of the respondents and this was unfortunate, as the physical appearance of a respondent can occasionally guide the researcher in the formulation of his questions (Bell, 1999). In addition, there was occasionally a poor connection during some of the long distance telephone calls, making it hard to hear the interviewees.

As an individual researcher with no connection to local and international funders, it was not possible to gain their full confidence. Within the remit of this individual research, we were unable to collect some necessary data and documentation from the British Council, US embassy USIS, the Indian High commission and some other foreign missions required to thoroughly examine some of the issues. Support was gained to some extent from a few of the private and public organisations: UGC, the Ministry of Labour and Employment, and the Ministry of Education in India and in Bangladesh.

However, a significant amount of data was collected, and selection of data for analysis and presentation created a problem (Patton, 2002). Avoiding personal 'biasness and subjectivity' (Cohen et al., 2002: 184) in relation to what should or should not be presented in the thesis was difficult. However, the data finally selected is, we believe, representative of what we found, heard and noted.

In conclusion, we do not claim that this study is a postulate for ever but could be a model for further studies. We also argue that the developing third world could benefit from the findings, discussion and suggestions of this study.

FINDINGS AND DISCUSSION

Proposition for migrating from the third world

It has been noted that many semi and unskilled people

travel overseas to work because of the lack of job opportunities in their own country. According to B:

"In order to find a job, I had applied for at least 500 vacancies; unfortunately I was unable to get one. As you know, job applications in Bangladesh cost money, and I invested a good amount of money in order to apply for a job. I was really frustrated, and then I decided to go abroad. Fortunately, I was issued with a student visa in 2001. However, a significant number of my friends are also trying to travel abroad. I know that many of my friends have lost a lot of money as they have been cheated by the broker of a manpower business. However, they keep trying to travel overseas as there are almost no jobs in Bangladesh for those of us who are not highly skilled."

The opinion of H differs from B in a number of ways. He found it difficult to manage his family on his income while he remained in Bangladesh.

"After the completion of my diploma degree, I used to work with a private organisation. I was poorly paid, and it was very hard for me to survive. That led me to live abroad. Living abroad without my family is so hard and sorrowful however, thanks to Allah, at least at the end of every month I can send a good amount of money home that makes my family survive more smoothly, though not luxuriously. For me, to see a smile on the face of my family is more important. At the end of day, when I think that my children, wife and parents are happy, I forget my hard life aboard."

D was not living in such miserable conditions in Bangladesh. However, while he fortunately received a DV lottery, he planned to settle in USA as he and his family considered that living and working in the USA would not only provide the potential to earn more money, but would also be beneficial for their children's prospects.

F provides another significant reason to travel overseas to work. In his view:

"Working in a garment factory as a labourer in Bangladesh, I couldn't manage to provide food for my family once a day. So I had to travel overseas. I sold the little property of my father in order to travel in Malaysia. Living abroad is so hard. In order to earn every single penny, I have to work hard. I try to save as much as I can. I will work for a few more years then I will return home. This is why I am now trying to save some funds that will help me to manage my family after my return."

Q states a very important issue:

Every parent deserves to have the company of their children and wife zealously love to receive the escort of husband and without having father's affection the children are like orphans, however, so you can think that while family members allow to live their guardian away from them, they have no alternative. If there is any scope, we could survive; we would no longer permit my son to live in overseas.

Reviewing the statements made by B, F, H and Q, it may be concluded that the limited scope for a reasonable job in their country of origin forced them to work overseas. However, even though there is very little scope for work, the semi/unskilled group are very poorly paid. The small wage they receive is insufficient even for a hand-to-mouth existence. Although the respondents do not like the emigrant's life at all, they feel they have no alternative and that this is the only way they can help their family survive.

In conclusion, we note that while Alam and Rahamn (2008), Agrawal et al (2008) and Barro and Lee (2001) assert that political instability is key reason for brain drain, but the fact of unemployment and low paid employment are main reasons for non-highly skilled emigrants.

The following statements, provided by the highly skilled emigrants, confirm that they had been enjoying a reasonable standard of life in their countries of origin. However, they have settled overseas in order to secure a better position for themselves and for their next generation.

According to A:

"While I was working in India, I used to receive at least 200 salute a day. Life was really enjoyable and charming. I also received a good salary package. However, there are also significant reasons not to work in India. There are number of problems, especially the political crisis in southern Asia. A country where a political crisis always results in unrest and fighting between the rival groups is not safe and I cannot allow my children to live a dangerous situation while I am able to provide something better. If I lived in India, I would always feel tension for my family as they could be killed or hijacked at any time. This frustrating situation also hammers the job performance of an individual and does not let him carry out his job properly. Due to some unavoidable situations, I was not able to help underprivileged groups. I can work for privileged groups. My job also destroyed the rights of poorer people. Now, even I cannot help the poorer people in India, but my work does not destroy their rights, so I am happy now. Moreover, the prospects of my children are more important to me, so living in the UK is happier, safer and peaceful for me.

The following opinion of C is clear and straightforward enough to understand his thinking:

"While I have the opportunity to work with the best company in the world, there is no point in wasting my time in India where the working atmosphere is dreadful. Moreover, there is not a lot of scope for career promotion in India. I do not want to waste my brain and time working in atmosphere where the scope of research activity is almost zero. I have worked hard to gain a good diploma and so I deserve the good life that can only be provided by the USA lifestyle. I can also work with top-ranking professionals in the USA, but if I worked in India, I would just meet the challenge of national level.

E also emphasises the number logistics. He states that a poor working atmosphere and poorly paid salary packages is what mainly persuades individuals to work overseas. However, his main argument is that, in order to achieve an international standard within one's career objectives, the third world is not suitable for scholars.

G places a heavy emphasis on money matters in order to justify her reasons for migration. According to G:

"When I worked in Dhaka, I was poorly paid. The salary package I received was not sufficient to live life to a good standard. I could earn more money through private practice, but private practice is hard work, and achieving success through private practice takes time. Moreover, as I was in a full-time job, private practice was unethical, and so I decided to work abroad."

Both O and P say that it is very hard to pass through their later years of life without seeing the children regularly. However, they also say that parents want nothing in exchange for their sacrifices except the lasting happiness of their children. So if the children are happy living aboard, the parents should feel glad. P explains how he feels:

"When I hear that my children are doing very well at an international level, I forget every single sorrow of life. I just feel proud."

In conclusion we note that the statements of A, C, E, G, O, and P testify the similar findings noted by Faini (2007); Richard (2005); Chellaraj et al. (2005); Schiff (2005) and Ozden (2005) that, not only because of poorly paid salary packages and a weak work atmosphere at home, but also in order to secure a better standard of life, improve career objectives and to ensure good prospects for their children, members of the highly skilled group make the decision to settle in developed countries.

Advantages and disadvantages of the 'brain drain'

Remittance

On one hand, a significant number of scholars such as

Marchal and Kegels (2003), Mora and Taylor (2006), Richard (2005), McKenzie (2005), and Yang and Martinez (2005) firmly advocate that highly skilled emigrants generate a higher income of foreign currency for the country of origin. However, they often miscalculate. In addition, they fail to ensure that the higher income in foreign currency is entirely generated by the semi/unskilled group. It is also important to note that highly skilled emigrants are the product of large amounts of public funds, therefore, it is commonly presumed that they will contribute more to the development of their original country. In contrast, it is found that the emigration of highly skilled manpower essentially provides personal benefits for the individual, rather than public benefits.

Scholars such as Chellaraj et al., (2005), Schiff (2005) and Ozden (2005) empirically prove that skilled individuals provide greater benefits for the countries to which they have migrated. They argue that, with the assistance of research conducted by and the professional engagement of skilled emigrants, the developed world is progressing outstandingly towards economical and social freedom. Faini (2007) recently found that skilled emigrants do not remit more. This research asserts the views of Faini (page 19 and 20).

Collaboration

A, C, E and G claim that highly skilled people shape a bridge between the developed world and the developing world. As stated by A:

“If you see today’s India, you will be surprised. A significant number of call centres and international IT business organisations have been established in India. This has been possible because many Indians have worked around the globe in reputable international IT organisations.”

However J’s view differs from that of A and it is important to note it:

“I acknowledge that Indian IT professionals work around the globe and, to some extent, help us to establish international IT business in India. However, the main reason is that the Indian government provides very good support in order for the international businesses to be established in India, especially within the IT sector. In addition, the IT professional is cheaper in India than in other countries, and this is what mainly persuades the international IT business organisations to establish their business in India. I also want to add one more issue; in some cases the skilled immigrants are harmful for India as they sell their consultancy services to the Indian government and business

organisations at a higher cost. Moreover, the wages they receive as a consultancy fee is tax free, as they often argue that they have to abide by the income tax rules of the country where they are currently working and, if they also have to pay tax to the Indian government, it will be double burden.

In conclusion, we note that there is a dearth of research to understand the impact of brain drain for the development business collaboration for home country. Hence, we recommend that further multi diversified wider researches need to be conducted to explore this issue.

Disadvantage

The disadvantages of ‘brain drain’ are manifold; however, we will attempt to discuss some of them briefly here:

To provide private benefit

According to J:

“I acknowledge that, as we cannot provide sufficient wages and a good working atmosphere here for highly skilled individuals that lead them to seek suitable positions in the developed world. However, we must bear in mind that highly skilled people consume most of the education budget. The money for this budget comes from the public funds, contributed through tax paid. Moreover, a portion of the budget is also provided by donor agencies as either aid or a loan. Since there is hardship, we usually take the funds from international organisations, such as UNESCO, IFM, and the World Bank, under any condition. It is also important to note that the remittances received from highly skilled emigrants essentially contribute to the private and family benefit of the individuals; the country gains somewhat less. It is shame that our skilled individuals don’t understand our situation and I must say that they are turncoats.”

Latter section will explore the reality of remittance showing that highly skilled group do not necessarily remit more, while non-highly skilled group remit much of income forcing them to live in a hardship at host country. Thus, the remittance contribution made by non-highly skilled provides better public benefit to home country (see page 20, 21).

Shortage of professionals

The third world is currently experiencing difficulty in the development of essential competent professionals for many different professions. In such circumstances, the migration of highly skilled manpower makes significant

progress in the third world even more restricted. It is frequently found that schools and universities in the third world suffer from a dearth of academic staff. Hospitals face not only a shortage of competent doctors and nurses but there are also shortages of medical professionals. In this context I observe that:

“In the name of high immigration, the developed world is collecting skilled, well-trained, and experienced individuals from the third world; so the third world cannot meet its own demands. Moreover, successful entrepreneurs migrate to the developed world through an ‘entrepreneurial migration’ scheme; this is even more dangerous as they migrate from the third world to the first with huge funding. This is because, according to the rules of the scheme, the entrepreneur who wishes to migrate has to deposit a large amount of funds”.

These findings are in the alignment with Dumont et al (2005), Faini (2007), Alam and Rahaman (2008) and Agrawal et al. (2008).

Investment made by taxpayer of home country

The following data sets out to determine the amount of public money invested in order to transform A, C, E and G into highly skilled individuals. It is important to note that the calculation has made by compiling data from various sources. In addition, we sought to ascertain where each of the respondents had received their primary, secondary and tertiary education as we interviewed them, Being from southern Asia and having experience in conducting education research assisted us in our calculation of the amount of public funding invested to make these individuals highly skilled.

The figures do not include any budgets invested by the parents or guardians of these individuals in any capacity.

The following data sets out to analyse the public funds invested in order to educate the individuals B, D, F, and H in a similar manner. However, this calculation does not include all of education received. This calculation will only consider the extent that education is required in order to carry out their jobs, as scholars like Richard (2003), Psacharopoulos and Patrions (2002), and Prithchett (1996) and Alam et al. (2009) believe that extra or unnecessary education received by individuals that is not required for completing the individual’s task merely increases the cost of investment in the education budget, as there is no rate of return for that said education.

In conclusion, it is clear that in order to produce highly skilled individuals, a country must invest large amounts of public money (Faini, 2007; Chellaraj et al., 2005; Schiff, 2005; Ozden 2005) (Table 1). However, P states that public funding is insufficient to develop the highly skilled individuals needed. She says:

“Apart from public funds, careful and expensive parental participation in the education of an individual plays important role in make the individual highly skilled. The children of the underprivileged cannot prove themselves as highly skilled in the rigid and competitive atmosphere.”

Reality of Remittance

Before focusing on this issue, it should be acknowledged that highly skilled individuals always have a higher salary potential, as empirically discovered by Psacharopoulos and Patrions (2002); Harmon and Walker (1999); Hartog et al. (1999) and Appleton (2000). Moreover, Tilak (2002) claims that data from virtually every society shows that a post-secondary education ensures a higher income and greater opportunities for graduates. Comparison between those who have attended college or university and those who have not reveals consistent benefits to the degree holders. In our opinion, the highly skilled individual receives a better salary package than the semi-skilled individual, while the semi-skilled individual has more salary potential than the unskilled. In contrast, Alam et al. (2009) expresses an interesting point:

“Those who seek to pursue higher education expect to benefit in both their professional and personal lives, and the areas in which they hope to gain will also differ greatly. Higher Education provision reflects this. Research repeatedly finds that primary and secondary education contributes to a higher rate of return for the nation overall, whilst higher education provides greater benefits for the individual.”

The purpose of the following discussion is not for any comparative study of the salary package received by skilled and semi/unskilled emigrants, nor will it reveal the ratio of salary packages received by the two groups. The data aims to illustrate the contribution made by highly skilled and semi/unskilled emigrants in order to create a higher income of foreign currency (Fani, 2007) (Tables 2 and 3).

It is interesting to note that the highly skilled emigrants do not send huge remittances. However, all of the respondents state that their family at home is financially comfortable, and that they do not necessarily need the financial support. However, they do occasionally send money home to donate to the people of their country of origin, even though they consider themselves to be part of economical and social development of the country to which they have emigrated. C makes a fundamental point:

“Although I was born and raised in India, now I am an American, and as an American I must contribute to the

Table 1. Public investment for producing highly skilled manpower.

Highly skilled Respondent Identifier	Total invested for primary education (£)	Total invested for secondary education (£)	Total invested for tertiary education and higher studies (£)	Total (£)
A	3000	5500	60000 plus salary paid while on study leave	68500 plus salary paid while on study leave
C	4500	7800	17000	29300
E	3700	6200	55000 plus salary paid while on study leave	64900 plus salary paid while on study leave
G	3000	4500	44000 plus salary paid while on study leave	51500 plus salary paid while on study leave

Table 2. Public investment for producing semi/unskilled manpower.

Semi/unskilled respondent identifier	Total money invested for primary education (£)	Total money invested for secondary education (£)	Total money invested for tertiary education plus higher studies	Total (£)
B	3700	6200	Nil	9900
D	2500	5500	Nil	8000
F	3700	3200	Nil	6900
H	3000	9000	n/a	12000

Table 3. Remittance forwarded by the highly skilled manpower to the home country.

Respondent identifier	Remittance forwarded during previous 12 months (£)
A	1500
C	- 35000
E	2200
G	4800
Number of respondents: 4	Total: - 26,500

Table 4. Remittance forwarded by the semi/unskilled manpower to the home country.

Respondent Identifier	Remittance forwarded during previous 12 months (£)
B	8000
D	1200
F	2000
H	5000
Total respondents: 4	Total: 16200

contribute to the economical and social development of the USA. Moreover, in order to lead a luxurious life and secure good prospects, I should not waste my money by sending it for unnecessary reasons to India.”

As an individual, C always tries to understand what is beneficial to him. However, C also should understand that he has a responsibility to provide a financial return to his country of origin, where he was educated with public funds. There is also a moral and ethical obligation to provide support to the country of birth as a citizen of India

((I and J). I and J also state that every citizen is a part of the country, so C’s comments cannot be considered as a civic comment (see Faini, 2007).

It is clear that semi/unskilled emigrants send comparatively more money home than the highly skilled group even though they receive smaller salaries (Table 4). The semi/unskilled group are better placed to send a larger remittance home, as they have no family in the country where they are working. They are also keen to accumulate savings, as savings will help them both gain financial stability and support their family in achieving a better standard of life. In this regard, B says:

“We are not living as the part of the society where we are working, and our family needs money from us. It is important that, at the end of the day, we have to return so we save money and will try to establish business in the home country.”

Children of semi/unskilled emigrants who are now living in the developed world also feel some level of responsibility to support the relatives of their parents in the country of origin, although they consider themselves as part of the country where they have been educated (L).

In contrast, children of the highly skilled group do not feel the same as the children of semi/unskilled emigrants as they know very little about the country from where their parents originated (M and N).

How emigrants, particularly the highly skilled group, can contribute more significantly to the development of their country of origin

Under the present circumstances to hire graduates from the third world or to provide highly skilled emigrants' status, developed countries are not concerned about contracts with the third world governments, and the third world government also has no misgivings. Therefore, in order to hire the graduates or to provide highly skilled emigrant status, an agreement is usually made between the graduate and the business organisation within the developed country where the graduate is hoping to provide a service. Once the graduate and the business organisation reach a mutually acceptable agreement, no intervention from the third world government is possible.

Therefore, the graduates try to gain as much as they can in personal benefits. A, E and G have an intention to contribute to the development of third world. E explores a means of contributing to the country of origin. According to E:

“When the third world employs a consultant from the first world, the hired consultant usually does not need to pay tax in the country where he or she provides services. If the income is exempt from taxation, then we are happy to remit this amount for the development of third world. However, it would be better if the first world could design a system whereby the exempted tax could be directly remitted from our employers to the concerned third world government.”

Some scholars propose that, as the developed countries enjoy the benefits of the third world's brain drain, thus, they should invest in the establishment of better education provision in the third world. This idea is not exempt from criticism: if individuals from the first world invest in education in the third world, for instance Bangladesh, they would affect the Bangladeshi education system in such a way that in the individuality and ethical

values of Bangladesh may be lost (Alam and Khalifa, 2009). Moreover, the philosophy of first world entrepreneurs may not necessarily be that of the third world's countries, or may conflict with national objectives. In addition, the threat of privatisation of education through franchise provision continues to exist.

In this regard, an example from China and Malaysia may be put forward. A considerable number of US, UK and Australian universities provide education in China and Malaysia, and the main purpose of these universities is to earn money. This situation is threatened as it has been illustrated by some scholars that the first world universities operating in China and Malaysia are providing a lower quality of education for Chinese and Malaysian students which is provided on the parent campus overseas. As a result, although the Chinese and Malaysian students receive international degrees from international providers, the acceptability of their qualification is less than that of Western graduates (Alam, 2008). It is worth noting that, because of 'diploma disease', educational standards across the entire world are a declining feature. It is also interesting to note that, following the introduction of the GATS agreement, higher education has been seen as a commodity that results the deterioration of quality education internationally (Alam, 2008).

SUGGESTIONS FOR IMPROVEMENT

Before concluding, it should be noted that people who have migrated with a body but not necessarily a brain contribute more to the development of their country of origin financially, even though the highly skilled group are more productive and their reward significantly higher. Moreover, in the developing world, the privileged group always take the cream while the underprivileged struggle with a hand-to-mouth existence, either because of inefficient taxation rules¹, corruption, or some other fault of existing systems.

¹ Some of the developed countries provide subsidy for their agriculture industry, while most of the developing worlds impose higher tax to their poor farmers compared to the richer industrialists. It is worth to note that privileged group also do not pay the right tax imposed to them since they have very diplomatic and corrupt connection with high officials and politicians. Moreover, farmers have to pay the 'land tax' whether they can make profit or lose. This tax is additional amount from the regular tax paid according to the 'income code'. In contrast, businessmen and service holders need to pay tax only after the earning of a certain amount of money. Due to flood and other natural disasters, farmers can not cultivate regularly; however, they still need to pay the 'land tax'. It is also added that service holders enjoy 'pension benefits' after the retirement whereas farmers have no chances to receive 'pension benefits'. This circumstances lead farmers to be de-motivated doing cultivation though still agriculture is the biggest sector for national income. In addition, we must note that in most of the developing countries, same tuitions fee is paid by both children of poor farmer and elite industrialist to pursue 'high quality education' from reputed public education institutes where access is easier for elite children since they always receive careful parental participation

Following suggestions are two kinds in nature. First kind of suggestions is provided to explore on how the developing world can work to improve the situation and the second is on how a better global collaboration can improve the situation better as there is no way; we can deny "brain drain" is an international issue.

Also, it may be hard to achieve and sustain a higher level of economic growth in the long run, as continual emigration will mean that the work force will always be relatively inexperienced. Furthermore, the standard of education and health may drop as more quality teachers and medical personnel emigrate, leading to a general decline in developing world economic welfare. To address these welfare losses, government needs to have both short and long term strategies in place. Labour shortages in critical and technical areas such as medical, education and other finance related disciplines should be addressed immediately.

Governments of developing countries could explore the possibility of hiring expatriates. Locals could under study these expatriates so that the developing would benefit in the long run. In addition, attractive remuneration packages could be provided to former residents to draw their services back into the country. Governments could also review immigration policies to allow dual citizenships. However, these are only temporary measures. Governments of home countries need to put in place various strategies to ensure that emigration is curbed. Some of these initiatives are:

- In order to ensure political stability, several contentious constitutional issues need to be resolved before the developing nation and the economy can move forward as most of the colonial countries experience colonisation by their ruling elites (Alam et al., 2009).
- It is important to maintain law and order situation. However, the recent increase in global tension, wars criminal activity could lead to a further loss in confidence in the relevant authorities ability to maintain law and order in developing world.
- Sincere efforts must be made to create a national identity that encompasses all citizens. This program will assist in nation building and reduce any racial and religious divides that separate the people and threaten stability.
- The government must continue to promote and practise accountability and transparency to foster better relationships between government and the public.
- Government should ensure industrial stability. It should emphasise that unions and employers need to work closely on issues such as wage setting, hiring workers

for the development of their education and career. Moreover, their parents maintain connection with high officials. It generates a question to think, why do underprivileged group always be victimized of lose? Is it because they are not intellectuals and legislators? In our opinion, they are suffering since they are not intellectually capable enough to calculate their lose; moreover, they do not have any voice in the legislation process.

and redundancy packages. The proposed revival of the Tripartite Forum is a positive move in this direction.

- There is a need to provide better education and health facilities at a lower cost. The education system needs to be restructured in order to cater for the changing needs of society and the economy, in terms of globalisation and information technology.
- Similarly, the health system must undergo continuous improvement so that it can provide a wide range of modern medical services.
- Look into providing competitive remuneration packages for highly skilled professionals to encourage them to remain in the country. Some organisations are already moving in this direction.
- Increase intakes of doctors and other critical professions at training institutions to build up developing world's human resource base.
- Provide other vocational training in arts, agriculture and sports related disciplines.
- This will provide young people with the talent to find better employment alternatives.
- Look into ways of providing better social security such as unemployment benefits and pension schemes.
- Provide incentives for first-home buyers as this will encourage young workers to buy homes in home country and thus remain in the country. Past experience shows that when people make large investments in the home country, they are likely to stay.
- Create more investment opportunities for local professionals as well as former residents. This will help increase investment levels in the economy and hence improve economic welfare.
- Promote the establishment of more universities /institutions in developing world.
- This will provide a wider range of tertiary education. With the provision of internet, the possibilities of having distance learning and interactive classes with some of the internationally well known universities can be explored. Government should also look into the possibility of introducing satellite presentations and seminars which are conducted by these universities.

Understandably it is impossible to stop the emigration process. However, the above solutions will help to curb the current high rate of emigration and in turn increase efficiency, promote investment and eventually raise economic growth further. As it is impossible to stop brain drain, the second level of suggestions that follow, advocate a need of a greater collaboration to ensure a better economic and social development for the developing world.

In order to address the situation, urgent steps need to be taken by donor agents. All major donor agencies especially under UN guidance need to jointly establish a commission to oversee the 'brain drain' policy. This should be designed to ensure that, before any agreement is made between labour seeking to emigrate and the overseas employer, the potential emigrant's country of origin should receive legal public benefit. Once the proposed

commission can ensure that the country that has funded production of the graduate will benefit from the country where graduate intends to work as skilled manpower, the donors may claim that they have fulfilled their role. Otherwise developing countries can claim that they are contributing some form of donation to the developed world.

Conclusion

In conclusion, until and unless the policymakers, legislators and governments of the third world's countries provide a decent and adequate working environment for their educated people, the educated community will continue to seek employment overseas and the brain drain will continue. However, without the use of the trained and skilled manpower within the undeveloped countries, the shortage of trained professionals to meet the requirements of home-based professions will also continue, and there will be little hope of development on that front.

REFERENCES

- Alam GM (2009). The Role of Science and Technology Education at Network Age Population for Sustainable Development of Bangladesh through Human Resource Advancement Sci. Res. Essays 4(11): 1260-1270.
- Alam GM (2008). Impact of the Private Universities on Bangladeshi Education System: an investigation on education policy. VDM: Germany.
- Alam GM, Khalifa MTB (2009). The Impact of Introducing a Business Marketing Approach to Education: A Study on Private HE in Bangladesh. Afr. J. Bus. Manage. 3(9): 463-474.
- Alam GM, Hoque KE, Khalifa MTB, Siraj SB, Ghani MF (2009). The role of agriculture education and training on agriculture economics and national development of Bangladesh. Afr. J. Agric. Res. 4(12): 1334-1350
- Alam GM, Khalifa MTB, Shahjamaal MM (2009). Return from education system in Bangladesh: an investigation on comparative flashback scenario. Afr. J. Bus. Manage. 3(10): 567-575.
- Alam GM, Rahaman M (2008). The impact of migration on development: A comparative study between skilled and semi/unskilled emigrants, J. Bus. Stud. 4: 117-131
- Agrawal A, Kapur D, McHale J (2008). Brain Drain or Brain Bank? The impact of skilled emigration on poor country innovation. National Bureau of Economic Research, Cambridge.
- Appleton S (2000). Education and Health at the Household Level in Sub-Saharan Africa. Working Paper 33, Centre for International Development, Harvard University.
- Bell J (1999). Doing Your Research Projects. Third Edition, Buckingham, Philadelphia : Open University Press.
- Barro RJ, Lee JW (2001). "International Data on Educational Attainment: Updates and Implications." Oxford Econ. Papers 53(3): 541-563.
- Bell J (1999). Doing your Research Projects (Third edition) Open University press, Buckingham. Philadelphia.
- Beine M, Docquier F, Rapoport H (2001). "Brain drain and economic growth: theory and evidence." J. Dev. Econ. 64(1): 275-289.
- Chellaraj G, Maskus K, Mattoo A (2005). Skilled Immigrants, Higher Education and US Innovation. In: Ozden, C. and Schiff, M. International Migration, Remittances and the Brain Drain Washington, D.C.: World Bank and Palgrave Macmillan.
- Cohen L, Manion L, Morrison K (2002). Research Methods in Education, Flamer: Rutledge.
- Cohen L, Manion L (1994). Research Methods in Education, Rutledge, London, New York.
- Commander, Simon, Mari Kangasniemi and L. Alan Winters (2004). "The Brain Drain: Curse or Boon? A Survey of the Literature," in Challenges to Globalization: Analyzing the Economics, Robert E. Baldwin and L. Alan Winters, eds., University of Chicago Press pp. 235-278.
- Docquier F, Lohest O, Marfouk A (2007). "Brain drain in developing countries." World Bank Economic Review 21(2); doi:10.1093/wber/lhm008.
- Dumont JC, Lematre G (2004). "Counting Immigrants and Expatriates in OECD Countries: A New Perspective." Social, Employment and Migration Working Papers 25. Paris: OECD Directorate for Employment, Labour, and Social Affairs.
- Dumont JC, Georges L (2005). "Counting Immigrants and Expatriates in OECD Countries: A New Perspective," OECD Social, Employment, and Migration Working Papers No. 25.
- Faini (2007). Remittances and the Brain Drain: Do More Skilled Migrants Remit More? World Bank Econ. Rev. 21(2).
- Harmon C, Walker I (1999). The Marginal and Average Returns to Schooling in the UK. Eur. Econ. Rev. 43: 879-887.
- Hartog J, Odink J, Smits J (1999). Private Return to Education in the Netherlands in Asplund, R. and Pereira, P.T. (Eds.) Returns to Human Capital in Europe. ETLA, The Research Institution of Finnish Economy, Helsinki.
- Hazen H, Alberts H (2006). Visitors or Immigrants? International Students in the United States , Population, Space and Place 12(201-216).
- House WJ (2001). Employment Planning, The Labour Market and the Nature and Impact of Skill Losses on the Economy, ILO Draft Report (unpublished).
- Kane E (1997). Seeing for yourself: Research Handbooks for Girls education in Africa published by World Bank, USA.
- Le CN (2004). "Socioeconomic Statistics and Demographics," <http://www.asiannation.org/demographics.shtml>, accessed 26 September 2005. Asian-Nation: The Landscape of Asian America.
- Lucas D, Amoateng A, Sabiti I (2006). International Migration and the Rainbow Nation Population, Space and place 12: 45-63.
- Mora J, Taylor EJ (2006). Determinants of Migration, Destination, and Sector Choice: Disentangling Individual, Household and Community Effects. World Bank report # 33988; Washington, DC: World Bank
- Marchal B, Kegels G (2003). Health Workforce Imbalances in Times of Globalization: Brain Drain or Professional Mobility, Int. J. Health Plan Manage. 18: S 89-S101
- Mckenzie DJ (2005). Beyond Remittances: the Effect of Migration on Mexican Households In: Ozden, C. and Schiff, M. International Migration, Remittances and the Brain Drain, Washington, D.C.: World Bank and Palgrave Macmillan.
- Ozden C (2005). Educated Migrants: Is There Brain Waste In Ozden, C. and Schiff, M. International Migration, Remittances and the Brain Drain, Washington, D.C.: World Bank and Palgrave Macmillan.
- Patton M (2002). Qualitative Research and Evaluation Methods. 3rd Edition. London: Sage Publication.
- Prithcett L (1996). Where Has All the Education Gone, Washington D.C: The World Bank.
- Psacharopoulos G, Patrinos AH (2002). Returns to Investment in Education: A Further Update. Policy research working paper, 2881, Latin America and the Caribbean Region, Education Sector Unit, The World Bank.
- Richard H (2003). International Migration, Remittance, and the Brain Drain, Washington D C: The World Bank.
- Richard H (2005). Remittances and Poverty, and Investment in Guatemala In Ozden, C. and Schiff, M. International Migration, Remittances and the Brain Drain, Washington, D.C.: World Bank and Palgrave Macmillan.
- Riessman CK (1993). *Narrative Analysis* published by Sage, London
- Robson C (2002). Real World Research: A Resource for Social Scientists and Practitioner Researchers published by Blackwell, Oxford, Cambridge.
- Schiff M (2005). Brain Gain: Claims About Its Size and Impact on Welfare and Growth are Greatly Exaggerated In Ozden, C. and

- Schiff, M. International Migration, Remittances and the Brain Drain, Washington, D.C.: World Bank and Palgrave Macmillan.
- Saxenian A (2005). "From Brain Drain to Brain Circulation: Transnational Communities and Regional Upgrading in India and China," Stud. Comp. Int. Dev. 20(2): 35-61.
- Solimano A (2002). "Globalizing Talent and Human Capital: Implications for Developing Countries." Paper presented at the Annual World Bank Conference on Development Economics for Europe, June 24–26, Oslo, Norway.
- Tilak BGJ (2002). Building Human Capital in East Asia: What Others Can Learn. The International Bank for Reconstruction and Development, Washington D.C : The World Bank.
- Yang D (2006). "International Migration, Remittances, and Household Investment: Evidence from Philippine Migrants' Exchange Rate Shocks," NBER Working Paper 12325.
- Yang D, Martinez C (2005). Remittances and Poverty in Migrants' Home Areas: Evidence from the Philippines In Ozden, C. and Schiff, M. International Migration, Remittances and the Brain Drain, Washington, D.C.: World Bank and Palgrave Macmillan.
- World Bank (2003). Global Development Finance 2003: Striving for Stability in Development Finance. Washington, D.C.
- World Bank (2005). World Development Indicators 2005. Washington, D.C.