

**EDUCATION, MIGRATION AND EARNINGS:
AN ANALYSIS OF THE EDUCATION AND EARNING PROFILES OF
INDIAN IMMIGRANTS IN THE UNITED STATES AND THE
RETURN MIGRANT PROFESSIONALS IN BANGALORE**

Dissertation submitted to the **Jawaharlal Nehru University** in
partial fulfillment of the requirements for
the award of the degree of

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CERTIFICATE

Certified that the dissertation entitled “**Education, Migration and Earnings: An Analysis of the Education and Earning Profiles of Indian Immigrants in the United States and the Return Migrant Professionals in Bangalore**” submitted by **Basanta Kumar Potnuru** is in partial fulfilment of eight credits out of a total requirement of twenty-four credits for the award of the degree of **Master of Philosophy** of this University. This dissertation has not been submitted for any other degree of this University and is his own work.

We recommend that this dissertation be placed before the examiners for evaluation.

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Chapter 1

Introduction

An emerging challenge to the nations in the 21st century is 'international migration'- that people move across the national borders. According to the World Migration Report 2001, at least 160 million people were living outside their country of origin in 2000, up from an estimated 120 million in 1990, the decade, which registered the highest number of migrants in history (Martin and Widgren, 2002). Though migration is as old as humans wandering in search of livelihood, but international migration is a relatively recent phenomenon. Migration involves the movement of both a factor of production and the owner of that factor, so that the source country loses its claim to the factor earnings. To the question what determines the size and composition of immigrant flow to any particular host country, there is a common understanding that no single theory exists to fully explain the phenomenon. In view of the determinants of migration, neo-classical economic theories emphasize the concept of utility maximization for individuals. Mobility is treated as human capital investment and migration is more likely if the benefits outweigh the costs (Borjas, 1989). Some studies are based on a supply-demand model and argue that the immigration of the third world professionals is related to job vacancies and competing opportunities in other host countries (Kanjapan, 1997). Though both the pull and push factors are responsible for migration, it is the pull factor that have attracted large number of migrants in the past. Whenever there was a demand for skilled people from the advanced nations, there witnessed exodus of talented minds from developing nations.

Most of the advanced nations invest huge sums of money on their borders to screen people, to choose whom to allow and whom not to. They welcome the skilled people on the borders and prevent the unskilled from entry. This is evident from the fact that the United States has rapidly increased the supply of temporary visas for skilled workers. Britain has rapidly expanded the availability of work permits for skilled migrants and pushed down the required level of skills. Australia decided to allow foreign students of Information and Communication Technology to apply for permanent residence on the basis of educational qualification alone. And many more countries are softening the rules that normally force foreign students to go home as soon as they graduate (The Economist, 2002).

On the other hand the challenge to the developing nations is how to stop its talented brains from crossing its border to the developed nations bringing severe losses to their economies. Contrary to popular belief that some countries send only unskilled labour, Lowell (2002) estimated that 12 percent of Mexico's population and 75 percent of Jamaica's with higher education is in the United States. It was found 30 percent of Mexican's with Ph.Ds are in the U.S. Such figures happen to be more striking because in poor countries only about 5 percent of the young tend to be in higher education. It is not only the skilled to greater proportion leaving, but are the top rankers. Tapas Majumdar (1983) writes that to produce five good engineers, the government has to put them and invest in a class of twenty. This leads to real losses to the nation when these top rankers migrate. The rest fifteen those who are left behind in the country are of the second standard, which the nation institutions employ. Although about 3 percent of Indian doctors emigrated in the 1980s, the proportion of All India Institute for Medical Sciences (AIIMS), the country's best medical school was 56 percent in 1956-80 and 49 percent in the 1990s (The Economist, 2002). Of more than 150,000 highly skilled people aged 20-64 from throughout the world were admitted in the U.S. during 1988-90 and slightly over half of them (52 percent) originated in from Asia, of them nearly 28 percent are Indians (Kanjapanan, 1997). Moreover, engineers, mathematicians and computer scientists are more likely to originate in India, apart from Taiwan. For the small number of natural scientists, India supplied the largest numbers followed by Taiwan (ibid). America educates one-third of all foreign students and roughly half of them with Ph.Ds are still in the United States after five years of their education has ended (Lowel, 2002). The proportion is higher even for doctorates in physical sciences or mathematics for those who stay on after their education. The high proportions are for the Indians, Chinese, and British students. An estimate shows about 23 percent of H1-B visa holders in February 2000 had previously held American Student Visas. Moreover, the loss of the skilled and educated may do more harm than their emigration in general, these particular talented people could create new jobs for others. Saxenian (1999) states, "By 1998, Chinese and Indian engineers were running one-quarter of the Silicon valley technology business. These companies collectively accounted for more than \$16.8 billion in sales and 58,282 jobs (and for 17 and 14 percent of the total sales and jobs respectively). Moreover, the immigrants' entrepreneurship has been accelerating". Besides, she adds these figures are

understated because the firms that were started by Chinese or Indians but hired non-Asian outsiders as CEOs are not counted.¹

Migration of the skilled people not only leads to income foregone of the sending country but also adds to the fiscal losses. Emigration of high income earning professionals leaves behind a few to pay taxes, who have to bear larger burden of taxes to take care of the older people, there by adding to the loss of public money spent on the education and health of the migrants. In a recent study on the fiscal impact of India's brain drain, Desai et. al. (2002) point out that 1 million Indians in US accounted for a mere 0.1 percent of India's vast population but their earnings equalled 10 percent of India's national income.

It was thought that remittances sent by the migrants would stimulate development in the sending country. One study on Mexico suggests that each dollar of remittance generates three dollars of spending power through its remittance multiplier. A study by Benerjee et. al. (2002) found that the impact of migration across Kerala has shown a greater flow of remittances, which in turn led to improved living standards and consumption levels among the households of the migrant family. These remittances at the macro level however are very limited compared to the total emigration from the country. The skilled migrants generally emigrate with their families and more likely to settle down abroad or stay for longer years. One extra year of residency abroad of the migrant reduces 3 percent of his remittances (Brussels Round Table, 2001). Those who change citizenship, remittances drop drastically. According to the U.S. census survey 4 out of the 10 Indian immigrants acquire U.S. citizenship and settle down permanently. Moreover, the immigration laws of the family re-unification came in the advantage of the migrants to call back their skilled spouse and other relatives for immigration, further constraining the flow of remittances. Kerala has received large amount of remittances because a majority of its migrants are either unskilled or semi skilled. Unskilled migrants stay for short period of time and are more likely of returning back.

¹ After the wave of migration of IT personnel from India, the latest turn is of teachers. Newspapers show the advertisements at regular intervals for the posts of teachers at large for the countries like USA, UK, New Zealand, Australia, etc. An organization called "Recruiting New Teachers (RNT)" says that over the next 10 years the USA would need to hire two million teachers because all of their teachers would retire during this period. These countries mainly prefer Indian teachers because Indians have better fluency in English with quality higher education (HT, 16 Feb., 2003).

Another hope of benefits for the sending countries is the return migration of its emigrated professionals. It is assumed that emigrants returning home bring back the added human capital with them. A study by Barrett (2001) of Dublin's Economic and Social Research institute looked at returning immigrants to Ireland. He found that male graduates who lived abroad for at least six months after getting their degrees, and who went abroad for work earned 15 percent more on average than other Irish men with similar qualifications when they came home. In a recent survey by Saxenian (2002), for the Public Policy Institute of California found that of more than 1,500 first generation Indian and Chinese migrants surveyed, 50 percent go back at least once a year to their home country on business, and 5 percent return at least five times a year. What is striking is the estimate that 74 percent of the Indians and 53 percent Chinese in the Silicon Valley hoped to start business back home. Such findings suggest that the source countries should try hard to entice back the lost brains with added human and financial capital. China has already started the process by organizing successful job fairs in the Silicon Valley, wooing back the high-tech migrants to start companies in Shanghai's Pudong district. Even if the emigrants not returning for the good, still there are ways to harness their skills by establishing contacts and creating networks of experts abroad through the internet. Once these contacts and networks are established, opportunities will be opened for the emigrants to fly back as well to the source country to accommodate them for the best use of the nation's development. South Korea is another example of establishing such networks and has been successful in getting its nationals back home.

Variegated Perceptions of the Brain Drain

The debate on 'brain drain' has seen different phases with different perceptions. The pot started boiling for the first time when the British high skilled migrants left for the United States in the early 1960s and the developing country migrants filled the void in Britain in the late 1960s. In India the hue & cry started in the mid 1960's when a few of its talented professionals left the country for greener pastures after independence. There are estimates of the losses of human capital migrated to U.S. by the present value of the migrant's earnings compared to the inflow of the foreign aid. This resulted in raising the political slogans for a collective world action to remedy the resultant injustice (Grubel, 1987). Since then the brain drain from India has multiplied. Surprisingly the debate abated and the problem of 'brain drain' was not a subject of worry for the

developing nations during 1970s and 1980s. The reasons are many and they differ from country to country. For India one reason pointed out by Khadria (1999) was a perception that the remittances generated from the emigrants resulted in substantial increase in foreign exchange reserves in 1970s, and the stabilization of emigrant flow from India in the mid 1970s led to a declining trend in emigration under the 'occupational preference' visas. But this, according to him, has been only an illusion as there is evidence that the immigrants from India to U.S. continued to be highly skilled in the 1970 and 1980s.

Former Primeminister late Rajiv Gandhi termed India's brain drain as 'brain bank' abroad and opined they would be useful to India at the appropriate time when needed (see Sukhatme, 1994). After that with increasing unemployment in the country the term brain drain is seen as 'brain export' and 'brain overflow' (Khadria, 1999). Recently, migration of skilled personnel frequently from one country to another country and their frequent visits to the country of origin is a new and developed phenomenon called the 'brain circulation'. According to this new concept, migration of the professionals is not necessarily a drain to the sending country but rather an instrument for the to and fro transformation of knowledge if the migrants frequently visited or returned to the home country from many other destinations.

Policies to Remedy Brain Drain

Controlling migration is a challenge for both the developing and developed nations. It is obvious in the era of globalisation that governments cannot stop people moving across the borders. But, there has been consensus for a meaningful policy to reap the potential gains of the human migration internationally. There have been a myriad of immigration policies in the advanced nations to attract the migrants who are more likely to bring them economic and social gains. But there is no constructive emigration policies followed by the developing nations to stop their talents from crossing their borders. However, there have been some policies temporarily for some time. Khadria (2003) enlists them into four broad types, such as Restrictive, Compensatory, Restorative, and Developmental policies. India has experimented with all the four at different points of time. Under the restrictive policy some measures were taken to stop the medicos from crossing the border. Similarly, under compensatory mechanism, some incentives were offered to NRIs in the form of higher rates of interests and lower rates of taxes to send

remittances and invest in bank deposits etc. Restorative policies aimed at encouraging return migration either permanently or temporarily. The schemes under this are Pool Officers scheme for permanent returnees and TOKTEN-INRIST (Transfer of Knowledge and Technology through Expatriate Nationals-Interface for Non-Resident Indian Scientists and Technologists). The Council for Scientific and Industrial Research (CSIR) of Government of India sponsors both these schemes (the latter in collaboration with UNDP). However, both the schemes failed to make their mark because of the poor offers and poor implementation respectively (ibid).

Recently, there was an offer by the Government of India called PIO (Persons of Indian Origin) card scheme for those who had obtained foreign citizenship by giving up their Indian citizenships, to facilitate establishing of ties with India. There was a growing demand from the PIOs for granting them the dual citizenship so that they can keep contacts with India with ease. Though the demand was turned down initially, during the recent celebrations of "*Pravasi Bharatiya Divas*" (Overseas Indians Day) on 9th January 2003 in New Delhi, the granting the dual citizenship to the persons of Indian origin in some countries was announced. The countries are USA, UK, Canada, Australia, New Zealand, France, Germany etc., and there is also a provision for the scheme be extended to the PIOs in some other nations as well. Although one has to wait and watch for the fallout of this, the scheme reflects the Government's inclinations towards forming policies that would promote return or circulatory migration.

From the above discussion, one gets the impression that the developing countries have no constructive policy to stop the brain drain despite the severe losses faced by them. In the present era of globalisation, no country can maximize gains by stopping migration of its people, nor can it do so without discounting individual freedom. However, there is a consensus that there must be some suitable policy to regulate and maintain the optimum level of migration, beyond which the returns may turn negative. To know this optimum level, one must understand the magnitude and pace of brain migration that is taking place and the consequent losses. It is with this perspective that an attempt is also made in this study to examine and analyse the motivational factors behind onward as well as return migration, leading to highlighting of some concerns for policy.

Scheme of the Study

The study follows the following schemata of chapterisation:

Chapter 1: Introduction

Chapter 2: Education, Earnings and Migration: Some Analytical Interrelations

Chapter 3: Education and Earning Profiles of the Indians, Other foreign-born and Native Americans in the United States: A comparative Analysis.

Chapter 4: Socio-Economic Profiles and the Motivational Factors of Migrants: A Case Study of the Returnee Professionals in Bangalore.

Chapter 5: Summary of the findings and Concluding Remarks

Brief Summary of the Chapters

Chapter 2 discusses some analytical interrelations of the terms 'Education', 'Earnings' and 'Migration', which are the key terms in the study. The chapter begins with the proposition that education and migration are positively correlated. An educated person is more likely to migrate than the less educated person because he can access information more efficiently on job search, and earns higher returns after migration than the less educated. On the other hand a less educated person is more likely to remain bound to his homeland and less likely to move when the distance and cost of migration are high. Migration is a form of human capital investment that results in benefits in the form of higher earnings to the migrant. The review of literature established that immigrants in general earn less than the native-born workers initially, but in course of time with higher assimilation rates they earn more than the native-born workers. In contrast, more recent findings state that the recent arrivals (or immigrants) earn much less than the native-born workers at their entry and thus may not overtake the native-born workers even during their working lifetime.

Chapter 3 examines the education and earning profiles of the 'Indians' in the U.S. (defined as 'Asian Indians' in the U.S. Census) compared to the other foreign-born and native-Americans in the United States as of 2001, and also looks into the quality Indian human capital that entered the U.S. in the nineties. Indians are found to be on the younger side in the working age group, much more highly educated and earning much higher than the other foreign-born and native-born workers. It is also found that there has been a trend of increase quality of human capital of Indian immigrants of the nineties.

This chapter also finds that the “recent” immigrants (in general from all countries) to US possess more education and earn more than the earlier immigrant cohorts, but they earn much lower than the natives compared to the earlier immigrants. This is because the rate in the increase in the natives’ educational attainments and earnings are much higher than the rate of increase in the immigrants’ educational attainments and earnings. This is however, is not true with the “recent” Indian-born immigrants and natives. The recent Indian-born immigrants earn at lower differences with the native-born compared to the differences of the earlier Indian-born immigrants and natives. This is because the recent Indian-born immigrants experienced higher rate of increase in educational attainments and earnings compared to the natives. The chapter at the outset pinpoints the differences in the demographic, age, education and earning profiles among the immigrants of the different continents in U.S. in general, and the immigrants of the Asian countries in the U.S. in particular. It establishes a point that assessments on potentialities of any particular country immigrant group from their continent averages without looking into their own group characteristics will be a wrong step.

Chapter 4 is a primary case study of the return migrant (mostly IT) professionals in the city of Bangalore. The case study aimed at to look into the socio-economic profiles (age, education, earnings and some other economic aspects like investment, capital etc.), and the motivating factors behind their migration. The findings are used to compare the earnings of Asian Indians in U.S., and their potential earnings in the Indian labour market. The exercise reveals that a respondent return migrant earns at an average of Rs. 0.55 million in the Indian labour market, which is one-fifth of the income earned abroad in nominal terms. Compared to the Asian Indians’ average earnings in the U.S., these returnees earned much higher income abroad having much higher educational attainments. The returnee respondents’ earnings abroad are 123 percent more than the U.S. native-born workers. It was found that thirty-seven percent of the Asian Indians in U.S. are earning more than 100 percent (some even more than 200 percent) of the Native Americans’ income. Thus, this estimates the earning potential of these thirty-seven percent Asian Indians will be roughly at least Rs. 0.5 million per head in the Indian labour market if they return back.

On the motivational aspects of out-migration it was found that the migrants are lured by the work experience in a better working conditions abroad that they thought would be valued highly in India when they came back followed by better income prospects and quality of life abroad. The family has been the most important factor for their return. Other important motivational factors were, recognition of India as a major IT power in the world, and growing employment opportunities in the concerned sector in India. The factors responsible for being Bangalore as their obvious choice after return are: - Bangalore has the abundant employment opportunities, better infrastructures compared to other major cities in India, availability of experts in the concerned sector (IT), better remuneration packages, satisfactory health facilities, socio-cultural and language reasons, and the emerging State Government support for the IT sector respectively.

Methodology

The study uses data and information from both the primary and secondary sources. The chief primary source of data for the study is the U.S. Census Bureau, its population reports and other population documents, accessed through Internet. Besides, other secondary data also obtained from books, journals and research papers etc. The primary survey of the return migrant Indian professionals in Bangalore was also undertaken because there had been no statistics available about return migrants in India. For this a two way process was adopted. As a first step a few professionals were approached through informal contacts by e-mail and telephone, and then, in a manner of *snowball collection*, others were identified. At the second stage the willing respondents were interviewed in the month of December 2002. While approaching or contacting the respondent return migrants in Bangalore, however, care was taken to make the sample more representative by covering diverse types of software companies. Keeping the objectives in mind, an interview schedule was prepared to interview the willing respondents personally. The interview was also tape-recorded that helped for in-depth analysis later. Further details about the sample are discussed in chapter IV.

Chapter 2

Education, Earnings and Migration: Some Analytical Interrelations

When we discuss the educational and earning profiles of the migrants, by directly establishing the relationship between education and earnings, a fundamental question one must ask before digging into the serious research on the subject is whether any such correlation exists, and if yes, to what extent? This chapter provides the answers to these questions reviewing the existing literature. The chapter has been divided into three sections. The first section discusses the relationship between education and earnings, the second deals with education and migration, and the third discusses about migration and earnings.

2.1 Education and Earnings

It starts with the well-established fact that an educated person is more likely to earn more than a less educated or an illiterate person, irrespective of the type of economic system exists, and the stage of economic development operates. It was Shultz (1961) and Becker (1962), who developed the 'Human capital' Concept and treated 'education' and 'training' as an investment, the fruits of which is reaped in the form of higher earnings later for both the individual and the nation. Education is both the consumption as well as an investment activity and produces both direct and indirect benefits.¹ As a direct-monetary benefit from education the individual receives income, it was believed that education develops the skills and thus ensures higher productivity². According to the marginal productivity theory of income determination under perfect competition, a person is paid according to his marginal productivity. If education varies a person's productivity by varying his skills, then income can be used to measure the effect of education on skills.

As one of the general agreement Blaug (1972) sums up that, "we begin by noting a remarkable fact of life: between any two groups of individuals of the same age and sex,

¹ Consumption interpretation of education is just the reverse of what Education is seen as an investment for more income in future. It argues more schooling does not result in more income, but rather more income results in more schooling. Education as a consumption good is seen as one that for self-satisfaction or for social status. See Carnoy et al, (1982).

² For example higher education is capable of imparting a person, some general facts, the use of specific tools effective decision-making and general problem solving techniques, (see Schultz, 1961; Becker, 1971).

the one with more education will have higher average earnings than the one with less, even if the two groups are employed in the same occupational category in the same industry. The universality of this positive association between education and earnings is one of the most striking findings of modern social science. It is indeed one of the few safe generalisations that one can make about labour markets in all countries, whether capitalist or communist”, (p-54).

The above observation by Blaug establishes a positive correlation between education and earnings holding age and sex constant. The age and earning profile of different people with different levels of education has illuminated the discussion on education and earnings and strengthened the correlation between education and earnings. Blaug (1970) calculated the age earning profile for the US citizens from the 1949 US Census, Woodhal (1970) calculated the age earning profiles for a sample of workers in India in 1960. Both of their findings depict the following three general characteristics of education-age-earning profile.

- (a) The age earning profile of all workers whether educated or illiterate increases with age, reaches at maximum somewhere in his/her mid career and then it declines.
- (b) The higher the level of educational attainment higher will be the rate of increase in earnings and steeper is the earning curve. In most cases workers with higher level of educational degree, starts their earnings later than the workers with lower level of educational degree, but the initial earnings of a worker with higher level of education is higher than the one with less education.
- (c) Similarly, the workers with higher levels of educational attainment attain their maximum earning capacity later than that of the worker with less education and their level of earnings at retirement is also higher, compared to the less educated.

But, as a major setback to the approach of human capital theory, two dominant criticisms came out. One points out the importance of ability, intelligence, inherited characteristics and pure luck in determining one's earnings. The second criticism is that

education does not increase the productive capacity of a man but simply acts as a screening device to allow the educated persons for higher paid jobs. Most of the earlier studies of education and earning profiles are based on decennial censuses without holding ability and other personal traits constant. The critics point out that the importance of ability, primarily determined by the environment, intelligence is almost entirely inherited (Fagerlind, 1987), family background, other inherited characteristics and pure luck etc. They argued that the higher earnings of educated workers do not arise from their specific knowledge and skills acquired during their education but due to their 'superior natural ability' in them (Woodhal, 1987).

Education and Ability

Taubman and Wales (1974) using Wolfe-Smith (1956) data on Minnesota high school graduates of 1938 found that for a person with the same IQ as the average high school graduate, the extra earnings from vocational training are less than 7 percent; from attending college for less than two years, 18 percent; from attending college for more than two years but not graduating, 36 percent; from earning one degree, 47 percent for those in the first nine IQ tenths and 100 percent for those in the top tenth; and from earning two degrees, 58 percent for those in the first nine IQ tenth and 111 percent for those in the top tenth. Except for the people in the top IQ tenth, the percent increase in income falls as education grows. For those in the top IQ tenth, one college degree represents a huge 50 percent increase over not graduating. They found that mental ability adds to earnings but that education is a more important determinant than IQ. And high ability and high educational level interact strongly to produce very large income differences, ability effects income even for high school graduates.

After dividing the same data in to three highest paying group of professionals, semi-professionals and sales they found that the education coefficients are very small and statistically insignificant as long as ability is held constant. Ability however is statistically significant and quite large, with those in the top tenth earning 20 percent more than those in the fifth and sixth tenth and about 30 percent more than those in the bottom four tenths. For other occupations, which have a lower average wage and salary level, they found that neither education nor ability is a significant determination of

income. Becker (1964) concluded that an increase in ability has a negligible effect on the earnings of high school graduates and a 15 to 20 percent effect among college graduates.

More recently, Jones (2001) using the data from a panel survey of 200 manufacturing firms organised under the World Bank's Regional Programme for Enterprise Development (RPED) and collected during the summers 1992, 1993 and 1994 analysing for Ghanaian manufacturing, provide strong evidence that education is highly correlated with productivity. It was found that workers with tertiary education are more productive than those with secondary education, workers with secondary level of education are more productive than those of primary school education, and workers with primary education are more productive than those with no formal education. Further they show the evidence that these productive differentials correspond directly to workers' earnings differentials. Though these findings do not hold ability and other personal traits constant, it implies that education still reflects productivity even if it does not cause all of it.

However, there are exceptions that all workers with same level of schooling may not have the same level of productivity because differences exist in environment and technology. Dynamic environment enhances productive capacity of workers (Thomas et al., 1991). A change in technology demands skills to deal with new technology (Bartel and Lichtenbery, 1987; Rosenzweig, 1995). Rosenzweig (1995) suggests two channels through which education can enhance productivity; first, education may widen a workers access to different sources of information; and second, education may increase a workers ability to learn from past experience. Jones (2001) reveals that, a one-year increase in the average level of education increases 7 percent increase in labour productivity, and this rise in labour productivity is almost identical with rise in earnings with each additional year of schooling (i.e., 7.1 percent).

Thus, there appears positive correlation between education and earnings, but in order to estimate the net effect of education on earnings it is very much necessary to hold other factors such as ability, family background and luck etc constant. Taubman and Wales (1974) examined and listed the determinants of earnings wholly or partially responsible includes the following: -

1. Educational attainment
2. Quality of schools
3. Various types of mental ability
4. Physical health
5. Age on the job experience
6. Family background
7. Marital status
8. Non-pecuniary rewards
9. Sex and race

They added another four factors, which they did not examine but assumes, will affect the earnings of a person are listed below.

10. Personal traits such as motivation, drive and risk aversion
11. Religious preference
12. Mental health
13. Migration

The above list may also be extended to: -

14. Labour market differences
15. Demand and supply factors.

Education as a Screening Device

The reason why the screening hypothesis is important is to focus the attention whether education or other forms of investment in human capital influence productivity, and has served as remainder that education does for more than imparting knowledge and skills. It was argued by the 'queue theory'³ that education and training does not promote productivity, but productivity is an attribute of a job, which in turn is tied up with modern capital equipment. Thus, a person who is assigned the job would be given a formal/informal training to cope with the machine, which in turn helps to produce more. The employers with the feeling that a more educated person needs less of training on job reducing his cost of training, and therefore selects those who are a head in the queue. Thus, both the screening hypothesis and queue concept establishes the idea that education does not contribute directly to productivity, but helps the employer to chose people for jobs of higher productivity paying higher salaries and for lower productive

people for jobs of higher productivity paying higher salaries and for lower productive jobs lower salaries (Arrow, 1972 also see Carnoy et al, **give date**). Infact later it was recognised that education has the role to play more than as a screening device imparting skills, attitudes and values, which helps to determine workers productivity and employability. Mincer (1980, p-125) sums up the debate as, “The productivity and screening function of schooling are not mutually exclusive in a world of imperfect information, given that ability is an input in the education process. The controversy, if any, concerns the relative importance of the productivity and screening function of schooling in affecting earnings.”

Nonetheless, the employers prefer educated persons because, holding qualification indicates that the person posses certain abilities and attitudes, but these abilities and attitudes may not be necessarily imparted by education. However, it was increasingly recognised that education affects attitudes, motivation and other personal characteristics as well as providing knowledge and skills. This ensures the concept of investment in human capital is still valid, but it must be extended to include activities which effects personal attributes as well. Finally, it must be recognised that such activities increases workers productivity in complex ways.

There are several other reasons, which Taubman and Wales pointed out, may also be the possible causes for the changing impact of education on earnings over time. First, change in the supply and demand for different educated groups will change the relative wages. Second, inflation increases the earnings and the values of education coefficients. Third, there may be distributed effect of education on earning due to institutional factors associated with promotion policies or due to the possibility that skills of the highly educated benefit more from ageing. Lastlly, the effect of experience on earning may vary with education, may also vary with the change in investment on training at different levels of education. It is also noted by them that the last two reasons apply to profiles based on cross-section or time-series data and that the first two reasons apply only to time series data (Taubman and Wales, 1974).

2.2. Education and Migration

From the perspective of human capital approach both education and migration are the forms of investment in human capital. They both assure returns in future for the cost borne at present. Moreover, they both are complementary in nature, because investment in one enhances the returns to investment in the other.⁴ As regards the interrelation between education and migration there is no sufficient literature on international migration investigating the effects of education on migration. Some studies on internal migration indicated that education has a significant effect on migration. It seems innocuous applying the findings of internal migration to international migration, except only reminding the fact that the decision on international migration is a much cumbersome than the decision on internal migration because the former requires many administrative formalities such as passport, visa, immigration rules etc., whereas the later do not need any of them.⁵

Levy and Wadycki (1974) investigates the impact of education on inter-state migration in Vanezuela. The findings of the study show that increased education significantly increases the portability of an individual. It shows the mean value of the migration rate for migrants with no education is 0.99 percent, compared with 1.31 percent for those who attended primary school, and 1.76 percent for those who attended secondary school. There is significantly increased with increase in educational levels. The literature supports with several explanations for the greater mobility of an educated person. Thus, it comes out that more educated are more mobile because they have greater access to information and greater incentive to make additional investment in search for better opportunities and less attached to traditional surroundings. The more educated people got the advantage to process information efficiently (Shultz, T.W., 1975), and can compete for jobs in labour market that are suitable for them through trade, journals, professional meetings and the like (Schwartz,1973). Levy and Wadycki (1974) adds that

⁴ For a diagrammatic explanation, see Sabot R. H (1987).

⁵ For the discussion on the difference between internal migration and international migration see Kanjanapan (1997).

the educated generally face lower risks of unemployment, at least they can take up lower paid jobs available to them in case of their failure to get expected jobs immediately.⁶

In addition, education and migrations are also related in reverse direction. Some see migration as an opportunity to receive better education for themselves and for their children. Schultz, T.P. (1969), writes education may be one of the most important non-wage benefits of any location. Levy and Wadycki (1974) writes if this is so then higher levels of education at home would reduce migration and higher levels of education in the destination state would increase migration. Migration decreases with an increase in origin state wages, and increases with an increase in destination wage (Levy and Wadycki, 1974). Distance is not a significant deterrent for the more educated migrants since it is easier for them to finance their travel costs from their higher expected returns. But, for the less educated migrants distance serves as an important deterrent factor.

2.3. Migration and Earnings

The decision on migration hinges on several factors, the most important ones are the comparison of quality of life in the prospective destination country with that of the home country, immigration rules of the destination country, comparison of wage rates, individual freedom, social-ethnic-racial and cultural, economic progress of the nation, labour market situation, emigration rules of the source country, family and many more. All these reasons can be listed under three heads such as social, political and economic. Amongst the economic reasons, income is the most important determinant factor. Therefore, migration is treated as a human capital investment and more likely when the benefits outweigh the costs (Borjas, 1989).

The existing literature on the earnings of the immigrants discussing three substantive issues, first, how do immigrants perform in the host country? Second, what impact do immigrants have on the employment opportunities of natives? Third, Which

⁶ One such instance is cited by Biswas (2003). He narrates that a 39-year-old Indian journalist, failed to find a job to his qualification after migration to Australia a few months ago, and doing casual jobs like research assistance, proof reading etc., hoping for a good job to suit his qualification in future. Thus, for an illiterate person this may not be possible for him to stay any longer but to return back in case of his failure to find the job for him.

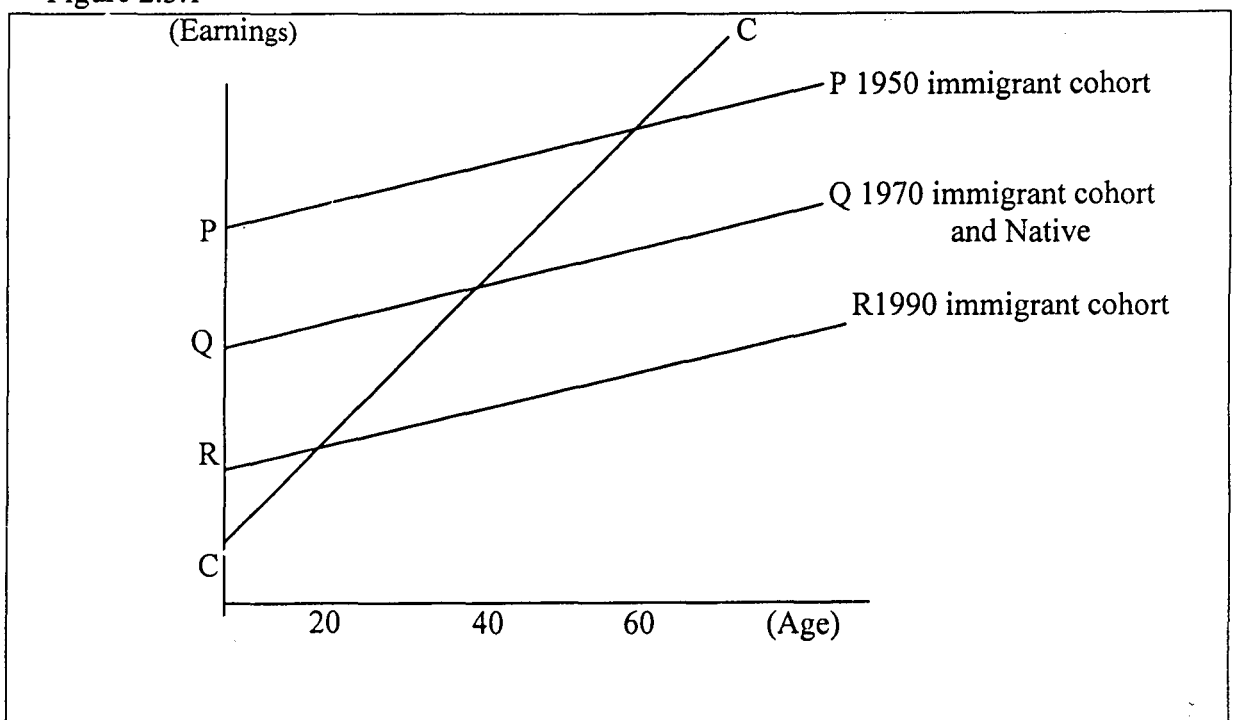
immigration policy most suits the host country's economy (e.g. see Chiswick, 1978; Borjas, 1985, 1994).

How do immigrants perform in the host country?

The trends in skill levels and earnings of immigrant population are used to discuss how the immigrants contribute the host country economy's skill endowment and productivity. Most of the immigration studies discuss the immigrants' performance in the host country compared to that of the natives'. It was argued that initially immigrants earn lower than that of native workers but with time they gradually learn about the host country's labour market and gain experience and catch-up with the natives' earnings. One of the earliest and best analysis given by Chiswick (1978), using 1970 U.S. census arrived that the immigrants earn about 17 percent less than the natives' when they entered the US labour market, and because of faster wage growth they caught up the natives' earnings 15 years after their arrival. After 30 years the typical immigrant earned 11 percent more than the comparable native workers. Immigrants earn lower income when they arrive because, the human capital acquired abroad is significantly less valued than the human capital acquired domestically. This is because there exist differences in school quality, training, language, labour market experiences etc. from country to country (Friedberg, 2000). At the time of arrival immigrants lack US specific skills such as English proficiency, information on job search etc. that are rewarded in the US labour market. Once these skills are acquired, the human capital stock of immigrants grows rapidly than the natives (Chiswick; 1986). But what would make them to earn more than the natives? The reason for this was attributed to 'selection' argument. This was interpreted as immigrants are "more able and more highly motivated than natives" (Chiswick,1978; p.900), and "they choose to work longer and harder than non-immigrants" (Carliner, 1980; p.89). This argument was also supported by the idea that the most able and most ambitious persons go and settle in the foreign country (Borjas, 1994). Thus, the discussion implies that, the immigrants start with lower salaries because the skills acquired in their home country does not perform to their full potential, as they take time to adjust in a different labour market environment, but later because of their superior human capital quality earn subsequently more than the natives.

Recently, there was much criticism on the cross section studies on which the above findings are based. Schoeni (1997; p.84) in this regard held that, “ this relationship exist in cross sectional data could be due to the fact that persons born out side of the united states at different times have different skill abilities, with more recent arrivals having lower labour market ‘quality’. Therefore a point in comparison of workers who arrived recently with those who arrived several years earlier would find disputes among these groups even if there ware no assimilation effect”. This is also reflected in Borjas (1994; p.1672) states that “it might be case, however that newly arrived immigrants are inherently different from those who migrated twenty years ago to forecast the future earnings of newly arrived immigrants”.

Figure 2.3.1



Source: cited in Borjas (1994)

Borjas, G.J. (1994)⁷, explains the implications of cross section studies with help of a hypothetical example. The Figure 2.3.1 illustrates the example. There are three cohorts of immigration, arrived in 1950, 1970, and 1990, and the lines PP, QQ and RR give their age earning profile respectively. It was assumed that the earliest cohort possessing highest productive level than the latter ones, and 1970 cohort of immigrants earn equal to natives’. Now, by accessing data from 1990 census cross section, we get

⁷ The same explanation is also given in Borjas (1985) with the same figure but hypothesised for the 1960, 1970, and 1980 immigrant cohorts.

the age earning profile of all immigrants taken together given by the line CC. It depicts the earnings of the 1990 arrivals, whose age is 20 years, the earnings of 1970 arrivals at age 40, and earnings of 1950 at the age of 60. To put it in the other way, the cross section regression line CC conveys the idea that the immigrants at their arrival, at age 20, earn lower than the natives; catch up with natives after 20 years, at age 40; and earn more than the natives beyond that. Thus the cross section regression line prima-facie there is wage convergence between immigrants and natives, when in fact no immigrant group experienced such an over taking seen in the figure by their own cohort age-earning profile.

The reason for such discrepancy by the findings of cross sectional studies was because, the findings show the skills of successive immigrant cohort relative to natives has started declining in the post war period, where as the decline was much rapid in 1970s. Thus, the wage convergence between the immigrants and natives was much less than what it was previously. The lower skills, much lower starting salaries and by the sluggish wage growth rate raised the doubt that, the immigrants who arrived in 1970's and after that, may not reach at par with that of the natives of US born workers even during their working lives (Borjas, G.J.; 1985; p.202). But these findings too are not free from controversy and debate. Chiswick (1986) retaliated that the period effects on earnings of immigrants and natives was not same, as was assumed by the above argument, but effected favourably to the more skilled one's relatively that of the less skilled, as a result the wage gap between the highly educated and less educated increased.⁸ In addition, during 1980s undoubtedly the number of skilled immigrants increased than previously, but their proportion relative to the natives has declined, which resulted the recent immigrants earn much less than the natives. However, what ever may be the reason, the wage differential between immigrant and natives has declined over the years.⁹

⁸ There has been a lot of research on the increasing wage gap between skilled and unskilled workers with respect to educational attainments. The reasons pointed out were increase in the supply of unskilled workers and increase in the demand for skilled workers because technological progress was biased towards skilled workers (Ohatake, 1998).

⁹ There are many studies confirmed that, there has been an overall decline in the relative skills of successive immigrant cohorts, and 2/3rd of decline in wage differential is attributed to the change in educational attainment of immigrants relatives to natives, e.g., see Lalond and Topel (1992; p.89), Youngert (1994).

In the mean time, it is worth noting that though by and large the foreign human capital earns lower rate of return than the domestic human capital, but finally it is the source of human capital i.e., from which country it is acquired and the level of development of that country matters. In addition the degree of portability of the human capital acquired would determine the wage differential between the immigrants and natives.¹⁰ (Friedberg, 2000).

What is the impact of immigration on natives earnings and employment opportunities?

Theoretically, it was explained by assuming linear homogeneity production function in a competitive industry, in a closed economy. When the fraction of unskilled workers in the immigrant flow, equals the fraction of unskilled workers in the native population. The linear homogeneity of the production function would imply that neither the skilled nor the unskilled wage changes as a result of immigration. In contrast if the fraction of the unskilled workers in the immigrant flow exceeds the fraction of unskilled workers among the natives, immigration increases the skilled wage and decreases the unskilled wage (Borjas, 1994).

But the empirical studies however, detached from the theoretical coherence, with out differentiating the skilled and unskilled workers among the immigrants. They simply explained the correlation between the immigrant share and native wage, ignoring their skill levels. However, the findings across city correlation in the United States show that the average native wage is slightly lower in labour markets where immigrants tend to reside. They also show that the relationship is numerically weak across all types of native workers, white or black, skilled or unskilled, male or female. In addition these studies also show significant negative correlation between immigration and the immigrant wages (Grossman, 1982).¹¹ There are also some studies estimating the correlation between

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¹⁰ Portability would mean, whether you can carry your skills acquired across the borders? This is possible when the similar labour market conditions, language skills, occupational structures; institutional settings exist in both the destinations and the source country (Friedberg, 2000).

¹¹ Grossman (1982), reports a 10 percent increase in the number of immigrants reduces the immigrant wage by 2 percent. Altonji and Card (1991) concluded that a 10 percent increase in the number of immigrants reduces the immigrant wage by at least 4 percent.

immigration and employment opportunities of native, they too confirmed that immigration has a weak effect on the native employment opportunities.¹²

Conclusion

To conclude, it is noted that education and earnings are positively correlated, even if ability, family background and other personal traits do matter. However in order to arrive at the net effect of education on earnings these factors needs to be held constant. So is the relation between education and migration, which establishes the positive correlation. The highly educated person has an edge over the less educated in assessing information, job search and taking risks, and thus in reaping the higher returns out of his migration, where as a less educated or an illiterate is more attached to his family or home land and less likely to move when the distance and cost of migration is higher. Talking about the migration and earnings, it is well established that migration as an investment and more likely when benefits outweigh the costs.

The earnings of the immigrants show that, they earn lower income compared to the natives' income, but gradually when they gain experience in host country labour market, they assimilate very fast and catch-up with the natives' earnings. These findings had to face severe criticism based on the limitation of cross-section studies. Later it was argued that the recent immigrants having much lower skills compared to the earlier immigrants and thus earn much lower than the native counterparts, in spite of that their low assimilation rates raises doubt that they may not catch up with the natives' earnings even during their working life time, of course exceptions are there depending up on the source of human capital and its portability.

¹² Studies of specific labour markets confirmed that immigration has very little impact even when the market receives very large immigrant flow. See Altonji and Card (1991), Borjas (1990 and 1991).

Chapter 3

Education and Earning Profiles of the Indians, Other Foreign-born and Native Americans in the United States: A Comparative Analysis

This chapter looks into the education and earning profiles of the Indians who had emigrated from India at different times and were living in the United States of America as of 2000 or 2001. For a meaningful understanding however, an attempt is made to compare the educational and earning profiles of the Indians in the U.S. with those of the other foreign-born living in U.S., and the U.S. natives. The brief review of the earlier findings show that the immigrants, the foreign-born in general, earn less than that of the native Americans when they enter, but gradually they add up to their experience and learn about the host country's labour market. Subsequently, they assimilate very fast and overtake the natives' earnings at the later stage. But, the most recent findings claim that the recent immigrants (i.e. post 1970 arrivals) earn much less than the natives, and are unlikely to reach at par with that of the native-born workers even in their working lives. This concept was supported by the argument that the recent immigrants are less skilled, with less schooling compared to the pre-1970 arrivals (Borjas, 1985; 1994 and Schoeni 1997). Though the idea was to look at the quality of human capital immigrated to the US in the 1980s and 1990s, an attempt is made to find out how the Indian-born performed in the US labour market vis-à-vis other foreign-born and native-born workers in the U.S. To apply the above findings to Indians, we have examined whether Indians fared exactly as other foreign-born population did in the U.S., or whether they differed from the other foreign-born population taken together in U.S. We seek to explain or underline the quality of Indian human capital that has been entering into the US labour market in the 1990s and still living there in 2000. Though this study does not estimate the losses faced by the source country India, it just intends to assess the quality human capital that the country is losing, measured in terms of their earning power.

To meet this objective, this chapter has been divided into three sections. Section 1 looks at the quality of foreign-born population that entered the U.S. at various points of time and is still residing in the U.S. by 2000, and compares it with the US native population. It explains how the foreign-born population is in itself having diverse groups, differing widely in their population, age distribution, educational attainments, occupations and earnings in the U.S. This section also points out the quality human

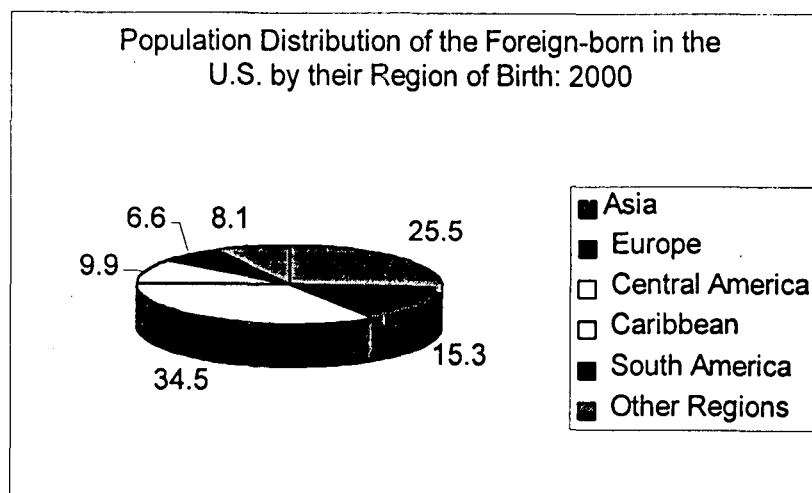
capital that the Asian-born population possesses compared to the other groups of the foreign-born population in U.S. Section 2 seeks to explain how the quality of the Asian population differs from each other by their country of origin, and what is the position of the Indian-born population among the all Asian-born? Section 3 carries a critical discussion and highlights the differential quality of Indian-born vis-à-vis other foreign-born and the US natives in the period 1990-2001, and a comparison is also made between the immigrants of the eighties and nineties (both world and Indian immigrants).

3.1. Foreign-born and Native Americans:

Population Distribution, Year of Entry, Age Profiles of the Foreign-born population in the U.S. by Region of Birth

In the year 2000, 28.4 million 'foreign-born'¹ were residing in the United States, they comprise 10.4 percent of the total US population. Amongst the foreign-born, 51 percent were born in Latin America: 34.5 percent in central America, 9.9 percent in Caribbean and 6.6 percent in south America; 25.5 percent were born in Asia, 15.3 percent in Europe, and the remaining 8.1 percent born in other regions of the world (see Figure 3.1.1).

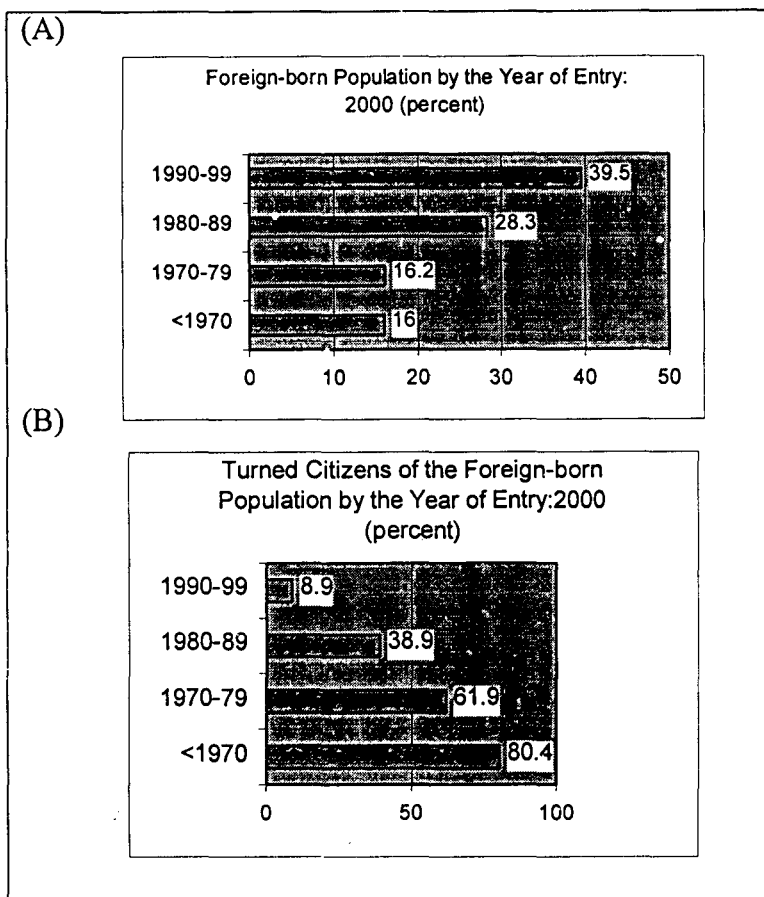
Figure: 3.1.1



Source: U.S. Census Bureau, CPS, march 2000, data obtained and compiled from Lollock, L (2001)

¹ US. Census bureau defines 'foreign-born' as not US citizens at birth. Native citizens on the other hand are born in the United States or US island area such as Puerto Rico, or born abroad of at least one parent who was a US citizen.

Figure 3.1.2:
Foreign-born Population by the Year of Entry and Citizenship Status; 2000

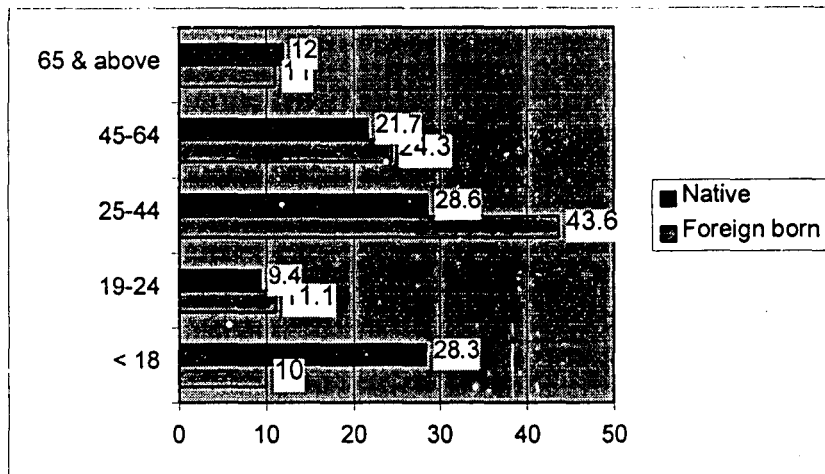


Source: U.S. Census Bureau, CPS, March 2000, data obtained and compiled from Lollock (2001)

Figure 3.1.2 (A) shows that in the year 2000 among the total foreign-born in the U.S., 39.5 percent entered in the United States in the 1990s, 28.3 percent in the 1980s, 16.2 percent in the 1970s, and the remaining 16 percent entered before 1970. Figure 3.1.2 (B) shows among the pre-1970 immigrants, 80 percent had obtained US citizenship, 62 percent of those who entered in the 1970s, 39 percent of those who entered in the 1980s, and 9 percent of those who entered during the 1990s had already obtained the US citizenship by March 2000.² This shows that the earlier immigrant cohorts had acquired US citizenship in a greater proportion than the recent immigrant cohorts. This may be because of the reason that the longer the immigrant stays in the host country, he is more likely to acquire its citizenship.

² A foreign-born resident in the United States requires having 5 years of residence in the United States to become a naturalised citizen of US.

Figure 3.1.3:
Population by Nativity and Age Group: 2000.



Source: U.S. Census Bureau, CPS, March 2000, data obtained and compiled from Lollock (2001)

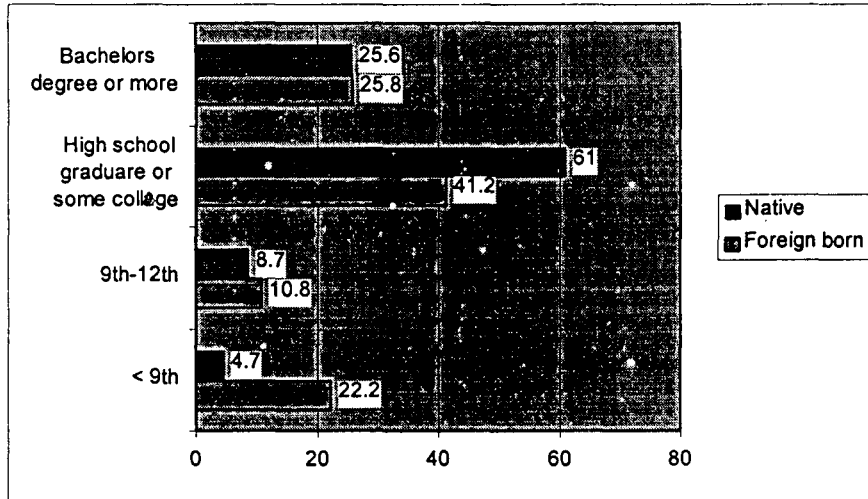
Foreign-born population are more likely to be in the working age group than the native Americans in the US. Figure 3.1.3 shows that 79 percent of the foreign born are in the age group of 18-64, whereas only 60 percent of the natives coming under this age group in 2000. To be more specific, 44 percent of the foreign-born and only 29 percent of the natives are aged 25-44. In the age group of 45-64 years 24 percent of the foreign-born and 22 percent of the natives are found. People in the age group of 65 and above are 11 percent of the foreign-born and a little higher at 12 percent of the natives. People aged less than 18 years are higher among the natives with 28 percent and the same among the foreign-born is only 10 percent.³

³ The small proportion of the foreign born in the youngest age group occurred because most of the children of foreign-born parents are natives, see Lollock, (2001).

Educational Attainments by Nativity and Region of Birth

Figure 3.1.4:

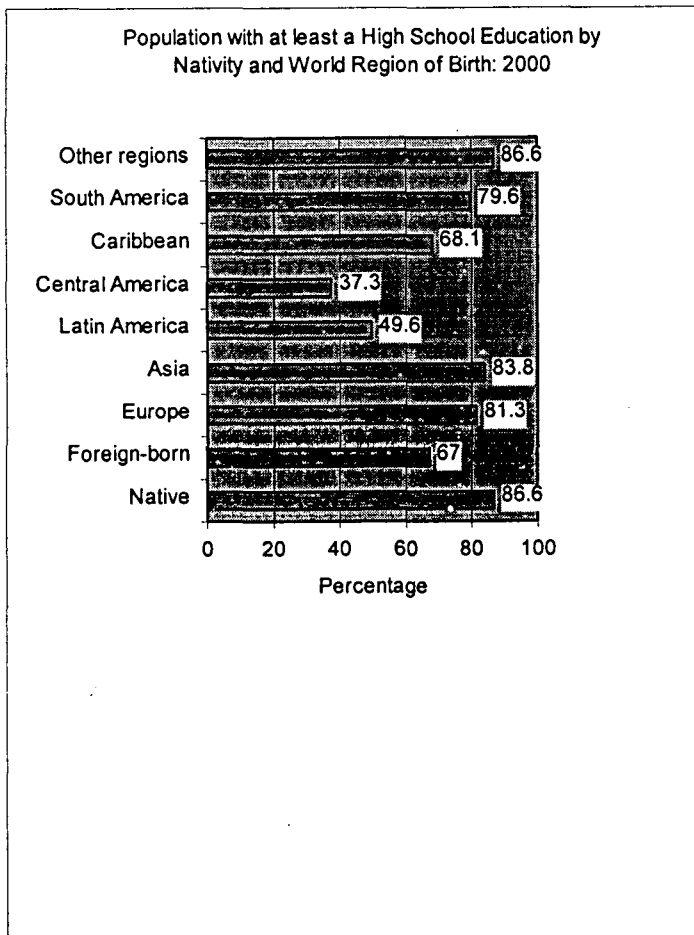
Educational Attainments of the People aged 25-above Years by Nativity; 2000



Source: U.S. Census Bureau, CPS, March 2000, cited in Lollock (2001) Figure 7.

Educational attainment is one of the most important determinants of the economic well-being of the individual and the nation. Figure 3.1.4 depicts the educational attainment of the foreign-born and native population by levels in 2000. It shows that the foreign-born population was less educated than the natives: The foreign-born population aged 25 years and above relatively have higher proportion (33 percent) below 12th grade, whereas, the same for the native Americans was only 13 percent. The foreign-born population with high school graduate degree was only 41 percent, while the 61 percent of natives were having at least the same degree. However, with bachelor's degree or more, the foreign-born and native Americans have almost equal percentage of their respective total population, i.e. 25.8 and 25.6 percent respectively.

Figure 3.1.5:

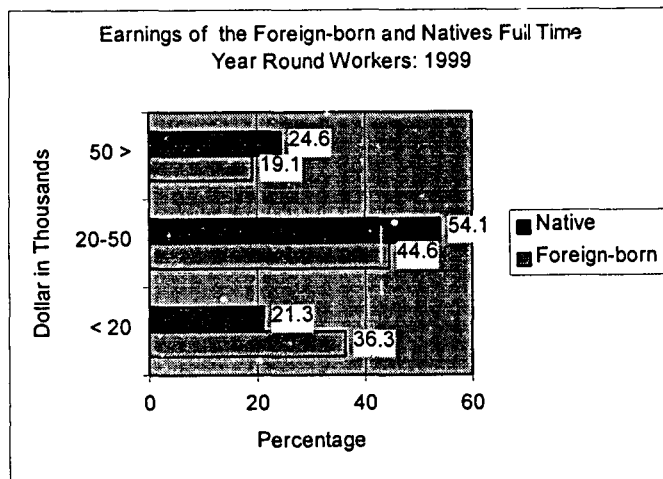


Source: U.S. Census Bureau, CPS, March 2000, cited in Lollock (2001)

Among the native population, the proportion with at least high school graduate degree is as high as 87 percent, the same for the foreign-born is only 67 percent. Amongst the foreign-born, it is the Asian Americans who topped the list (except other regions group) with 84 percent high school graduates, the proportion is higher than the foreign-born average, but is less than the native Americans. The lowest percentage of high school graduates is seen among the Latin Americans in general and Central Americans in particular. Not to forget the Latin Americans group consists 51 percent of the total foreign-born in US, Central Americans in particular have 37 percent which is mostly responsible to pull down the proportion of high school graduates among the foreign-born. Leaving aside the Central Americans and Caribbean, in all other groups we do not find any significant difference in the proportion of high school graduates amongst the foreign-born by their world region of birth.

Median Age and Earnings of the Foreign-born and Native-born Workers

Figure 3.1.6:



Source: U.S. Census Bureau, CPS, March 2000, data obtained and compiled from Lollock (2001)

Figure 3.1.6 throws light on the comparative earnings distribution of the foreign-born and the natives' year round full time workers in 1999. It shows that relatively higher proportion of the foreign-born population falls under the lesser income stream than the natives and vice versa. 36 percent of the foreign-born population earns less than \$20,000, while native proportion is only 21 percent. In other words, 64 percent of the foreign-born population and the 79 percent of the Native American population are earning more than \$20,000. The percentage in the higher income ladder \$50,000 and more was 19 and 25 percent respectively for the foreign-born and natives.

Table 3.1.1:

Median Age and Earnings of the Foreign-born Population by Year of Entry: 2000

Year of Entry	Median Age			Median Earnings of Year round Full time workers (dollars)		
	Male	Female	Total	Male	Female	Total
Total Foreign born	37.0	39.3	38.1	27,143	22,106	25,458
1990 +	27.6	29.1	28.4	21,562	17,325	20,485
1980-89	36.3	37.9	37.0	26,211	21,524	24,638
1970-79	44.8	47.0	46.0	32,414	26,768	30,729
Before 1970	60.7	63.0	62.0	40,817	27,773	35,099

Source: Compiled from US Census bureau, CPS, March 2000. Ethnic Hispanic Statistics Branch, Population Division. Released on 3rd January 2001. [http:// www.census.gov](http://www.census.gov)

Note: The standard error of the earnings is provided in the original source table.

Table 3.1.1 depicts that the recent arrivals are very much younger at their entry than the previous arrivals, as it is seen in the table that the arrivals in 1990 and after that having 28 median years of age. The same for the 1970 arrivals is 62 in 2000, which would be 32 years at their entry in 1970, the age that is higher than the post 1970 arrivals at their entry. The table also shows the median earnings at their entry but hardly we can compare between the immigrant cohorts by their entry since it suffers from the cross section limitations that Borjas has pointed out.⁴ However, we can see the male female earning differences that have reduced for the recent immigrants (i.e. post 1970 arrivals) than the earlier immigrants (i.e. pre 1970 arrivals).

Table 3.1. 2:
Median Age and Median Earnings, By Citizenship Status; 2000

Citizenship Status	Median Age			Median Earnings of Year Round Full Time Workers (dollars)		
	Male	Female	Total	Male	Female	Total
Total	34.0	36.0	35.1	36,476	26,324	31,535
Native	33.3	35.5	34.5	37,419	26,640	32,082
Naturalised Citizen	46.2	48.6	47.5	36,068	27,647	31,894
Not a Citizen	32.4	33.7	33.0	22,214	18,181	21,164

Source: Compiled from US Census bureau, CPS, March 2000. Ethnic Hispanic Statistics Branch, Population Division. Released on 3rd January 2001. [http// www.census.gov](http://www.census.gov)

Note: The standard error of the earnings is provided in the original source table.

Table 3.1.2 shows the median age and median earnings by citizenship status in 2000. The table reflects that the naturalised citizens having highest median age with 48 years followed by Natives and non-citizens with 35 and 33 median years respectively. The median earnings of the year round full time workers is the highest among the natives with \$32,082 followed by the naturalised citizens with \$31,894 and non-citizens with \$21,164. However, the earnings of the naturalised citizens and natives do not differ significantly, but they do differ significantly in their age. The naturalised citizens are much older compared to the natives.

⁴ See Chapter 2, Figure 2.3.1 for the discussion on the limitations of the cross section studies for the cross generation comparisons, p.17.

Table 3.1.3:**Median Age and Earnings of the Foreign-born, by World Region of Birth: 2000**

World Region of birth	Median Age			Median Earnings of Year Round Full Time Workers (dollars)		
	Male	Female	Total	Male	Female	Total
Total Foreign born	37.0	39.3	38.1	27,143	22,106	25,458
Europe	47.1	52.7	50.0	44,276	28,172	35,910
Asia	38.1	40.0	39.2	36,837	29,662	32,779
Latin America	34.3	36.3	35.3	20,955	17,188	19,870
-Central America	32.5	33.7	33.0	19,497	15,325	17,876
-Caribbean	40.6	42.3	41.5	26,879	21,155	24,449
-South America	37.0	39.3	38.2	27,410	23,080	25,464
Other Foreign Born	39.1	37.6	38.5	35,840	26,920	32,021

Source: Compiled from US Census bureau, CPS, March 2000. Ethnic Hispanic Statistics Branch, Population Division. Released on 3rd January 2001. [http:// www.census.gov](http://www.census.gov)

Note: The original source table provides the standard error of these earnings.

Table 3.1.3 shows that among the foreign-born the Europeans having higher median earnings with 36 thousand dollars followed by Asians with 33 thousand dollars, more than the total foreign-born average of 25 thousand dollars. The Central Americans however, earning least in the Latin American group as well as other foreign-born group average with 18 thousand dollars, and is greatly responsible to pull down the Latin American group average to 20 thousand dollars. But much of these differences in earnings are explained by their differences in age between them. The higher earning of European group is because of their higher median age (i.e. 50 years). Once, if the age is controlled, the Asian Indian group would show higher earnings than the Europeans, because the difference in age between the groups is greater than the difference in earnings.

Thus, the foreign-born population in the U.S. differ significantly by their demographic, educational and earning profiles between the immigrants of world region of birth. Asians comprise one quarter of the total foreign-born population in the U.S., and 2nd only after the Latin Americans comprising more than half of the total foreign-born population in U.S. In education, the Asians are the best educated than any other foreign-

born group by their world region of birth, and their educational attainments are at a much higher level than the total foreign-born average. The Asians also earn much higher income than the total foreign-born, but are second after the Europeans. However, since the Asians are much younger than the Europeans, and so if the age is controlled then the Asian-born would show higher earnings than the Europeans.

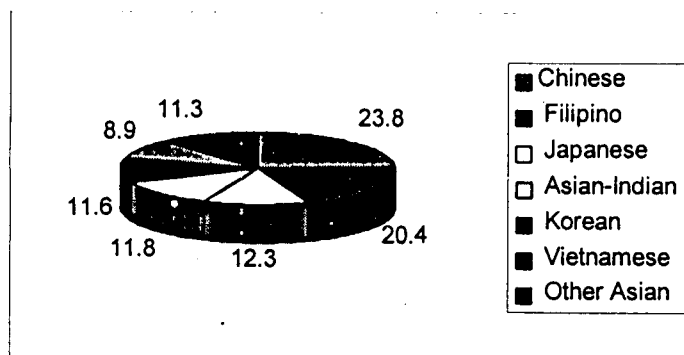
3.2. Asians and Asian Indians in the US:

Population Distribution, Age, Education and Occupational Profile of the Asians in the US by Country of Origin

In 1990, Asians in US accounted 6.9 million an increase of 99 percent over the 1980. By 2000, their numbers grown to 10.2 million registering a 48 percent increase from the 1990. As a percent of the US population it increased from 2.8 percent in 1990 to 3.6 percent by 2000. The following pie chart shows the distribution of the Asian population in US by their country of birth.

Figure: 3.2.1:

Asian Population by their Country of Origin: 1990
(Percent)

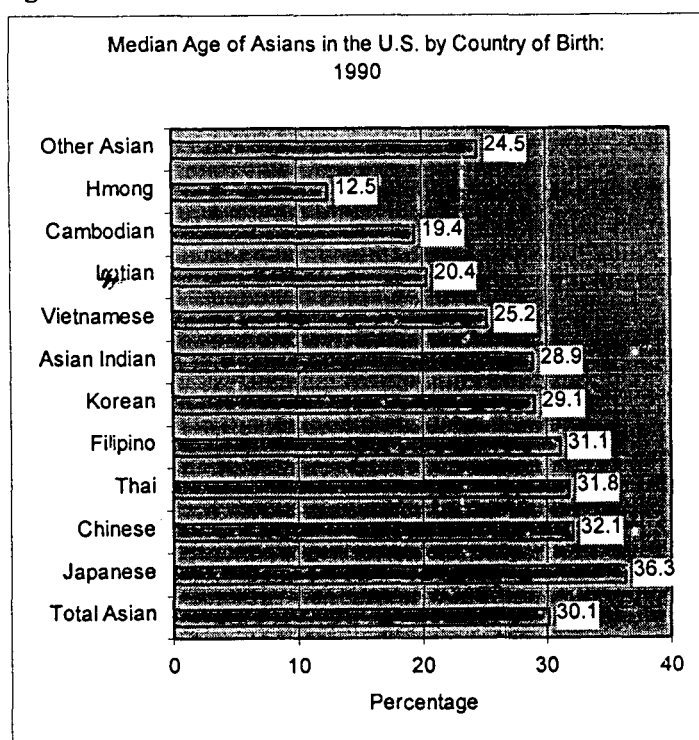


Source: Paisano (1993), Figure 1.

Note: Other Asian includes Laotian, Cambodian, Thai, Hmong, Pakistan, Indonesian, Malayan, Bangladeshi, Sri Lankan, Burmese and others.

In 1990, the Chinese people topped among the Asians in US constituting 23.8 percent, followed by Filipino with 20.4 percent, Japanese 12.3 percent, Asian-Indians at 4th place with 11.8 percent, Koreans 11.6 percent, Vietnamese 8.9 percent and Other Asians 11.3 percent. However the Asian-Indians Surpassed the Japanese and placed at 3rd only after Chinese and Filipinos in 2000.

Figure: 3.2.2:



Source: Paisano (1993), Figure 4.

Asians had a median age of 30 years in 1990 comparatively younger than the national median age of 33 years. Asian-Indians are younger than the Asians with a median age of 29 years. However, Japanese had the highest median age with 36 years followed by Chinese, Thai, Filipino, and Koreans with 32, 32, 31, and 29 respectively above the Asian-Indian average.

Table: 3.2.1

Educational Attainment of the Asians in the U.S. by Sex and Levels: 1990
(Percent, 25 years old and over)

	High School Graduate or higher			Bachelor's degree or higher		
	Male	Female	Total	Male	Female	Total
Total population	75.7	74.8	75.3	23.3	17.6	20.5
Total Asian	81.7	73.9	77.8	43.2	32.7	38.0
Chinese	77.2	70.2	73.7	56.7	35.0	40.9
Filipino	84.2	81.4	82.8	36.2	41.6	38.9
Japanese	89.9	85.6	87.8	42.6	28.2	35.4
Asian Indian	89.4	79.0	84.2	65.7	48.7	57.2
Korean	89.1	74.1	81.6	46.9	25.9	36.4
Vietnamese	68.5	53.3	60.9	22.3	12.2	17.3
Cambodian	46.2	25.3	35.8	8.6	3.2	5.9
Hmong	44.1	19.0	31.4	7.0	3.0	5.0
Laotian	49.4	29.8	39.6	7.0	3.5	5.3
Thai	88.6	66.2	77.4	47.7	24.9	36.3
Other Asian	85.9	78.7	82.3	47.5	34.2	40.9

Source: Compiled from Paisano (1993), Table 1.

Table 3.2.1 shows that the educational attainment of the Asian population is much better than the total population in U.S. taken together. In higher education, the table depicts that 38 percent of the total Asian population possess bachelor's degree as against only 21 percent of the total U.S. population. In educational attainments the Asian population in U.S. shows significant differences from country to country. In 1990, 75 percent of all Asians (25 years old and over) were at least high school graduates. The highest proportion completing high school or higher was almost 88 percent for Japanese, followed by Asian Indians with 84 percent, Filipino 83 percent and Koreans with 82 percent. In contrast, the proportion is only 31 percent (least among the Asians) for Hmongs. If we look at the proportion of high school graduates in Japanese and Asian Indian male population we do not find any significant difference, but they do differ significantly in their female population percentages. At the college level, 38 percent of Asians had graduated with bachelor's degree or more by 1990. Asian Indians showing the highest proportion in bachelor's degree or more with 57 percent of its population, followed by the Chinese with only 41 percent. The Japanese who show the highest percentage of high school graduates than any other Asian country were placed 4th only with 35 percent for the bachelor's degree, far behind the Indians, Chinese and Filipinos.

Language at Home and Ability to Speak English

Language at home and ability to speak English is also an important determinant of earnings and productivity in the US labour market. If we look at this aspect, the Asians do not possess much of this language advantage, but in contrast the Asian-Indians possessing a greater advantage. "Of the 4.1 million Asians having 5 years old and over, 56 percent do not speak English "very well" and 35 percent were linguistically isolated." These percentages for the Asian Indians is much lower than only 31 percent do not speak English very well and only 17 percent are linguistically isolated. Only 15 percent of the Asian Indians speak their Indian language at home, this percentage is much higher for the other Asian countries (see Paisano, 1993; Table 2).

Since, Indian-born attain much higher levels of education compared the other foreign-born, and native-born. Therefore it is quite possible to find them in the higher levels of occupations as well. Table 3.2.2 depicts the occupational profile of the Indian, Asian and World immigrants to US in the mid of nineties (i.e. for the period 1994-96).

Table: 3.2.2

India's Share In Asian and World Immigration of Knowledge and Service Workers to The US*: 1994-96

Occupations	Indian immigrants	Asian immigrants	World immigrants	Indians as a % of Asians	Indians as a % of world
Overall Immigration	114,528 (100.0)	868,327 (100.0)	2,440,777 (100.0)	13.2	4.7
Total Occupational	38,395 (33.5)	295,516 (34.0)	851,507 (34.9)	13.0	4.5
Professional, Technical	19,603 (17.1)	89,197 (10.3)	201,568 (8.3)	22.0	9.7
Executive, Managerial	6,246 (5.5)	41,841 (4.8)	83,631 (3.4)	14.9	7.5
Sales Administrative Support	2,390 (2.1)	20,816 (2.4)	61,610 (2.5)	11.5	3.8
Crafts and Repairs	767 (0.7)	17,775 (2.0)	66,780 (2.7)	4.3	1.1
Operator, Fabricator and Labour	846 (0.7)	43,543 (5.0)	195,861 (8.0)	1.9	0.4
Farming, Forestry and Fishing	3,567 (3.1)	20,366 (2.3)	42,698 (1.7)	17.5	8.4
Service	3,487 (3.0)	47,406 (5.5)	159,409 (6.5)	7.4	2.2
No Occupation Reported	76,133 (66.5)	572,811 (66.0)	1,589,270 (65.1)	13.3	4.8

Source: U.S. INS, cited in Khadria (1999), Table 3.25, p. 109.

Note: Figures in bracket represent percentage

* Whereas professional, technical, executive and managerial occupations are assumed to belong to the category of knowledge workers, the rest are assumed to belong to service workers.

The Table 3.2.2 shows in 1994-96 higher proportion of Indian immigrants clustered around the higher occupations such as professional, technical, executive and managerial than the Asian and the total world immigrants to US. While the proportion in respect to their totals going down as we move down in the occupational ladder such as sales, administrative support, crafts, repairs, operators fabricators and labourers, than that of the Asian and total world immigrants. Surprisingly, a noticeable proportion (3.1 percent) of Indian immigrants engage in farming, forestry and fishing occupations compared to 2.3 percent and 1.7 percent Asians and world immigrants respectively.

The last two columns in the table show the Indians as a percent of the Asians and the world immigrants in the respective occupations. They show an impressive proportion in the professional, technical, executive and managerial categories, the so-called

'Knowledge Workers'⁵ and a negligible proportion in the unskilled labour called as 'service workers,' with an exception to farming, forestry, and fishing. Thus, the table gives an impression that the Indian knowledge workers not only represented higher proportion among the total Indian immigrants, but, they do constitute a remarkable proportion in the Asian and world immigrant knowledge workers. However, from the table it reflects that for a larger proportion of the immigrant flow occupation is not reported, as it is a highest in case of the Indian immigrants with 66.5 percent, for Asians and World immigrants it is 66 and 65 percent respectively.⁶ Thus, once these unreported occupants are reported, then, we may find even more differences than what is shown in Table 3.2.2. This assumption can be made safely for the Asian Indians looking at their higher proportion in higher educational degree concentrated particularly in the masters.⁷

Percapita Income

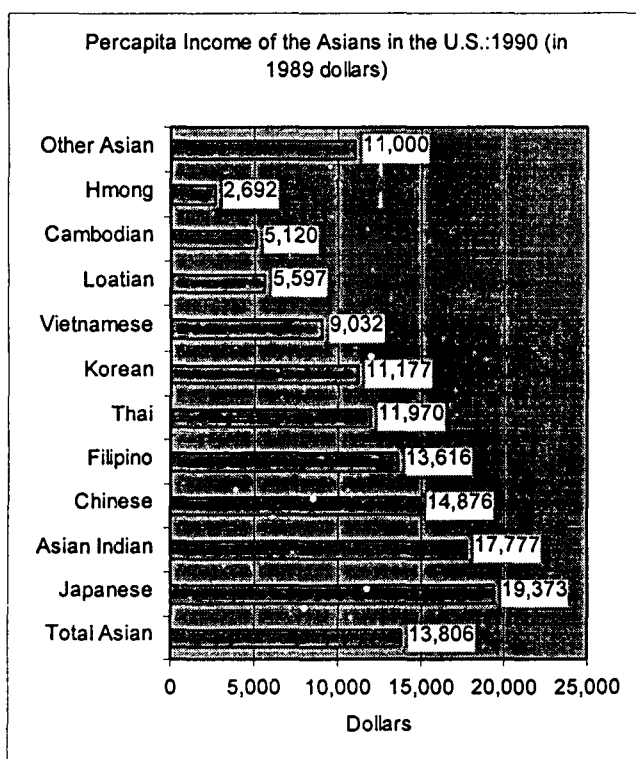
In 1989, the percapita income of Asians in the U.S. was \$14,000. Amongst the Asians the Japanese were having the highest percapita income of \$19,000 followed by Indians with \$18,000 and Chinese with \$15,000. All these three groups had their percapita higher than that of the Asian average (see Figure 3.2.3).

⁵ Peter Drucker's classification of the top occupations such as professional, technical, executive and managerial as 'knowledge workers' and in the lower occupations such as Sales, Administrative, crafts, operators etc called as 'service workers,' cited in Khadria, B. (1999).

⁶If we assume this unreported proportion constitutes the dependent population (i.e. the age group below 18, and 65 plus), and those who are out of work of the age 18-64, it will not be realistic and correct because the dependent population is accounted 14 percent and 24 percent respectively for the Indian- and foreign-born population for the same period (see Table 3.3.1), if we add here the unemployed work-force of the respective population, still the proportion is not constituting the total. In March 2000, 4.9 percent of the foreign-born in the civilian labour force were unemployed (see Lollock, 2001). Paisano (1993) from the US department of commerce, Census Bureau records 67 and 72 percent labour force participation for the Asians and Asian Indians

⁷ Discussed in section 3 of this chapter.

Figure 3.2.3:



Source: Paisano (1993), Figure 9.

Keeping these facts in mind, it is plausible to argue that the Asians were having higher human capital content than other foreign-born population in the U.S. in terms of age, educational attainment (discussed in section 1) and occupational distribution. Similarly, the Asian-Indians were possessing even higher human capital compared to the other Asians except the Japanese, who had higher earnings.

3.3. Comparison of Age, Education and Incomes of the Native-, Indian- and Other-foreign-born in the US

The analyses in this section through the Tables 3.3.1 to 3.3.4 outline the distinctive nature of the Indian-born population in the U.S. In addition to being younger, better educated and richer than comparable other foreign-born and native-born population, these trends have even accelerated considerably in the nineties. Indian immigrants in the nineties are even more concentrated in the younger working age group, are more educated and disproportionately concentrated in the higher income brackets compared to the earlier decade immigrants.

TABLE 3.3.1:
Age Distribution For Native-, Indian-, And Other-foreign-born Population In the U.S.; 1990, 1994-2001

Native-born:						
Year	Median	Population Shares				
		< 18	18-24	25-44	45-64	65+
1990	32	27	10	31	19	13
1994	32	28	10	31	19	12
1995	33	28	9	31	19	12
1996	33	29	9	31	20	12
1997	33	28	9	30	20	12
1998	34	28	9	30	21	12
1999	34	28	9	29	21	12
2000	34	28	10	29	22	12
2001	34	28	10	28	22	12
Indian-born:						
Year	Median	Population Shares				
		< 18	18-24	25-44	45-64	65+
1990	35	10	12	53	21	4
1994	35	9	18	53	25	5
1995	37	8	11	52	24	6
1996	35	10	9	54	23	4
1997	36	8	7	54	24	7
1998	36	6	10	48	29	7
1999	36	6	7	52	28	7
2000	35	6	10	51	26	6
2001	33	8	9	55	23	5
Other foreign-born:						
Year	Median	Population Shares				
		< 18	18-24	25-44	45-64	65+
1990	37	11	12	41	22	14
1994	36	11	12	43	22	12
1995	37	11	12	43	23	12
1996	37	11	11	43	23	11
1997	37	10	12	43	24	11
1998	37	10	11	44	24	11
1999	38	9	11	44	24	12
2000	37	10	11	43	24	11
2001	38	10	11	44	25	11

Source: IPUMS for 1990. March CPS for 1994-2001, cited in Desai et al. (2001)

Note: The second column shows the median age in years for all native-born, or other foreign-born for years 1990, 1994-2001. The five under "population shares" display the percentage of native-born, Indian-born, or other foreign-born of all ages columns living in the U.S. that fall within the appropriate age group for 1990, 1994-2001.

Table 3.3.1 shows the age distribution for Native-, Indian-, and Other Foreign-born Population in U.S. for the year 1990, and from 1994 to 2001. For the year 1990, according to the 1990 decennial census the native-born population was the youngest group with the median age of 32 years compared to the Indian-born and other foreign-born having 35 and 37 years of median age respectively. But, afterwards, according to the annual supplements March, Current Population Surveys (March CPS), since it's beginning from 1994, and to 2001 the median age for the native-born slowly increased and stood at 34 years in 2001. Though for Indian-born it shows an increasing trend in the mid nineties, subsequently it declined and stood at 33 years of median age in 2001, lower than that of the natives. On the other hand, the other foreign-born population shows much higher median age (38 years in 2001) compared to the Indian-born and native-born population.

However, the notable point is in the population share across the age groups in their respective population. The population share of the age group below 18 and 65 plus, the so called dependent population (or the non-working age group) is high in case of native-born (40 percent for almost all the years) compared to the other foreign-born (varying between 21 percent and 25 percent) and Indian-born (in the range of 12 percent to 14 percent during the period 1994-2001). This indicates that the Indian-born population having the least share of dependent population compared to the other foreign-born and native-born population. Thus, it is needless to say that the percentage of work force is high among the Indian-born population compared to the other foreign-born as well as native-born in the U.S.

TABLE 3.3.2:

Educational Attainment for Native-, Indian-, and Other-foreign-born aged 25-64: 1990, 1994-2001.

Native-born:								
Year	Population Shares					Graduate Breakdown		
	<High School	High School Graduate	Some College	Bachelor's Degree	Graduate Level	Masters	Professional	Ph.D
1990	17	32	28	15	8	5	2	1
1994	13	36	27	16	8	6	1	1
1995	12	35	28	17	8	6	2	1
1996	12	35	28	18	8	6	1	1
1997	11	35	28	18	8	6	1	1
1998	11	35	28	18	8	6	1	1
1999	10	34	28	19	9	6	1	1
2000	10	34	29	19	9	7	1	1
2001	9	33	29	19	9	7	1	1
Indian-born:								
Year	Population Shares					Graduate Breakdown		
	<High School	High School Graduate	Some College	Bachelor's Degree	Graduate Level	Masters	Professional	Ph.D
1990	12	11	14	27	36	21	9	6
1994	8	9	15	35	32	17	11	4
1995	8	10	12	26	44	24	13	7
1996	8	13	12	30	38	27	7	4
1997	7	16	10	34	33	23	6	4
1998	6	14	15	35	31	22	5	3
1999	6	10	10	36	38	25	7	6
2000	6	8	9	35	41	27	6	8
2001	3	9	10	40	38	28	6	4
Other foreign-born:								
Year	Population Shares					Graduate Breakdown		
	<High School	High School Graduate	Some College	Bachelor's Degree	Graduate Level	Masters	Professional	Ph.D
1990	38	20-	20	13	9	5	2	1
1994	34	25	17	16	8	5	2	2
1995	35	25	17	15	8	5	2	2
1996	35	23	18	15	8	5	2	2
1997	34	24	18	16	9	5	2	2
1998	33	25	16	17	9	6	2	2
1999	33	25	17	16	9	6	2	2
2000	32	26	17	16	9	5	2	2
2001	32	25	17	17	9	5	2	2

Source: IPUMS for 1990. March CPS for 1994-200, cited in Desai et al. (2001).

Note: The five columns under "population shares" display the percentage of native-born, Indian-born, or other foreign-born ages 25-64 living in the U.S. that have attained various levels of education for years 1990, 1994-2001. For those that have attained "Graduate Level," a further break down by degree type provided in the three columns under "Graduate Breakdown."

Table 3.3.2 shows the educational attainments of the native-, Indian- and other foreign-born aged 25-64 with their highest degree. In addition, the break down of graduate level population, as masters, professional and Ph.D, is also shown. For all the three groups, the population share having incomplete high school level education is

respective population. However, the decline was much rapid among the Indian-born, as much as 75 percent, with their already existing much lower population share of the high school non-completers (i.e. 12 percent in 1990 to 3 percent in 2001). For the native-born the decline was 47 percent (from 17 percent in 1990 to 9 percent in 2001), whereas the other foreign-born showed only 16 percent decline (from 38 percent in 1990 to 32 percent in 2001). The remarkable increase in the population share with bachelor's degree for all the three groups is also seen in the table. However, the rate of increase was much higher for the Indian-born with 48 percent (27 in 1990 to 40 in 2001) compared to the other foreign-born with 31 percent (from 13 percent in 1990 to 17 percent in 2001), and natives' with 27 percent only (from 15 percent in 1990 to 19 percent in 2001) during the period 1990 to 2001.

One must distinguish the quality of human capital that the Indian-born possess, compared to the US natives and the other foreign-born in US in terms of the larger chunk of the Indian-born population possessing higher educational degrees, at masters, professionals, and Ph.D level. The average proportion since 1994 to 2001 was 37 percent, whereas the same for the native and other foreign-born was only 8 to 9 percent respectively. Moreover, in 2001, 28 percent Indian-born possessed the master's degrees as against 7 and 5 percent among the native- and foreign-born respectively. The differences are similar with professional and Ph.D degrees as well. If we pull together all the levels of higher education degrees i.e. with bachelor's degree or more, the proportion is 78 percent among the Indian-born in 2001 whereas the same for native-born and other foreign-born stands at merely 28 and 26 percent respectively. In the period 1994-2001 the average of the Indian-born with the bachelor's degree or more was 71 percent compared to 27 and 25 percent for the native-born and foreign-born respectively.

Table 3.3.3:

Income Distribution For Native-born, Indian-born, And Other-foreign-born Aged 18-64: 1990 and 1994-2001

Native-born:						
Year	Median	Population Shares (as % of Median)				
		0-50%	50-100%	100-200%	200-400%	>400%
1990	\$20,293	33	17	27	18	4
1994	\$19,836	31	19	28	18	4
1995	\$20,100	30	20	28	18	5
1996	\$20,626	30	20	29	17	4
1997	\$21,418	30	20	29	17	4
1998	\$21,580	30	20	29	16	4
1999	\$22,826	30	20	30	16	4
2000	\$23,126	30	20	29	16	5
2001	\$23,925	29	21	30	16	4
Indian-born:						
Year	Median	Population Shares (as % of Native Median Income)				
		0-50%	50-100%	100-200%	200-400%	>400%
1990	\$20,670	35	14	21	20	10
1994	\$21,943	32	14	24	21	9
1995	\$24,980	28	14	26	22	11
1996	\$25,145	31	16	25	19	10
1997	\$24,301	29	18	24	21	8
1998	\$27,915	29	15	23	24	9
1999	\$31,715	30	11	24	26	9
2000	\$29,986	35	9	18	24	14
2001	\$28,121	34	11	18	25	12
Other foreign-born:						
Year	Median	Population Shares (as % of Native Median Income)				
		0-50%	50-100%	100-200%	200-400%	>400%
1990	\$14,483	39	21	23	13	4
1994	\$13,053	42	23	21	11	3
1995	\$13,803	41	24	21	11	4
1996	\$13,562	42	24	22	10	3
1997	\$13,729	41	24	22	10	3
1998	\$14,443	40	25	21	10	4
1999	\$14,816	41	26	21	9	3
2000	\$15,510	40	26	21	11	3
2001	\$16,084	37	26	23	10	3

Source: IPUMS for 1990. March CPS for 1994-2001, cited in Desai et al. (2001)

Note: The second column shows the median income for native-born, Indian-born, or other foreign-born ages 18-64 living in the U.S. for years 1990, 1994-2001 in 2001 dollars. The five column under "population share" display the percentage of native-born, Indian-born, or other foreign-born ages 18-64 living in the U.S. for years 1990, 1994-2001 that lie between various fractions of and multiples of the median native-born income for that year.

Table 3.3.3 shows the median income of native-, Indian- and other foreign-born workers for the year 1990, 1994-2001. The median income of the Indian-born is always higher than that of the native-born and other foreign-born population, whereas the foreign-born population always earned least among the three groups. Population share as a percent of the median income of the native-born workers gives a better comparison of earnings between the groups. A comparison of the three groups depicts that population share below 50 percent of the native median income is higher for the foreign-born

followed by the Indian-born and native-born. But the population share of the Indian-born in the two above-200 percent of the native-median-income groups is higher (37 percent in 2001), followed by the native-born (20 percent in 2001) and other foreign-born (13 percent in 2001). Thus a greater proportion of the Indian-born population is in the higher income groups compared to foreign-born population and the natives.

Table 3.3.4:

Percentage Change and Income Differential of Native-born, Indian-born and Other-foreign-born: 1990, 1994-2001

Year	Percentage change from the previous year			Percentage change from the year 1990			Indian-born		Native-born
	Native-born	Indian-born	Other Foreign-born	Native-born	Indian-born	Other Foreign-born	Percentage more than native-born income	Percentage more than other foreign-born income	Percentage more than other foreign-born income
1990	-	-	-	-	-	-	1.85	42.72	40.15
1994	-2.2	6.15	-9.8	-2.25	6.15	-9.8	10.62	68.10	51.96
1995	1.33	13.8	5.7	-0.95	20.85	-4.69	34.27	80.97	45.62
1996	2.6	0.66	-1.7	1.64	21.65	-6.36	21.91	80.54	52.08
1997	3.8	-3.35	1.23	5.54	17.57	-5.26	13.46	77.00	56.00
1998	0.8	14.87	5.2	6.34	35.05	-0.28	29.36	93.27	49.41
1999	5.8	13.61	2.6	12.48	53.43	2.30	38.94	114.05	54.06
2000	1.3	-5.45	4.7	13.96	45.07	7.09	29.66	93.33	49.10
2001	3.5	-6.21	3.7	17.90	36.04	11.05	17.54	74.83	48.75

Source: Compiled from the Table 3.3.3.

Table 3.3.4 shows the percentage change of median income for the native-born, Indian-born and other foreign-born from the previous year, from the year 1990 onwards. It also shows income differentials between Indian-born, native-born and other foreign-born. The differences between Indian-born and native-born, Indian-born and other foreign-born, and native-born and other foreign-born are increasing over the period. The highest differences in income of the Indian-born vis-à-vis native-born and other foreign-born found in the year 1999 that the Indian-born were earning 39 percent more than the native-born income and 114 percent more than the total foreign-born income. On the other hand, the native-born earned with highest 56 percent more than the other foreign-born income in the year 1997. However, these differences declined to 18 percent for the Indian-born and native-born, 75 percent for Indian-born and foreign-born, and 49 percent for the native-born and foreign-born in 2001.

Thus, the income differentials between the Indian-born and native-born, native-born and foreign-born and in turn Indian-born and other foreign-born are increasing over the years during the period 1990 to 2001. This would mean that the recent Indian immigrants to U.S. have higher earning power than the earlier immigrants in the decade. This could happen no doubt because the native-born, Indian-born and other foreign-born all experienced increase in their incomes, but the increase registered higher in case of the Indian-born with 36 percent followed by the native-born with 18 percent and the other foreign-born with only 11 percent in the period 1990-2001. The average annual growth rate for the whole period would be 3.3, 1.6, and 1 percent respectively for Indian-born, native-born and other foreign-born. The 1990 decennial census that includes all those immigrated till 1989 says the Indian born in 1990 were earning 1.8 percent more than the native-born workers and 43 percent more than the other foreign-born. The native-born earned 40 percent more than the other foreign-born workers in the same year 1990. However, the earning differential increased subsequently by 2001, where the Indian-born earned 18 percent more than that of the native-born and 75 percent more than the other foreign-born earnings. On the other hand, the native-born earned 49 percent more than the other foreign-born income.

Table 3.3.5:

Income, Educational Attainment, and Age Distribution for Indian-born and Other-foreign-born "Recent Immigrants" (of two censuses) in the US

Incomes (For ages 18-64):							
	Median	Population Shares (as % of Native Median income)					
		0-50%	50-100%	100-200%	200-400%	>4000%	
Indian-born							
2000 CPS	\$19,673	44	9	14	24	9	
1990 Census	\$13,780	43	18	23	14	3	
Difference	\$5,893	1	-9	-9	11	6	
Other non-natives							
2000 CPS	\$11,374	51	27	15	6	2	
1990 Census	\$10,749	49	24	19	7	2	
Difference	\$625	2	3	-4	-1	0	
Difference-in-difference	\$5,256	-1	-12	-5	11	6	

Educational attainment (For ages 25-64):								
	Population Shares					Graduate Breakdown		
	<High School	High school Graduate	Some collage	Bachelor's Degree	Graduate level	Masters	Professional	Ph.D
Indian-born								
2000 CPS	7	6	8	39	39	29	5	5
1990 Census	15	13	14	28	30	20	6	5
Difference	-8	-7	-6	11	9	9	-1	1
Other non-natives								
2000 CPS	33	25	15	18	8	5	2	2
1990 Census	41	18	18	14	9	6	2	1
Difference	-7	7	-4	5	-1	-1	0	0
Difference-in-difference	-1	-14	-2	6	10	10	-1	0

Age:						
	Median	Population Shares				
		<18	18-24	25-44	45-64	65+
Indian-born						
2000 CPS	29	10	16	58	11	4
1990 Census	30	15	14	56	12	4
Difference	-1	-5	2	2	-1	0
Other non-natives						
2000 CPS	28	21	19	45	12	3
1990 Census	27	21	19	46	10	3
Difference	1	-1	0	-1	1	0
Difference-in-difference	-2	-4	2	3	-2	0

Source: IPUMS for 1990. March CPS for 1994-2001, cited in Desai et al. (2001)

Note: The top panel provides the median income of either Indian-born or other foreign-born ages 18-64 in terms of 2001 U.S. dollars and the percentages of either Indian-born or other foreign-born ages 18-64 that fall within certain fractioned multiples of the median income for native-born in that year, for those that immigrated to the U.S. within the past 10 years from when the survey (Census or CPS) was taken. The second panel provides the percentages of either Indian-born or other foreign-born ages 25-64 that have attained various levels of education, for those that immigrated to the U.S. within the past 10 years from when the survey was taken. The third panel provides the median age of either Indian-born or other foreign-born and percentages of either Indian-born or other foreign-born that lie within various age group, for those that immigrated to the U.S. within the past 10 years from when the survey (Census or CPS) was taken.

Table 3.3.5 shows income, educational attainment and age distribution for Indian-born and other foreign-born immigrants of the last two decades, i.e. those who immigrated to U.S. in the 1990s reflected in 2000 CPS and those who immigrated in 1980s reflected in the decennial census 1990. The top panel shows the median income of the Indian-born and other foreign-born ages 18-64, in 2001 U.S. dollars. It shows that the Indian-born immigrants of the 1990s were earning \$19,673 in 2000, \$5,893 (43 percent) more than the Indian-born immigrant earnings of the 1980s in 1990. Moreover, the change in the population distribution of the nineties immigrants compared to the immigrants of the eighties was in favour of the higher income strata. The table shows that the population share earning more than 200 percent of the native median income increased from 17 percent for the immigrants of the eighties in 1990 to 33 percent for the immigrants of the nineties in 2000. Conversely, the other foreign-born immigrants of the nineties earned \$11,374 in 2000, \$625 (6 percent) more than the immigrants of the eighties in 1990. Its change in income distribution unlike the Indian-born was in favour of the lower income strata. It is clear from the table that the population share earning below-100 percent of the native-median-income increased from 73 percent in 1990 for the immigrants of the eighties to 78 percent in 2000 for the immigrants of the nineties. The difference-in-difference income represents the net gain in income of the Indian-born against the foreign-born from 1990 to 2000, which stood at \$5,256. Thus, it follows that the immigrants (both Indian and other non-natives) of the 1990s in 2000 earned more than the earnings of the immigrants of the 1980s in 1990 in 2001 U.S. dollars. The Indian immigrants of the 1990s however, show greater increase in the earnings compared to the other foreign-born, resulting an increase in the gap of the earnings between the Indian immigrants and other immigrants to US in the 1990s compared to the earning difference of the immigrants of 1980s.

In the educational attainments, 78 percent of the Indian immigrants of the 1990s had at least bachelor's degree or more and 92 percent had at least high school graduate degree or more. The proportion for the Indian immigrants of the 1980s with bachelor's and high school graduate degree was only 58 and 85 percent respectively. It shows a 20 percentage points difference in population share with bachelor's degree and 7 percentage points difference with high school graduate degree between 1990 and 2000. Whereas 26 percent of the other foreign-born immigrants to the U.S. in the 1990s were having at least

bachelor's degree and 66 percent were high school graduates, the same for the 1980s immigrants were 23 and 59 percent respectively. It shows a difference of 3 and 7 percentage points for the bachelor's degree and high school graduate degree respectively. The median age shown in panel 3 for the Indian-born immigrants however has declined by one year from 30 years for the immigrants of the eighties in 1990 to 29 for the immigrants of the nineties in 2000. Whereas, the other foreign-born (non-native and non-Indian) immigrants added one more year to their median age of 27 of the eighties in 1990 to 28 of the 1990s in 2000. Thus, the net gain in age of the Indian-born against the other non-native immigrants of the eighties and nineties was of -2 years.

The higher earnings of Indian immigrants of the 1990s (recent in 2000) over the immigrants of the 1980s (recent in 1990) were due to increase in skills in terms of educational attainments (concentrated particularly in the masters degree level). Comparatively, the other immigrants witnessed only a miniscule increase in educational attainments and earnings, with the result that the income and educational attainment differences between them increased. The "recent" Indian-born immigrants in 1990 earned 28 percent more than the other foreign-born "recent" immigrants of the same period. The same increased to 73 percent for the "recent" ones in 2000.

Table 3.3.6:

Income Differential of the "Recent" Immigrants and Native-born in the U.S.; 1990 and 2000
(In 2001 U.S. Dollars)

Category	Census Years	1990	2000
Native-born		20,293	23,126
"Recent" Indian-born Immigrants		13,780	19,673
"Recent" Foreign-born Immigrants		10,749	11,374
Income Differential of the "Recent" Indian-born immigrants and Native-born		-32 %	-15 %
Income Differential of the "Recent" Foreign-born Immigrants and Native-born		-47 %	-51 %

Source: compiled from Table 3.3.3 and Table 3.3.5

Table 3.3.6 shows the income differential of the “recent” (represents the immigrants of the past 10 years from the date of survey) immigrants and natives in the U.S. It shows that the “Recent” Indian-born immigrants in 1990 earned 32 percent less than the native-born, whereas the “recent” Indian-born immigrants in 2000 earned only 15 percent less than the native-born. Thus, Indian-born immigrants of the 1990s will take lesser time to surpass the native-born income than that of the Indian-born immigrants of the 1980s. This assumption can be made because the total Indian-born in 2000 earned nearly 30 percent more than the native-born (Table 3.3.4). Moreover, it is important to mention that 33 percent Indian-born immigrants of the 1990s (“recent” in 2000) earned more than twice of the native-born median income already in 2000.

On the other hand the other foreign-born “recent” immigrants in 1990 earned 47 percent less than the native-born income, whereas in 2000 the “recent” ones earned 51 percent less than the native-born. Thus, it follows that the income differential between the “recent” foreign-born immigrants and the native-born increased in 2000 compared to 1990. Whereas the same for the “recent” Indian-born immigrants and native-born declined in 2000 compared to 1990.

These findings on the other hand are in contrast to the earlier findings, which claim that the recent immigrants in 1990 and 1980 are less skilled than the earlier decade immigrants especially of those who arrived before 1970 (Borjas 1994, Schoeni 1997). Khadria (1999) also notes that though the Indian immigrants always have represented higher educational and higher earning cohorts compared to the other immigrants, there has been a decline in the skill quality of the post-1975 Indian immigrants (57 percent were having college degrees, 83 percent high school degree and 9 percent with no high school education) compared to the pre-1975 immigrants (with 70 percent college degree, 91 percent high school graduate degree and 4 percent with no high school education). He further adds, “ The radical shift to lower incomes of all immigrants by 1988 actually got reversed after 1989 when more college graduates and people with advanced degrees were allowed entry during 1990-94. Indian immigrants could be said to have played a major role in this reversal by virtue of there being a large number of knowledge workers amidst them.” (P-99).

This ensures that though there was a decline in the skills of the post 1970 immigrants, our findings confirm that the immigrant of 1990s have higher skills and higher earning power than the immigrants of the 1980s. The difference is larger in case of Indian immigrants. However, the income differentials of the native-born and other foreign-born have increased in the 1990s compared to the 1980s (compared in Table 3.3.6) because the native-born have experienced higher rate in the increase in skill levels and earnings compared to the other foreign-born during this period. On the other hand, the income differential between native-born and other foreign-born has declined considerably.

Conclusion

It follows from the what we have discussed in this chapter that the foreign-born population in the U.S. is not homogeneous in terms of the population distribution by country of origin, age, education and earning profiles. It is found that the Asians are the best-educated population in the U.S. (with 84 percent of its population being high school graduates in 2000) who earned much higher incomes than the total foreign-born average. Asians were second to the Europeans with a difference of only \$3,000 (see Table ^{3.1.3}~~3.3~~), despite their much lower median age compared to the Europeans. If age were controlled then Asians would show significantly higher earnings than the Europeans average.

Similarly, Asian Indians are a dominant group possessing higher human capital compared to the other Asians. In 1990, 57 percent of the Asian Indians possessing college degree were significantly higher compared to the total Asian average as well as other Asian groups by country of origin. Indians were found having better fluency in English and in larger proportions amongst professionals, technicians, executive and managerial occupations. Their percapita income was also at much higher level than the total Asian average and second after Japanese with a difference of only \$1,600 in 1990. However, Japanese were having higher median age compared to the Asian Indians.

A comparison of the Indian-born, native-born and other foreign-born from 1990 to 2001 depicts that the Indians are younger than the foreign-born, but are almost similar with the native-born Americans. The Indian-born is the most dominant in educational attainment the 78 percent of Indians possessed bachelor's degree or higher compared to

28 percent native-born and 26 percent foreign-born in 2001. The income differentials between the Indian-born and native-born, Indian-born and other foreign-born, and native-born and other foreign-born have increased considerably in the nineties from the year 1990. The highest income differentials have been found in the year 1999 for the Indian-born and native-born, and Indian-born and other foreign-born 39 percent and 114 percent respectively. However, after 1999 it declined to 18 and 75 percent respectively by 2001. The income differential between the native-born and other foreign-born was found highest at 56 percent in the year 1997, but after that it is also declined to 49 percent by 2001.

The comparison of the earnings between the immigrants of the nineties (recent in 2000 CPS) and the immigrants of the eighties (recent in 1990 decennial census) in 2001 U.S. dollars found that higher median earnings for the immigrant of the nineties in 2000 than the immigrants of the eighties in 1990. This is so for both the other foreign-born immigrants and the Indian-born immigrants to the U.S. However, the differences are found to be much higher in case of the Indian-born immigrants. Thus, it would mean that the immigrants of the nineties possessed higher human capital compared to the immigrants of the eighties.

Thus, the above discussion confirms the earlier findings of Borjas and others and concludes that the immigrants of 1970s and 1980s were less skilled compared to the earlier immigrants i.e. those entered before 1970. But the trend has been reversed in the 1990s with the immigrants of the 1990s having higher educational attainments and thus also higher median earnings despite being younger compared to the immigrants of the 1980s. This change has been noticed to be greater amongst the Indian-born immigrants, which in turn shows higher differences with the native-born and other foreign-born. However, the native-born had higher rate in the increase in educational attainments and earnings compared to the other foreign-born, which resulted to widen the gap between these two groups. This finding is inconsistent with the earlier finding, which says that the “recent” immigrants earn at much lower level than the natives’ income compared to the earlier immigrants did. But, the reverse is true for the Indian-born immigrants, because the gap for the “recent” Indian immigrants and natives’ income has reduced considerably compared to the income differences of their earlier immigrants (immigrants of eighties) and natives.

Chapter 4

Socio-Economic Profiles and the Motivational Factors of Migrants: A Case Study of the Returnee Professionals in Bangalore

A case study of the returnee professionals in Bangalore was broadly designed to achieve the following two objectives, first, to enquire the age, education and the earning profile of the return migrants (both in the host country as well as in Bangalore after their return). A comparison is also made about the age, education and earning profiles between the return migrant respondents and the Indians in the U.S., in order to make an attempt to understand their earning potentials of the Asian-Indians (Indians in the U.S.) in the Indian labour market. Second, to collect information on the motivational factors of the returnees' out-migration and return migration, so as to highlight some points for the policy.

The selection of Bangalore for the study of return migration is based on the popular perception that in the fourth wave of migration, starting from the early nineties, the migration of software professionals to the greener pastures emerged as dominant phenomenon of migration. It is believed that the city Bangalore is in the process of developing as a gateway to new global frontiers and harbinger of a new global labour force. A survey undertaken by the National Association of Software and Service Companies (NASSCOM, 1995) covering the head-quarters of top 200 software companies in India found that the highest number of companies were located in Bombay (68 companies) followed by 56 in Bangalore and 30 in Delhi. The remaining one-quarter of the companies was distributed among Hyderabad, Madras, Calcutta and Pune. Besides, Bangalore becoming a corridor for migration is evident from the fact that a Commission on Graduates of Foreign Nursing Schools (CGFNS) Test Centre was opened in September 2001 in Bangalore, the first such test centre in India, with the idea of better coordinating the out-migration of nurses (HT, 16 Feb., 2003).

For conducting the field survey, a two-step process was adopted. As a first step a few professionals were contacted by e-mail and telephone, and then in a manner of *snowball collection* others were identified. At the second stage the willing respondents were interviewed in the month of December 2002. While approaching or contacting the respondent return migrants in Bangalore, however, care was taken to make the sample

more representative by covering diverse types of software companies. Keeping the objectives in mind an interview schedule was prepared to interview the willing respondents personally.¹ The interview was also tape-recorded that helped for the in-depth analysis later. The study has been discussed in four sections. Section 1 discusses the sample distribution, countries of sojourn, age, education and economic profiles of the return-migrants. Section 2 discusses the motivational and enticing factors of out-migration and return-migration. Section 3 discusses the qualitative observation by the respondents about the difference they experienced in India and abroad as their perception. Section four carries the discussion and conclusion of the chapter.

4.1. Distribution of the Sample by, Countries of Sojourn, Age, Education and Economic Profile of the Return Migrants

Table 4.1.1 provides data on three general characteristics of the sample population such as gender, marital status and place of birth. Out of the 45 respondents interviewed, 39 were male and 6 female, constituting 87 percent and 13 percent respectively, 35 married and 10 unmarried with 77 and 22 percent respectively. All were Indian born (42 out of 45) except one born abroad, two others had not reported the information. Further bifurcation of the 43 Indian-born into born-in-Karnataka and born-in-other-states of India resulted in 21 respondents each.

Table 4.1.1:
Distribution of the Sample by Gender, Marital Status and Place of Birth

Gender			Marital status			Place of Birth				
Male	Female	Total	Married	Un-married	Total	India		Abroad	Not Reported	Total
						Karnataka	Other States			
39	6	45	35	10	45	21	21	1	2	45
(86.67)	(13.33)	(100.0)	(77.78)	(22.22)	(100.0)	(46.67)	(46.67)	(2.22)	(4.44)	(100.0)

Note: Figures in bracket represent percentage.

¹A common Interview schedule was prepared with a group of three of my colleagues for use in our respective M.phil/Ph.D studies in the same field of migration, with focus on different dimensions. We have also undertaken the field study collectively.

Table 4.1.2:**Distribution of the Returnee Respondents by Countries of Sojourn**

Name of Destination Country	U S A	U K	Germany	France	Canada	Switzerland	Hong Kong	Belgium	Malaysia	Ghana	Total
No. of Respondent Return Migrants	36 (80)	7 (16)	4 (8)	3 (6)	1 (2)	1 (2)	1 (2)	1 (2)	1 (2)	1 (2)	56

Note: Figures in bracket represent percentage to the total sample population (i.e., 45)

Table 4.1.2 shows the distribution of returnee respondents by their country or countries of sojourn. It shows that 36 respondents representing 80 percent of the sample returned from U.S., 7 (16 percent) from U.K., 4 (8 percent) from Germany, 3 (6 percent) from France and 1 (2 percent) each from Canada, Switzerland, Hong Kong, Belgium, Malaysia and Ghana. However, it has to be noted that some of the respondents stayed in more than one country, the reason for which the total frequencies added up to more than the Sample population. This in turn indicates that the migration of some of these professionals is more of circulatory nature.

Table 4.1.3:**Age Profile of the Sample**

Age Group	20-25	25-30	30-35	35-40	40-45	45-50	Total	Mean	SD
Sample Size	1 (2.22)	14 (31.11)	16 (35.56)	8 (17.78)	5 (11.11)	1 (2.22)	45 (100.00)	33.05 Years	4.08

Note: Figures in bracket represent percentage.

Table 4.1.3 shows the age profile of the sample. The median age of the sample is found to be 33 years with a standard deviation of 4.08. Two-third of the sample (i.e. 30 out of 45) falls in the age group of 25-35 years. Out of the remaining one-third, 13 were in the age group of 35-45, and one each in the age group of 20-25 and 45-50 respectively.

Table 4.1.4:**Distribution of Returnee Respondents by Length of Stay Abroad**

No. of Years of Stay Abroad	0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16	Total	Mean	S.D
No. of Respondents	17 (37.8)	6 (13.3)	10 (22.2)	4 (8.9)	3 (6.7)	1 (2.2)	1 (2.2)	3 (6.7)	45 (100.0)	4.64 Years	1.25

Note: Figures in bracket represent percentage.

Table 4.1.4 shows that the respondents' mean years of stay abroad is 4.6 years with a standard deviation of 1.25. The table reveals that more than one-third (i.e. 38 percent) of the returnee respondents had gone overseas for a very short period of time i.e. less than two years. This temporary (short duration) migration may be explained by the fact that majority (23 out of 45, Table 4.2.2) of the return migrants represented by the sample had gone abroad on project assignments entrusted to them by their employees in Bangalore. In addition, more than half of the sample (i.e., 51 percent) had stayed abroad for a period of 2-10 years, whereas only 11 percent of the sampled stayed abroad for a longer period of 10-16 years. This is important for the fact that the longer the period the migrant stays abroad, he is more likely to become the permanent resident of the host country. Table 4.1.5 below shows the working period of the respondents in Bangalore after return from abroad. It shows an average of 4 years (standard deviation of 0.3) of work experience in Bangalore after return. The distribution of the sample across the class intervals of the working period shows, for as many as 19 respondents, that it has been only two years or less since they have returned. Twenty respondents spent their time in Bangalore for some 2-8 years, and only 6 respondents have stayed for a longer period of 8-12 years. Thus, most of the respondents are the recent returnees.

Table: 4.1.5**Profile of the Returnee Respondents: Working period in Bangalore**

Working Period (in years)	0-2	2-4	4-6	6-8	8-10	10-12	Total	Mean	S.D
No. of Respondents	19 (42.22)	6 (13.33)	8 (17.78)	6 (13.33)	4 (8.89)	2 (4.44)	45 (100.00)	3.93 years	0.3

Note: Figures in bracket represent percentage.

Table 4.1.6:**Distribution of Sample by Educational Qualification**

Educational Qualification	Graduation *	Post-Graduation (P.G) **	Research	Others (e.g. Diploma)	Total
Sample Size (Number of Respondents)	20 (44.44)	20 (44.44)	4 (8.89)	1 (2.22)	45 (100.0)

Note: Figures in bracket represent percentage.

*10+2+3 years of minimum schooling

**Includes two respondents, each with two who possess post-graduation degrees (P.G.) in separate disciplines.

Table 4.1.6 shows the educational qualification of the respondents by their highest degree. It shows, out of 45 respondents, 20 (44 percent) possessing the graduate degree, another 20 (44 percent) post graduate degree, 4 (9 percent) Ph.D and one (2 percent) Diploma. Table 4.1.7 provides additional information on the educational attainments of the respondents by their source of education, i.e., from which place and institution the degree was received. It shows that out of 45 respondents 16 received their graduation degree from the state of Karnataka, 22 from other states in India and the lone foreign-born Indian receiving his graduation degree from abroad. Information on 6 other graduation degrees is not reported. Out of the 24 postgraduate degrees, only 3 received from the state Karnataka, 10 from other states, 5 from abroad and 6 others did not report the information. Amongst the 4 Ph.Ds, only one is awarded the degree from Karnataka, and all the other three are awarded from abroad. One diploma holder received his qualification in "other-states" in India.

The second most important information available in Table 4.1.7 is the type of institution from which the degree was received. The institutions are placed under three categories, first category includes IITs, IIMs, and IISc, second, includes Regional Engineering colleges (RECs), and in third, all other institutions including Universities colleges. It is seen that only 2 graduates, 6 postgraduates and one research degree awarded from IITs, IIMs and IISc. It is striking to find from an estimation by Sukhatme(1994) that 31 percent of B.Tech graduates each year migrated and subsequently settled down abroad permanently from IIT Bombay alone. From RECs 9 graduate degrees and one postgraduate degree were received. Where-as from the third category, which includes Universities and colleges, 24 graduate degrees, 6 postgraduate degrees and one diploma were received. The total of unreported on this information were

for 10 graduates and 11 postgraduate degrees. The fellowships and scholarships were received for 9 graduate degrees, 6 postgraduate degrees and one Ph.D from India, and 5 postgraduate degrees and 3 Ph.D degrees received from the foreign sources. This shows that all those respondents educated abroad received foreign fellowships and all those who studied Ph.D received fellowships. From this it can be interpreted that students' migration is based more on financial incentives like fellowships, though there has been strong desire in every student to go for studies abroad. The reason for the low representation of Ph.D holders in our sample is because higher education like Ph.D in engineering involves high opportunity costs, so without fellowships one might not prefer to pursue higher studies after their graduation or post graduation in engineering.

Table 4.1.7:
Profile of Educational Attainment: Country, State, Institution and Fellowship

Sample Characteristics			Sample Size				
			Graduation	P.G.	Research	Diploma	Total
Country/ State of Study	India	Karnataka	16	3	1	-	20
		Other states	22	10	-	1	33
	Abroad		1	5	3	-	9
	Total		39*	18*	4	1	62
Institutions (Indian) of Study.	IITs, IIMS, IISc.		2	6	1	-	9
	Regional Colleges of Engineering		9	1	-	-	10
	Other Institutions (e.g. Universities, Colleges)		24	6	-	1	31
	Total		35**	13***	1	1	50
Fellowship/ Scholarships	Indian		9	6	1	-	16
	Foreign		-	5	3	-	8
	Total		9	11	4	-	24

Note: * 6 respondents did not report the information.
 ** 10 respondents did not report the information.
 *** 11 respondents did not report the information.

Table 4.1.8:
Earning Profile of the Returnee Respondents Overseas

Annual Emoluments (in \$000')	0-20	20-40	40-60	60-80	80-100	100-120	Total	Mean	S.D
No of Respondents	4 (9.5)	7 (16.6)	15 (35.7)	8 (19.0)	7 (16.6)	1 (2.3)	42* (100)	54.76 (\$000')	1.58

Note: Figures in bracket represent percentage.

* Out of 45 Sample population 3 denied responding on this information.

Table 4.1.9:
Earning Profile of the Returnee Respondents in Bangalore

Earnings (in Rs. Millions)	0- 0.2	0.2-0.4	0.4-0.6	0.6-0.8	0.8-1	1-1.2	1.2-1.4	1.4-1.6	1.6-1.8	1.8-2.0	Total	Mean	S.D
No. of Respondents	5 (12.1)	12 (29.2)	12 (29.2)	3 (7.3)	5 (12.1)	1 (2.4)	1 (2.4)	1 (2.4)	0 (0.0)	1 (2.4)	41* (100)	0.548 Million	1.23

Note: Figures in bracket represent percentage.

* 4 out of 45 respondents denied responding this column.

Table 4.1.8 shows the overseas earning profile of the return migrants before they returned to Bangalore. It reveals that the mean annual earnings of the returnees was 55 thousand dollars with a standard deviation of 1.58. The distribution of sample shows that 16 out of 42, i.e. 38 percent were earning in between 60,000-120,000 dollars, whereas 11 out of 42, i.e. 26 percent earned less than \$40,000 dollars. On the other hand, Table 4.1.9 shows the earning profile of the respondent return migrants in Bangalore after their return. Their mean earning per annum was Rs. 0.55 million with a standard deviation of 1.23. The distribution of the sample in the class interval shows that 17 out of 41, i.e. 41 percent of the sample earned below Rs. 0.4 million and another 20 comprising 49 percent of the sample earned in between Rs. 0.4 million to Rs. 1 million, and 10 percent of the sample earned more than Rs 1 million to up to Rs.2 million.

Table 4.1.10:

Qualitative Comparison by the Respondents' of their Income at Bangalore and Abroad

Current income as compared to earlier income	Number of respondents
(a) Much lower than before	19 (43.22)
(b) Lower than before	10 (22.22)
(c) Not much change	8 (17.78)
(d) Higher than before	5 (11.11)
(e) Much higher than before	2 (04.44)
(f) Did not respond	1 (02.22)
Total	45 (100.0)

Note: Figures in bracket represent percentage.

In order to compare the respondents' earnings abroad and while in Bangalore after their return, conversion of the earnings into a common currency revealed that the returnee respondents in Bangalore were earning one-fifth of their income abroad in nominal terms. The respondents revealed (shown in Table 4.1.10) that 29 out of 45, 65 percent were earning either lower or much lower than before, 8 comprising 18 percent of the sample were earning more or less the same, and 7 comprising 15 percent were earning either higher or much higher than what they had earned while working abroad.

Table 4.1.11:

Investment in Bangalore out of the Money saved Abroad

Investment in Bangalore (in millions)	0-0.5	0.5-1	1-1.5	1.5 and above	Total	Mean	S.D.
Number of respondents	12 (36.3)	10 (30.3)	8 (24.2)	3 (9.0)	33* (100)	0.78 million	2.31

Note: Figures in bracket represent percentage.

Note: * 12 out of 45 respondents did not report, out of which one was a student during the whole period of his residency abroad.

Table 4.1.11 shows the investment in Bangalore out of the money saved abroad by the returnee respondents. Out of the 45 respondents 12 did not report. Of those 33 respondents who reported, the mean investment was found to be 7.8 lakhs with a standard deviation of 2.31. The distribution shows that 22 out of 33 constituting 67 percent of returnees invested below 0.1 million, another 24 percent (8 out of 33) invested

in between 1 to 1.5 million and only 9 percent (3 out of 33) invested above 1.5 million. Of the 12 other respondents who declined responding to this question, all excepting one who was a student for the whole period of his residency abroad are expected to have been in the higher income brackets and accumulated higher amount of capital, because all of them had long periods of residency abroad. Thus, it is a hunch that if they had revealed their accumulated money and investment/expenditures then the average investment would have appeared much higher than what was found. Besides, 47 percent (21 out of 45) in the sample had gone abroad for a very short period of time, for less than two years that limited their scope to accumulate sufficiently, is also another factor in pulling down the average investment level.

Table 4.1.12:

Profile of Return Migrants: Major Investment/Expenditure in Bangalore.

Expenditure/Investment in Bangalore	Number of Respondent
1. Housing	25 (55.56)
2. Durable consumption goods	20 (44.44)
3. Other consumption goods	7 (15.56)
4. Support to other family members	14 (31.11)
5. Investment on Business	5 (11.11)
6. Investment on Stock Market	3 (06.67)
Total No. of Respondents	45 (100.0)

Note: Figures in bracket represent percentage.

Table 4.1.12 shows in what way they invested/spent their accumulated capital. Majority of the respondents 25 and 20 out of 45 revealed that they had spent on housing and durable goods respectively, 14 respondents also revealed to have helped their other family members' spending on education etc., while a few, such as 5 respondents revealed to have invested in business, and 3 others reported to have invested in the stock markets.

Table 4.1.13:

Important Gains from Abroad that Helped Respondents, Working in Bangalore

Nature of Gains	No. of Respondent
Knowledge and skills gained overseas	37 (82.22)
Work experience overseas	30 (66.67)
Network established overseas	9 (20.00)
Capital accumulated overseas	3 (6.67)
Total number of respondents	45 (100)

Note: Figures in bracket represent percentage.

Table 4.1.13 summarises the important gains of the return migrants from abroad that helped them to establish their position in Bangalore. There are four types of gains on which the information was collected. They are the Knowledge and skills, work experience, networks established, and capital accumulated overseas. Majority of the respondents, i.e. 37 out of 45 respondents have admitted that the knowledge and skills gained overseas and 30 respondents revealed that the work experience overseas helped them to a great extent while working in Bangalore. When they were asked in what way they could explain these gains, they replied that they could deal their foreign clients in a better way than earlier (before out-migration). Their superiority at work was well recognised, is evident from the fact that their employers often asked them for suggestions on important matters in business, and consulted them before making any important decisions. Whereas 9 others said networks established overseas have also helped them in expanding the business at Bangalore, and only three have accredited to the capital accumulated abroad their present work/business at Bangalore.

Thus, it is found that all the four types of gains have helped them to establish their position at Bangalore. The larger gains to the larger number of returnees however, came from the knowledge, skills and work experience gained abroad, whereas the gains were limited in the form of networks established and capital accumulated overseas, which have helped only a few returnees. This is because of the presence of temporary (short-term) migrants in higher proportion in our sample, who hardly got sufficient time to establish networks or to accumulate higher amount of capital. But the unmeasurable

gains from their migrations was the transformation of knowledge, as their migration was more of circulatory type since they keep on traveling different countries very often. The gains through networks and capital were largely from those who are the long-term migrants.

4.2. Motivational Factors of Migration

Table 4.2.1:
Motivation/Inspiration for Emigration

Source of Inspiration	Frequency
1. Family	8
2. Friends	7
3. Relations	1
4. Migrants themselves	17
5. Employer	19
Total	45*

Note: * The frequencies would add up to more than this number of respondents because some respondents chose more than one variable of motivation.

Table 4.2.1 makes clear that employer has been the most important motivator for out migration of professionals from Bangalore. As 19 respondents said that their employer has been the motivator for them to go on some project assignment for lucrative gains, strangely preceding the self motivating factor of the respondent themselves to experience work and life in the developed world, which ranked second. The other factors such as family, friends and relatives appeared the least importance for most of the respondents. Family, friends and relatives stood as the important inspiring/motivating factors only for 8, 7 and 1 respondent respectively.

Table 4.2.2:
Out-migration: Purpose of Going Abroad

S.N.	Purpose of Out-migration	Number of Respondents
1.	For higher studies	13
2.	To get employment	5
3.	To gain professional experience	8
4.	To settle down in the host country	0
5.	For professional assignment i.e., project	23
6.	To join family	1
7.	For business purpose	1
	Total No. of respondents	45

Table 4.2.3:
Out-migration: By Type of Visa

Type of visa	Tourist	Student	Employment	Business	Diplomatic	Total
No. of Respondents	1 (2.2)	13 (29.0)	23 (51.1)	7 (15.6)	1 (2.2)	45 (100.0)

Note: Figures in bracket represent percentage.

On their purpose of going abroad 23 out of the 45 respondents, constituting 51 percent revealed company project assignments as the purpose of their migration. 13 other respondents had gone abroad for the purpose of studies, 8 revealed to be for gaining professional experience in the better infrastructural and working conditions abroad, 5 to get employment, and one each to join family and for business respectively. Strikingly, all the respondents emphatically replied in the negative when asked whether they wanted to settle down abroad permanently. This highlighted their prior determination to return. A close resemblance of the purpose of out migration is also found to the type of visa on which the migrant had gone abroad. Table 4.2.3 reflects that 23 out of 45 had gone on employment visa, 13 on student visa, 7 on business visa and one each on tourist and diplomatic² visa.

² The person had emigrated on diplomatic visa to join her parents, one of whom was an employee in the Indian embassy in the U.S.

Table 4.2.4:
Out migration of Return Migrants: Motivational factors

Sl.No	Factors	Weights according to preference order						
		Selection Response				Rejection Response		
		1	2	3	1+2+3	4	5	4+5
1	Better employment opportunities in the host country	3	18	5	26	6	10	16
2	Expectation of better business opportunities in the host country	4	10	4	18	10	14	24
3	Conducive immigration policy of the host country	2	6	5	13	12	17	29
4	Relatives in the host country	1	2	1	4	9	29	38
5	Better income prospects in the host country	13	16	5	34	3	5	8
6	Better quality of life in the host country	3	26	3	32	4	6	10
7	To gain experience that would later be highly valued in India	24	11	3	38	3	1	4
8	Higher education	14	3	1	18	3	21	24
9	Bleak employment prospects in India	4	4	3	11	6	25	31

Note: * Weight 1 is for 'extremely important', weight 2 is for 'moderately important', weight 3 is for 'less important', weight 4 is for 'not important', and weight 5 is for 'not at all important'.

For identifying the push and pull factors behind the out migration of returned professionals. The respondents were given nine factors to weigh them according to their importance while making decisions to emigrate. Weights were given to each factor according to the following pattern: weight 1 for factor(s) that played an extremely important role in out-migration of the respondent, weight 2 for the factor(s) playing moderately important role, and weight 3 for the factor(s) considered important but not having enough intensity/capacity to make substantial alteration in the decision to go abroad. Weights 4 and 5 have been given to the respondents not to leave out the unimportant factors from the list. Weight 4 is assigned for those factor(s) which, the respondent considered as not important, "and weight 5 for the factor(s) considered not at all important" in the decision to emigrate.

Accordingly, the first three weights are for “selection response” i.e. those factors with largest frequency by the respondents were to be considered the most important factors responsible for the respondents’ out-migration. The factors that are weighed under the last two weights i.e. weight 4 and 5 with the largest frequency are considered to be rejected by the respondents in influencing or motivating their out migration. In this way it was found that the largest number of respondents (i.e. 38 respondents constituting 84 percent of the total sample) expressed that the most important factor in their decision about going abroad was to ‘gain experience that would later be highly valued in India’. The second important factor found was the ‘better income prospects in the host country’ as 34 respondents constituting 76 percent stated to have been lured by this factor. The third important pull factor for out migration has been ‘better quality of life in the host country’ as 71 percent respondents found it quite important in their decision for emigration. On the other hand the highest rejection option was found with 84 percent (38 respondents) of the sample that considered ‘relatives in the host country’ was not a factor that influenced their decision to emigrate. The next two important factors found in this regard are ‘Bleak employment prospects in India’ and ‘Conducive immigration policies of the host country’ with 69 and 64 percent respondents respectively.

Table 4.2.5:
Return Migration of Professionals: Catalytic Agents

Catalytic Agents	Family	Friends	Relatives	Self	Employer	Total No. of respondents.
No. of Respondents	18	2	1	29	9	45
	(40.00)	(4.44)	(2.22)	(64.44)	(20.00)	(100.00)

Note: Figures in bracket represent percentage.

Table 4.2.5 depicts the catalytic agents for the return-migration of professionals. It was natural, the respondents themselves were found to have been the most important motivator in their return migration. As the table shows, 29 respondents constituting 64 percent of the sample returned at their own initiative. The second most important factor found was ‘family’, as 18 respondents (40 percent) of the sample revealed their family has been the most important motivating factor in bringing them back home. The third important factor with noticeable proportion, i.e. 20 percent insisted upon the role of their employers to bring them back to the country.

Table 4.2.6:**Return Migration of Professionals to India: Motivational factors**

Factors		1	2	3	Total of 1,2,3,	4	5	Total of 4&5	Grand total
1.	Recession in the host country	1	3	2	6 (13.33)	5	34	39	45
2.	Increasing unemployment in the host country	2	3	1	6 (13.33)	7	32	39	45
3.	Negative attitude of the employers towards immigrant employees	1	3	5	9 (20.00)	4	32	36	45
4.	Language problems in the host country	0	2	3	5 (11.11)	3	37	40	45
5.	Ethnic/racial problems	1	4	4	9 (20.00)	3	33	36	45
6.	Rigid immigration and settlement policies	1	1	2	4 (08.88)	2	39	41	45
7.	Difficulties in getting good/appropriate opportunities	0	1	2	3 (06.67)	7	35	42	45
8.	Expectation of better business/entrepreneurial opportunities	4	8	3	15 (33.33)	4	26	30	45
9.	Increasing employment opportunity in India in the concerned Sector	6	13	4	23 (51.11)	4	18	22	45
10.	Recognition of India as major IT power in the world	8	14	2	24 (53.33)	2	19	21	45
11.	Higher real earnings	3	13	2	18 (40.00)	4	23	27	45
12.	Family/ personal reasons	27			27 (60.00)				

Note: * Weight 1 is for 'extremely important', weight 2 is for 'moderately important', weight 3 is for 'less important', weight 4 is for 'not important', and weight 5 is for 'not at all important'.

The same method of weights is followed in Table 4.2.6 as in the Table 4.2.5, to identify the most important factors that influenced or motivated the respondents to return to India. It was found (shown in Table 4.2.6) that 'family' has been the most important motivating factor, as 27 respondents (60 percent of the sample) have given it the first weightage. The second and third important factors found were 'Recognition of India as a major emerging IT power in the world' and the consequent 'increase in employment opportunities in India in the concerned sector choosing 53 and 51 percent of the sample respectively. In contrast, the three most important rejection options found were, 'difficulties in getting appropriate opportunities in the host country', 'rigid immigration and settlement policies of the host country' and 'language problems in the host country with 93, 91 and 89 percent respondents respectively.

Table 4.2.7:

Bangalore as a Corridor for Return Migration: The Enticing Factors by Weights

Enticing Factors \ Weights*	1	2	3	Total of 1,2&3	4	5	Total of 4&5	Grand Total
1. Better infrastructure compared to other major cities of India	13	20	3	36	2	7	9	45
2. Availability of experts in the concerned sector	8	17	6	31	5	9	14	45
3. Abundant employment opportunities	16	16	4	36	4	5	9	45
4. Better remuneration packages	4	13	14	31	7	7	14	45
5. Better educational institutions for children	6	13	4	23	4	18	22	45
6. Scope for self employment	9	12	4	25	4	16	20	45
7. Socio-cultural and language reasons	13	9	5	27	9	9	18	45
8. Easy access to communication facilities	2	16	8	26	8	11	19	45
9. Satisfactory health facilities	4	15	10	29	8	8	16	45
10. Emerging state government support	6	8	13	27	5	13	18	45
11. Family in Bangalore	17	1	-	18	-	-	-	45
12. Climate in Bangalore.	13	2	-	15	-	-	-	45

Note: * Weight 1 is for 'extremely important', weight 2 is for 'moderately important', weight 3 is for 'less important', weight 4 is for 'not important', and weight 5 is for 'not at all important'.

Table 4.2.7 reflects the enticing factors in making Bangalore their obvious city of choice for return. It was found that 36 respondents (80 percent) thought Bangalore had 'abundant employment opportunities' and 'better infrastructure compared to other major cities in India', as the first two important factors. 31 respondents (69 percent) revealing the 'availability of experts in the concerned sector' and 'better remuneration packages' as the second two most important factors. The next most important factors shown by the table are 'satisfactory health facilities' with 64 percent, 'socio-cultural and language reasons' with 60 percent and 'emerging state government support' also with 60 percent. On the rejection option, however, no significant number of respondents were found to be choosing any as unimportant factor. For example the highest number respondents such as 22 (49 percent) considered the factor, 'the better educational institutions for the children'

as “not important” factor while deciding to stay/work at Bangalore, to them it was Delhi, which provides comparatively best education. In contrast, 23 respondents (51 percent) said this factor played an important role in their decision to stay in Bangalore. However, it has to be noted that there are two other factors which were not there in the list of the questionnaire but were identified by the respondents specifically as the most important determining factor(s) while choosing Bangalore as their place to stay/work after coming back from abroad. These are ‘family in Bangalore’ with 17 respondents, and ‘climate of Bangalore’ with 13 respondents respectively-revealed as the ‘extremely’ important factors that influenced their decision to stay/work in Bangalore. The total number of respondents considering these two factors as the most important are 18 and 15 respectively.

4.3. Qualitative observations by the respondents

When the respondents were asked to speak on their positive and negative feelings after coming back, most of them expressed their sense of elation being in back home with their family and friends around. Culture was another important aspect, for those saying that his being back home ~~ceased~~ ceased to feel alienated from people and culture, which they did in the western societies. A few said their decision to return was to keep their children away from the western cultures. For example a lady returnee responded, saying, “I did not want my children to grow in such (host country) atmosphere, it will be devastating for them especially when both of the parents are working.” A few of them also hinted at racial diatribes abroad, and several of them expressed their satisfaction over development of Bangalore as a cosmopolitan city with increasing employment opportunities almost in every emerging field. So, for them being in their country of birth was itself a positive gain^{of} their return as they started feeling themselves as an essential part of the progressive Indian social and economic systems. When asked where did they see India to be for the next generation, and whether the professionals of the new generation would receive the same benefits abroad as they received, the responses were not uniform. Though some of the respondents were confident in saying, “yes, they will receive the same benefits”, a few others said, “no, because of the dramatic change that have taken place in the world order after the September 11 terrorist attacks in the U.S.” A few others responded by giving a more dynamic reply, such as, in the words of one

respondent, "Well, they may not need to go abroad for the professional career and quality services; all will be available in India itself by that time."

On the negative aspects of their return, the respondents were sore about the government's apathy and procrastination in reacting to the issues, concerns and developments. Government's failure in curbing corruption especially in public offices, rigid bureaucratic controls and lack of infrastructural facilities are some of the severe problems for the business in India. In addition to these, heavy vehicular traffic, pollution and uncontrolled growth of population in the city are the growing problems. On the other hand, foregoing high quality of life, better roads and communications etc. abroad are some of the negative aspects of their return. However, they saw no reasons to stop coming on such grounds.

To the question whether they would re-emigrate if they got offers. 78 percent (35 respondents) expressed their desire to re-emigrate if they got lucrative offers. Their most preferred destinations were the U.S. (58 percent) followed by U.K., Australia, Canada and Singapore. Other preferred destinations such as France and Germany were also mentioned among the list of preferred destination countries. Whether they would settle down abroad permanently? 87 percent (39 returnees) of the sample replied firmly that they would not settle down abroad permanently. They expressed they would go only to gain monetarily and work experience abroad. They added that since they were receiving all world-class services/facilities at workplace in Bangalore, there was no point for looking chances to settle down abroad permanently. Two respondents were very clear in their reply that if they got favourable chances they would not rule out the possibility of settling down abroad even permanently. However, four other respondents expressed their inability to say anything at that moment in this regard.

When the respondents were asked about their participation in the development process of India through charitable works or donations for education and other social causes. 25 out of 45 responded to be a part of it contributing for the education of the poor children, environmental problems through several organizations such as Non Governmental Organisations (N.G.O.'s) etc. The rest replied that either they did not think of it or were considering it for the future. As regard the question on the

involvement with any kind of Diaspora Association, a majority replied negatively whereas a few revealed involvement with some Indian regional associations abroad.

Conclusion

Table 4.4.1 gives a comparative picture on the age, education and earning profiles of the Indian-born in the U.S. in 2001 and of the returnee respondents in Bangalore. The table reflects the superiority of the returnees in earnings and educational attainments though they have been similar in age compared to the Indian-born in the U.S. It shows that all the returnee respondents were having at least graduation degree,³ 53 percent were having the master's degree and 9 percent were having the PhDs, whereas among the Indians in the U.S., 78 percent were having at least graduation degree, 28 post-graduate and 4 percent Ph.D degrees. The table shows that the returnees earned much higher incomes compared to the Indian-born in the U.S. It depicts that the returnee professionals (mostly the IT) were found equal to the Indian-born in the higher income ladder in the U.S.

Table 4.4.1:

Age, Education and Earning Profiles of the Indian-born in the U.S. and the Returnee Respondents in Bangalore; 2001

Profiles Population	Median Income	Education (percent of the population)					Median Age
		<Graduation	Graduation	Post- Graduation	PhD	Profes- sional	
Profile of the Indian-born in the U.S. (U.S. Census data)*	\$28,121	22	78	28	4	6	33
Profile abroad of Returnee respondents in Bangalore**	\$53,330	0	100	53	9	2***	33

Note: *Cited in Desai (2002).

** Survey undertaken in the month of December 2002, ***Diploma.

³ This is because only the professionals were identified and interviewed.

A comparison of the returnees' income abroad with that of the U.S. natives' median income reveals that the returnee respondents earned 123 percent more than the natives' in the year 2001. These returnees on the other hand earned Rs. 0.55 million in the Indian labour market. A comparison of the incomes of the Indian-born in the U.S. with that of the U.S. natives (compared in Table 3.3.3) found that 37 percent of the Indian-born earned between more-than-100 percent and above-200 percent of the native-median-income in 2001. Thus, it is presumed that all the 37 percent Indian-born in the U.S. could earn at least Rs. 0.5 million in the Indian labour market if they returned home. The impact of more than 0.7 million (37 percent of the 1.7 million Indian-born population residing in the U.S. in 2000) population with an earning potential of more than Rs. 0.5 million and the resultant tax revenue to the economy will not be insignificant. As Desai (2002) has stated 1 million Indian-born population in the U.S. would constitute merely 0.1 percent of the India's one billion population but would account for 10 percent of India's national income.

The argument is not made to bring back all such potential Indian immigrants but to assess the losses faced by the nation in terms of the income foregone and loss in tax revenue. Any measures to retain such potential Indian professionals which our educational institutions have been producing each year and or to bring back some of the Indian-born professionals from abroad, the consequent results will be significantly noticeable in the development of the Indian economy.

Thus, the return migrant professionals have been found to be equal to those who belonged to the higher income strata of the Indian-born in the U.S. showing their superiority in educational attainment compared to the averages of the Indian-born in the U.S., but having similar median age. The returnees earned subsequently much lower (1/5th) in the Indian labour market (in Bangalore after return) than what they earned abroad. Their earnings in Bangalore were found at Rs. 0.55 million per annum on average. Having such potential productive Indian-born in the U.S. were found 37 percent of the total Indian-born population in the U.S., i.e. who could earn at least Rs. 0.5 million in the Indian labour market. Thus, the subsequent losses of income or the income foregone for losing such quality potential productive Indians to the U.S. will be much large.

On the profiles of the returnees' investments in Bangalore, the average investment level was found Rs. 0.78 million. It was found that not all the respondents could make adequate amounts of investment in Bangalore. It depended upon the duration of the stay abroad, as longer the migrant stayed abroad the higher amount he had accumulated and subsequently invested/spent in Bangalore, whereas the investment from the short-term migrants was minimal because they have not got enough time to accumulate higher amounts. The investments by a majority of the returnees were made largely on housing and durable consumption goods and also spent in supporting other family members. While a few returnees invested in business and stock markets. To summarise the gains from abroad, it was found that the larger gains have come from the knowledge, skills and work experience gained abroad to larger number of returnees, whereas the gains in the form of networks established and capital accumulated overseas were limited, which helped only a few returnees (those who have stayed for longer period in the host country).

On the motivational aspects of out-migration it was found that the migrants are lured by the work experience in a better working environment abroad something that would be valued highly in India when they came back, followed by the better income prospects and quality of life abroad. On the other hand, our findings also reveal that they did not consider themselves to have been forced out by any of the push factors like 'bleak employment prospects in India' or 'the lack of quality education in India.' With regard to the motivational factors of return migration, the family had been the most important factor in bringing back these emigrated Indian professionals. Recognition of India as a major IT power in the world and the increasing employment opportunities especially in the IT sector had prompted the IT professionals to fly back and establish their career in their country of their birth. The factors responsible for the selection of Bangalore as their obvious city of choice for return were, as revealed by the respondents, that Bangalore had abundant employment opportunities, better infrastructure compared to other major cities in India, availability of experts in the concerned sector (IT), better remuneration packages, satisfactory health facilities, socio-cultural and language reasons, and the emerging State-Government-support for the IT sector etc.

On the positive aspects of the return, the respondents felt cheerful in being united with their parents and the family, and becoming a part of the nation's socio-economic system. However, they were sore about the corruption in public life, rigid bureaucratic hassles, infrastructural bottlenecks, increasing pollution, etc. Though they were willing to emigrate once again on job assignments but most of them were not aiming at settling down abroad. The majority of them were participating in charitable works such as education of the poor and other social causes, and betterment of environment.

Chapter 5

Summary of the Findings and Concluding Remarks

At the outset the study looked into the interrelationship of the key terms of the study - Education, Earnings and Migration. The existing literature points out the positive correlation between education and earnings, education and migration, and migration and earnings. The literature on the earnings of the immigrants points out that the immigrants earn lower incomes compared to the natives, but gradually they assimilate faster and earn higher than the natives subsequently. Contrary to this, the recent findings examining the earnings of the post-1970 immigrants in the U.S. say that the recent immigrants are less skilled compared to the pre-1970 immigrants. Therefore, they earn much lower compared to the native incomes at their entry and are not likely to overtake even in their working lifetime.

This study examined the following questions: -

1. What happened to the earnings of the immigrants of the U.S. in the nineties?
2. How do the Indian immigrants earn compared to the other foreign-born and the U.S. natives?

Are they (Indians in the U.S.) earning equal to the other foreign-born to apply the above findings that the immigrants earn lower than the native incomes.

3. Are the immigrants of the nineties (both the Indian-born and the other foreign-born) are less skilled and earn lower compared to the immigrants of the eighties?

What happened to their earning differentials with the natives?

4. What could be the earnings of the Indians in the United States in the Indian labour market if they return? (Or) What are the subsequent losses or income foregone to the Indian economy?
5. What are the motivational factors that determine the contemporary flows of migration (both out-ward and return)?

Summary of the Findings

1. The Asians in the United States are the best-educated foreign-born population with 84 percent high school graduates in 2000 compared to the 67 percent of the total foreign-born average. Asians also earn much higher incomes than the total foreign-born average. Asians earn second to the Europeans in the U.S. with a

difference of only \$3000 per annum, despite their much lower median age compared to the Europeans.

2. Asian-Indians are the dominant group possessing higher human capital with significantly higher educational attainments, better fluency in English than any other Asian groups in the U.S. They also represent in larger proportions among the professionals, technicians, executive and managerial occupations. The percapita income of the Asian Indians are at much higher level compared to the Asian average and second after the Japanese with a difference of only \$1,600 but are much younger than the Japanese (with 29 and 36 years of median age respectively).
3. A comparison of the Indian-born, native-born, and other foreign-born for the years 1990, and 1994-2001 depicts that the Indian-born are younger than the foreign-born, but are almost similar aged compared to the native-born in the U.S. The Indian-born is the most dominant group in educational attainments, as 78 percent of the Indian-born possessed the bachelor's degree or higher compared to the 28 percent of the native-born and 26 percent of the foreign-born in 2001.
4. Indian-born were found to be earning much higher incomes compared to the other foreign-born and native-born. The income differential between the Indian-born vis-à-vis the other foreign-born and the native-born were found increased in the nineties considerably though they showed a fluctuating trend. The highest income differential between the Indian-born and the other foreign-born, and the Indian-born and native-born were found in the year 1999, at 114 percent and 39 percent respectively. However, these differences declined to 75 percent and 18 percent respectively by the year 2001. On the other hand, the native-born earned with a highest difference of 56 percent more than the other foreign-born in 1997. However, it also declined to 49 percent by 2001.
5. The Indian-born immigrants of the nineties ("recent" in 2000) are one year younger than the immigrants of the eighties ("recent" in 1990). Their respective median age stood at 30 years and 29 years respectively in 1990 and 2000. In contrast, the other foreign-born immigrants of the nineties are one year older than

the other foreign-born immigrants of the eighties. Their respective median age stood at 27 and 28 years respectively in 1990 and 2000.

6. The immigrants of the nineties (both the Indian-born and the other foreign-born) are more educated than their respective immigrants of the eighties. Among the Indian-born immigrants of the nineties, 78 percent were having at least bachelor's degree and 92 percent at least high school graduate degree compared to the 58 percent and 85 percent of the same respectively for the eighties Indian-born immigrants. Similarly, among the other foreign-born immigrants of the nineties 26 percent were having at least bachelor's degree and 66 percent at least high school graduate degree compared to 23 percent and 59 percent of the same respectively for the other foreign-born immigrants of the eighties.
7. The immigrants of the nineties earned much higher incomes compared to their own respective immigrants of the eighties in terms of the 2001 U.S. dollars. The Indian-born immigrants of the nineties in 2000 earned 43 percent more than the Indian-born immigrants of the eighties in 1990. Similarly, the other foreign-born immigrants of the nineties in 2000 earned 6 percent more than the other foreign-born immigrants of the eighties in 1990.
8. The income differentials between the "recent" other foreign-born immigrants and native-born increased from minus-47 percent in 1990 to minus-51 percent in 2000. In other words, the "recent" other foreign-born earned 47 percent and 51 percent less than the native incomes in 1990 and 2000 respectively. In contrast, the income differential between the "recent" Indian-born immigrants and native-born declined from minus-32 percent in 1990 to minus-15 percent in 2000, i.e. the "recent" Indian-born earned 32 percent and 15 percent less than the native incomes in 1999 and 2000 respectively.
9. Among the returnee respondent sample, all were having the bachelor's degree, 53 percent master's degree and 9 percent possessed Ph.D degree. Their median earnings abroad and in India were found at \$55,000 and Rs. 0.55 million respectively. Converting the incomes expressed in U.S. dollars into Indian rupees

by a multiplication^{of} 48 (\$1 = Rs. 48), it was found that in Bangalore the returnees earned roughly one-fifth of the incomes earned abroad.

10. A comparison of the returnees' education and earning profiles with that of the Asian-Indians in the United States found that 37 percent of the Asian-Indians were having the same skills and earnings compared to the returnees and thus were capable of earning at least Rs. 0.5 million in the Indian labour market if they returned.
11. The average investment level made by the returnees in Bangalore out of the money saved abroad was Rs. 0.78 million. The migrants who stayed abroad for longer period had accumulated larger amounts of savings and invested larger amounts in Bangalore compared to the migrants who stayed for a short period of time. Majority of the returnees invested on housing and consumer durables, and also on supporting their other family members' education etc. whereas a very few invested on business and stock markets.
12. Majority of the respondents revealed to have gained from the knowledge and skills, and work experience earned abroad in establishing their position in Bangalore, while a few attributed their present position and work in Bangalore to their networking and capital accumulated abroad.
13. The most important motivational factors of out-migration of the returnees were found to be, 'the work experience in a better working conditions abroad that would be later highly valued in India when they return' followed by, 'better income prospects' and 'quality of life' abroad. On the other hand, the findings say that they have not been forced by any of the push factors like 'bleak employment prospects in India' or 'the lack of quality education in India.'
14. On return migration front, amongst the motivational factors found important were 'family', which was the most important factor in bringing back these emigrated Indian professionals. This was followed by 'the recognition of India as a major IT

power in the world’, and ‘increasing employment opportunities especially in the IT sector’.

15. The factors responsible for the selection of Bangalore as their obvious choice after return were ‘Bangalore has the abundant employment opportunities’, ‘better infrastructures compared to the other major cities in India’, ‘availability of experts in the concerned sector (IT)’, ‘better remuneration packages’, ‘satisfactory health facilities’, ‘socio-cultural and language reasons’, and the emerging State Government support for the IT sector respectively.
16. On the positive and negative aspects of their return the returnee respondents revealed their high “feel good factor” being with their parents, family and also in being a part of the nations socio-economic system. However, they also felt stifled by the corruption in public life, rigid bureaucratic hassles, infrastructural bottlenecks, and pollution etc. that holds back the business in India. Though they were willing to emigrate again on fresh job assignments abroad, most of them were not inclined to settling down abroad permanently. A majority of them were associated with charitable works, like education of the poor, other social causes, and environment improvement etc.

Concluding Remarks

From the summary of our findings, it follows that the Asians in the U.S. possessed higher human capital in terms of the age, education and earnings by the year 2000 compared to the total foreign-born as well as the continent-wise groups of the foreign-born in the U.S. (except in terms of earnings, where Asians stood second after the Europeans, though with a small difference). Whereas the Indian-born (referred to as the Asian Indians) in 1990 possessed higher human capital compared to the total Asian-born in the U.S., and also to other Asian groups by their country of birth (except in earnings, Indians earned second highest incomes after the Japanese with a small difference).

Indian-born population in the U.S. possessed significantly higher educational attainments and earned much higher incomes compared to the other foreign-born and

native-born population in the U.S. In 2001 the median earnings of the total Indian-born population showed 75 percent more than the other foreign-born, and 18 percent more than the native-born median income. On the other hand, the native-born earned 49 percent more than the other foreign-born median income in the same year (2001).

An examination of the immigrants of the eighties (“recent” in 1990) and nineties (“recent” in 2000) for the years 1990 and 2000 respectively revealed that the immigrants of the nineties were more skilled than the immigrants of the eighties. This finding is contrary to the earlier findings, which examined the educational attainments of the pre-1970 immigrants and post-1970 immigrants and found that the post-1970s immigrants were less skilled compared to the pre-1970s immigrants. Thus, the finding of this study establishes a reversal of the earlier trend. However, further research may also examine and compare the skills of the immigrants of all times together and come out with a different finding by incorporating, say, the pre-1970 immigrants, immigrants of the seventies, eighties and nineties. This study also found that the immigrants of the nineties earned more incomes than the immigrants of the eighties, but the earning differentials of the other foreign-born immigrants with the native-born is higher for the nineties compared to the earning differentials of the immigrants of the eighties with the natives. This is exactly in conformity with the earlier findings that the recent immigrants earn much lower than the natives compared to the earlier immigrants at their entry. But the reason provided for this by the earlier studies is not supported by this study- that the recent immigrants (immigrants of the nineties) earn much lower than the natives compared to the earlier immigrants at their entry. This is not because the recent immigrants are less skilled compared to the earlier immigrants (as argued by the earlier studies) but because during this period i.e. in the nineties, the native-born experienced higher rates of increase in their skills (educational attainments) and earnings than the other foreign-born immigrants had.

All these findings, however, cannot be applied as it is to the Indian-born immigrants because the income differential between the recent Indian-born immigrants (immigrants of the nineties) and native-born has declined because the rate of increase in the skills and earnings among the Indian-born immigrants are much higher than that the native-born experienced during the period. Thus, it is presumed that the recent Indian-

born immigrants will take lesser time to surpass the earnings of the natives than the earlier Indian-born immigrants did. This presumption is supported by the fact that the total Indian-born in 2000 earned nearly 30 percent more than the native-born income (Table 3.3.4), and the 47 percent of the recent Indian-born immigrants (immigrants of the nineties) already earned either equal to or more than the native-born median income in the year 2000. However, further scope lies here to examine whether the Indian-born really could surpass the natives earnings, and if yes, how long they would take to do so. Also, one could examine whether the recent other foreign-born could never overtake the native-born earnings in their working lifetime owing to their much lower incomes compared to the native-born at their entry. For this however, time series data on earnings and educational attainments of immigrant cohorts of the various time periods is needed.

The study has also attempted, through the Bangalore case study, to roughly estimating the income foregone in India due to the physical presence of the skilled Indians in the U.S. It concludes that the returnee professionals who earned on the average Rs. 0.55 million in the Indian labour market after their return, were earning abroad 123 percent more than the U.S. native median income in 2000. Such potential Indian-born in the U.S. who earned at least more than 100 percent above the native-born median income were found to comprise 37 percent of the total Indian-born-population in the United States in 2001. Thus, it is conjectured that the loss of the 37 percent of the total 1.7 million Indian-born-population (Indians living in the U.S.) with an earning potential of at least Rs. 0.5 million in the Indian labour market, the consequent losses of income or the income foregone, and the resultant loss of the tax revenue to the national exchequer would be significantly large. There is scope for further research in estimating these losses of income due to the presence of large number of highly skilled Indians outside India.

It has been found from the case study that the returnees and the country of origin (India) have both gained largely from the return migration of the professionals. These gains have come in the form of knowledge and skills, work experience, networking and capital accumulated abroad. However, the larger gains to large number of the respondents have come in the form of knowledge and skills and work experience gained abroad. The short-term migrants brought gains to the country by their circulatory visits to

the country. The gains from the long-term migrants, however, came through the networks established and the capital accumulated abroad, but the income foregone to the nation in their case would be larger owing to their longer periods of stay abroad.

On the motivational factors of out-migration and return-migration of the returnees, the study concludes that the returnee respondents were lured out largely by the pull factors of better infrastructures, working conditions, better quality of life abroad, and better income prospects, which the migrants thought would help them gain recognition when they returned home. The push factors like bleak employment prospects in India or the lack of quality of education were, on the other hand, not at all found responsible for their out-migration. The 'IT boom in India, especially in Bangalore and the consequent recognition of India as a major IT power in the world', 'increasing employment opportunities especially in the IT sector' had helped the nation in getting back these professionals. Of course the 'family' is found to be the most important force in bringing them back home.

This study also supports the popular perception that Bangalore has been fast developing as a corridor for migration (both onward and return). As revealed by the respondents, Bangalore has been ranked high on employment opportunities, better infrastructures, availability of experts, better remuneration packages, satisfactory health facilities and the emerging state-government support for the IT sector compared to the other major cities in India. Moreover, the moderate 'climate' of Bangalore has also contributed in making Bangalore attractive to the returnees to come back to for setting up homes. Being with the parents and the larger family and the feeling of becoming a part of the nation's socio-economic system after their return home also played important roles in it. However, the corruption in public life, rigid bureaucratic hassles, infrastructural bottlenecks, and increasing environmental pollutions etc, which creates hassles for carrying out business in India have been the detracting factors.

These findings are important because these are the aspects that one should address while chalking out a suitable policy on migration but have not been explored so far. Before generalising these findings, for the whole India, however, confirmations of suitable hypotheses are required through further research by taking larger samples, in

various other parts of India, such as in cities like Bombay, Delhi, Madras, Hyderabad and Pune and so on, and also by extending the coverage to other professional groups like doctors, nurses, teachers etc.

Appendix

Questionnaire¹

On

The Return Migration of the skilled Professionals to Bangalore

The present questionnaire has been designed to seek the information on various aspects of the outward and return migration of the returnee professionals in Bangalore. The information sought will be used for our M.Phil/Ph.D academic research only. The approached returnees are requested to respond to each of the items in the questionnaire with due care and a sense of responsibility. The name and address of the informant will be kept fully confidential and the information provided however, will be used for the aforesaid purpose only.

¹ Prepared in association with Narender Thakur, Perveen Kumar, Geeta Verma, Sridhar Bhagavatula, Durgesh Rai and Kripabar Barua.

Date of Interview conducted _____

I. PERSONAL INFORMATION

1. Name of the Respondent: _____

2. Sex: Male Female

3. Date and Place of Birth: _____

4. Age: _____

5. Marital Status: Unmarried Married

6. Official Address (including telephone number, fax number, email address)

7. Educational Qualification (Graduation and above)

Degree/Diploma	Country/State	Name of the Institution	Year of Completion
Graduation			
Post Graduation			
Any other			

8. If you have got any scholarship /fellowship during your studies, please furnish the details in the following table

Name of the Fellowship & awarding Institution	Year of award	Course of Study	Period

II- INFORMATION ON OUT-MIGRATION

1. When did you move overseas? _____

2. In which country (ies) you have stayed/ lived/worked? _____

3. For how many years you have stayed overseas? _____

4. Who has inspired/motivated you to go abroad? Please tick the appropriate option(s).

- a) Family
- b) Friends in India/abroad
- c) Relatives
- d) Your teacher
- e) Senior colleague
- f) Yourself
- g) Career Counselor
- h) Any other (Please specify)_____

5. What was your purpose for going abroad? Please tick the appropriate option(s).

- a) For higher studies
- b) To get employment
- c) To gain professional experience
- d) For permanent settlement in the host country
- e) Project/Research assignments

6. On what kind of visa you have gone abroad? Please tick the appropriate option(s).

- a) Tourist
- b) Student
- c) Employment
- d) Any other (Please specify)_____

7. Which factors have helped you in decision making to go abroad?
Please give scales to the following options according to your preference order like:

Extremely important (1)

Moderately Important (2)

Less Important (3)

Not Important (4)

Not at all important (5)

- a) Better employment opportunities in the host country
- b) Expectations of better business opportunities in the host country
- c) Conducive immigration policy of the host country
- d) Relatives in the host country
- e) Better Income Prospects in the host country
- e) Quality of day to day life
- f) To gain experience that would later be highly valued in India
- g) Higher Education
- h) Bleak employment prospects in India
- i) Any other (please specify) _____

Please explain your first three preferences of rank-order.

Explanation of Rank 1 _____

Explanation of Rank 2 _____

Explanation of Rank 3 _____

8. Please Furnish the following information regarding your working experience and on –the- job-training in the host country.

- a) Place of work (Country/State)_____
- b) Profession/Occupation_____
- c) Type of Industry/Firm [Private/Public/Semi-government/Self-employed]
- d) Designation /Nature of Job _____
- e) Total emoluments per Annum (in US \$/Rs. _____
- f) Total Number of years in the firm/occupation_____

9. What is your current resident status overseas? Please tick the appropriate option.

- a) Still keep the permanent resident status
- b) Lost permanent resident status
- c) Never had permanent resident status
- d) Any other (Please specify)_____

III-INFORMATION ABOUT RETURN MIGRATION

1. When did you return to India? _____

2. Who has influenced/ inspired/motivated you to come back to India? Please tick the appropriate option.

- a) Family
- b) Friends
- c) Relatives
- d) Mentor/Your teacher
- e) Yourself
- f) Career Counselor

g) Any Other (Please specify) _____

3. What has motivated you to come back in India?

Please give scales to the following options according to your preference order like:

Extremely important (1)

Moderately Important (2)

Less Important (3)

Not Important (4)

Not at all important (5)

a) Recession in the host country

b) Increasing unemployment in the local labor market overseas.

c) Negative attitude of the employers towards immigrant employees

d) Language problems in the host country

e) Ethnic/racial Problems

f) Rigid immigration and settlement policies.

g) Difficulties in getting a good /appropriate overseas.

h) Expectation of better business/entrepreneurial opportunities.

i) Increasing employment opportunities in India in concerned sector

j) Recognition of India as a major IT power in the global world

k) Higher real earnings in India

l) Any Other (Please specify) _____

Please explain your first three preferences of rank-order.

Explanation of Rank 1: _____

Explanation of Rank 2: _____

Explanation of Rank 3: _____

4. What influenced your decision to select Bangalore after coming back from Abroad?

Please give scales to the following options according to your preference order like:

Extremely important (1)

Moderately Important (2)

Less Important (3)

Not Important (4)

Not at all important (5)

- a) Better infrastructure in comparison with other major cities of India
- b) Availability of experts in the concern sector(s)
- c) Abundant employment opportunities
- d) Better remuneration packages
- e) Accessibility to qualitatively better educational institutions for children
- f) Scope for self-employment/entrepreneurship
- g) Socio- Cultural or Language reasons
- h) Easy access to communication facilities
- i) Satisfactory health facilities
- j) Emerging state government support
- k) If any other (please specify)

Please explain your first three preferences of rank-order.

Explanation of Rank 1: _____

Explanation of Rank 2: _____

Explanation of Rank 3: _____

5. Please furnish the following information regarding your working experience and on-the-job training in India/Bangalore.

a) State/City _____

b) Profession/ Occupation _____

c) Type of Industry/Firm: [Private/Public/Semi-government/Self-employed]

d) Designation /Nature of Job _____

e) Total emoluments per Annum (in US \$/Indian Rs.) _____

f) Total Number of years in the firm/occupation _____

6.1 Were you aware of any incentive programme or policies of central/state government before coming back to India? YES NO

6.2 .If YES, please write the name of these programmes _____

6.3 Did you receive any assistance from these incentive programmes/policies?

YES NO

6.4 If YES, what kind of assistance did you receive from these programmes/policies?

a) Research fund/business starting fund

b) Bank loan/financial support

c) Personnel support

d) Facility/equipment

e) Other support. Please, specify _____

7.1 Are you satisfied with your present employment /business in Bangalore/India? YES NO

7.2 If you are satisfied, what are the most satisfactory factors in terms of your employment/business?

8.1 After your return have you had any problems in adjusting to the working conditions in Bangalore/India? YES NO

8.2 If yes, what are the major problems?

9. In what ways do you think the existing incentive programmes may prove to be more attractive for Indian emigrants working overseas?

16. Have you ever motivated anyone to return to India? YES NO
If yes, please explain: _____

IV- IMPACT OF RETURN MIGRATION

1. Which of the following do you consider the most important to your current work / business in Bangalore?

- a) Knowledge and skills gained overseas
- b) Work experience overseas
- c) Network established overseas
- d) Capital accumulated overseas
- e) If any other, Specify _____

2. How much is your current annual income compared with earlier income (before return)?

- a) Much lower than before
- b) Lower than before
- c) Not much change
- d) Higher than before
- e) Much higher than before

3. Do you find the skills, experience, knowledge, and ideas you gained abroad useful in your present position? Please provide explanation in detail.

3.1 Yes. Explain _____

3.2 No. Explain _____

3.3 Can you give us an example on how you used your skill, experience, knowledge, and ideas gained overseas to contribute to your institute/company/business?

4. Do your employer and colleagues value your skills, experience, knowledge and ideas gained overseas? YES NO

If, yes: Explain _____

If, no: Explain _____

5. When you were abroad, did you send remittances to your family members on a regular basis?

If Yes, How were the remittances used?

6. How much capital, you earned overseas, have been/can be invested in Bangalore?

- a) Up to Rs.5,00,000
- b) Rs.5,00,000-Rs.1,000,000
- c) Rs. 1,000,000-Rs 1,500,000
- d) Rs.1,500,000 and above

7. Which of the following best describes the major expenditure/investment after your return to Bangalore?

- a) Housing related expenditure (building material/purchasing a house/flat)

- b) Durable consumption goods (electronic appliance, furniture, etc)
- c) Other consumption goods
- d) Providing support to other family members
- e) Investment on business
- f) Investment on stock market
- g) Other expenditures, specify _____

8. Do you see you or your family much better off than before you went to overseas? YES NO

If yes, please explain:

If No, please explain

9. Do you see your ideas having an impact on people around you (e.g. extended family members and relatives)? YES NO

If yes, please explain in what way: _____

If No, please explain why not: _____

10. Have you kept your contacts overseas after your return?
YES NO

If yes, please explain in what way and with whom: _____

If no, explain

11. What are the most positive and negative feelings after your return?

Positive: _____

Negative: _____

12. Do you have any plan to go abroad again? YES NO

If yes, please write the name of the preferred destination country (ies): _____

If no, please specify the de-motivating factor(s): _____

13. Given a chance, would you settle down abroad permanently?

14. Have you ever thought of actively taking part in the development process of India? YES NO

If Yes, please explain, how? _____

15. Do you think that the next generation would receive the same benefits that you did while working abroad? YES NO

If yes, please explain, _____

IV RELATIONSHIP WITH AND INVOLVEMENT IN DIASPORA ASSOCIATIONS

1. Please write the name and address of the Diaspora's Association with whom you were associated/known overseas.

2. In what manner, these associations are helping to the Indian Migrants? Please tick the appropriate option(s).

- a) Provide a common platform to contact other Indians

- b) To share ideas and thoughts on various issues concerning Asian Indians
 - c) To provide a platform to grapple with professional problems
 - d) Provide valuable Information related to various jobs, occupations and educational programmes overseas.
 - e) Provide valuable information on various developments regarding educational, employment and investment policy concerns at home, which may be helpful for the return migrants.
 - f) If any other, please specify.
-

3. Were you a member of any Diaspora Association (s)? YES NO

If yes, please write the name and address of the association, mentioning important activities.

4. Have you ever taken any help from any of the Diaspora Association(s) in India/abroad? : YES NO

If yes, what kind of help did you receive and when

5. How often you used to attend the meetings of Diaspora Association(s)?

- a) Regularly
- b) Sometimes
- c) Never Attended

6. Have you ever served as an office bearer or a board member for the Diaspora Association(s): YES NO

If yes, please mention about the post(s) and the responsibilities

Thanking you for your cooperation.

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