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Indian Student Mobility to Germany

—Trends, Prospects and Implications for the Labour Market

Rupa Chanda*
Shahana Mukherjee#

Abstract

This paper focuses on Europe as a destination market for students pursuing higher education and, specifically, focuses on student mobility between one European host country, namely Germany and a leading source country, namely India. It discusses the trends and characteristics of student flows from India to Germany and identifies factors that are likely to have contributed to as well as constrained Germany's presence as a destination for international students, including Indian students. The discussion is based on secondary evidence and corroborated by findings from a primary survey of Indian students in Europe carried out by the authors. Against this backdrop, the paper presents the current and projected skill and occupational shortages in the German labour market and the present contribution of Indian workers to the German labour force to draw inferences about the potential role Indian students could play in filling these gaps as future participants in the country's labour market. The paper concludes by outlining higher education and related policies that could be used by a "middle player", such as Germany, to attract students from key source countries, like India, for meeting its skill and occupational requirements and addressing its demographic challenges.

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Introduction

The world economy is increasingly characterised by economic interdependencies among nations, and relies on international trade as the facilitator of economic transactions. While the last decade has witnessed a sharp increase in all forms of cross-border trade in services, the provision of education services on a global scale, in particular, has gained popularity, driven by strong growth in cross-border student mobility.

International student mobility has gained significance over the past decade. With over three million students pursuing higher education outside their home countries, involving an estimated US\$80 to \$90 billion in revenues, and a growing number of countries participating in this process, the internationalization of higher education, in large part driven by cross-border flows of students, has significant economic implications for both sending and receiving countries.¹ Numerous studies have examined the phenomenon of international student mobility, including the drivers and constraints to these flows, the approaches adopted by different countries, the rationale for internationalization and the impact on source and host economies. The literature provides a conceptual framework for understanding these flows. It points to four important dimensions of international student mobility and the internationalization of higher education more generally, namely the political, economic, academic and social/cultural aspects of such flows.²

This paper draws upon the existing conceptual framework while focusing primarily on the economic dimension of international student mobility, specifically the significance of cross-border student flows for host country labour markets. Although a large number of countries participate as providers and consumers in the global market for higher education and international student mobility, this paper focuses on student mobility between two particular countries—India (the second-largest source country for all internationally mobile students) and Germany (a prominent host country that receives over six percent of all internationally mobile students annually).³

The objective of this paper is two-fold. The first is to provide an overview of the trends and characteristics of Indian students who pursue higher education in Germany, a country that has received much less attention in India compared to other countries such as the US, the UK and Australia, which are the traditional destinations for Indian students. The second objective is to examine the potential implications of Indian student inflows into Germany for the German labour market, given trends observed among Indian migrants currently residing in Germany and contributing to the German economy. An examination of the available evidence suggests that increasing the intake of Indian students may help in addressing certain sector-specific shortages in the German labour market. Thus, a larger objective of this paper is to highlight the scope for non-traditional host countries to use international student mobility and related higher education and work policies as part of their immigration and labour market strategy to address demographic challenges and skill shortages.

¹ Refer to Table A.1 in Annexure. See, <http://www.universityworldnews.com/article.php?story=20120106164011851> (last accessed on 2.4.2013)

² See, Qiang (2003) for an exhaustive further discussion of the conceptual framework guiding internationalization of higher education.

³ Based on UNESCO statistics on internationally mobile students (2009). Refer to Table A.2 in Annexure.

The paper is organized as follows. Section 2 provides a brief overview of the global mobility of students and India's role in this global market as an important source country for students. Section 3 discusses the trends and key features of Indian student mobility to Germany and factors contributing to and also constraining these flows based on a mix of primary and secondary evidence. Section 4 provides the labour market scenario in Germany in terms of areas of skill shortages and discusses the role Indian immigrants currently play in that economy as workers and potentially as students who could later enter its workforce. Section 5 outlines steps that could be taken by the German government to attract international students, specifically from an important source country such as India, and possible lessons that could be learnt in this regard from other emerging destinations for international students. It concludes by underscoring the importance of framing policies concerning the internationalization of higher education within the overall framework of immigration and labour market policies in host countries as also the scope for using such policies to shape bilateral relations across many dimensions with target countries.

The Global Student Market and Europe

Cross-border student mobility has been on the rise since the late *nineties*. UNESCO statistics on internationally mobile students reveal that the number of students seeking higher education abroad has grown steadily from 0.91 million in 1998 to over 3.1 million in 2009. In particular, international student flows registered the strongest annual growth of nearly 17 percent between 2001 and 2002. However, the annual growth in international students has slowed down since 2004 and grew at an average annual rate of 4.3 percent between 2004 and 2009.⁴

Host Countries

Statistics reveal that English-speaking countries like the United States (US), United Kingdom (UK) and Australia have been the most popular destinations for international students and continue to collectively receive over 40 percent of all internationally mobile students.⁵ The US has held the dominant position in this industry and has consistently received the largest number of all internationally mobile students, though its share has gradually declined from 27.6 percent (in 1999) to 21.2 percent (in 2009). Similarly, the UK has experienced a decline in its market share from 14.2 percent in 1999 to 11.9 percent in 2009, while Australia's share has remained close to seven percent over the same period. The other prominent countries with sizeable shares are France and Germany, which received eight percent and 6.4 percent of all international students in 2009, respectively.⁶

Despite the international student market being concentrated among a few host countries as indicated above, reports suggest that countries like Canada, New Zealand and Japan have successfully entered the industry in recent years and have gained popularity in a number of source countries. The implication is that internationally mobile students have gradually broadened their perspective to consider new and upcoming markets for higher education abroad.

⁴ Refer to Table A.1 in Annexure.

⁵ Refer to Table A.2 in Annexure.

⁶ Refer to Table A.2 in Annexure.

Europe as a destination market

The role of student mobility in Europe has undergone considerable change in the 21st century. In particular, significant changes in the role of student mobility within Europe can be traced back to the post – Second World War period. In the years following the Second World War, international student mobility (within Europe) was encouraged for improving bilateral relations within Europe, which had been severely damaged as a consequence of the war. Student mobility served the dual purpose of enhancing mutual understanding between countries, in addition to promoting educational and professional engagements at the international level (Teichler, 2009).

In subsequent years, the launch of the ERASMUS Programme (1987) marked one of the most significant achievements in European cooperation on higher education. Students who participated in the ERASMUS Programme were provided scholarships to study in another European country for up to one year.⁷ By way of promoting intra-European student mobility, staff mobility and recognition of courses amongst other objectives, the ERASMUS Programme was pivotal in enhancing educational engagement among European countries.

In the following decade, however, the European Community developed a growing interest in worldwide student mobility. A significant step in this direction was the initiation of the Bologna Process in 1999, which aimed at promoting the internationalization of higher education in Europe by establishing convergent structures of study programmes across Europe.⁸ Considered to be one of the most prominent policy developments in Europe, the implementation of the Bologna Process was expected to achieve the dual objective of facilitating intra-EU student mobility and improving the attractiveness of European higher education for Non-European students. It is, therefore, seen that certain reforms have been implemented over time to develop the European system of higher education and enhance its global appeal to non-European students. The gradual implementation of the degree structure by EU members led to the formation of the European Higher Education Area (EHEA); an ambitious goal of the EU policy makers which was finally realized in 2010, following 10 years of implementation of the Bologna process.⁹ However, national policies on higher education differ significantly across member states and, consequently, the European higher education market has remained “segmented into regional or national markets” (Musselin, 2004).

Statistics on international student flows reveal the positive effect of the aforementioned policy initiatives on student flows to Europe. European countries have collectively received a growing number of non-European students in the last decade. The European continent receives the largest share of all internationally mobile students among all regions, accounting for 47.7 percent of all international students in 2009.¹⁰

Within Europe, the United Kingdom (UK) has consistently attracted the largest number of internationally mobile students. However, since 1996, Germany and France (among other countries) have also taken keen interest in international students and, consequently, received a growing number of non-European students since 2000. Together, within Europe,

⁷ http://ec.europa.eu/education/erasmus/history_en.htm (last accessed on 28.4.2012)

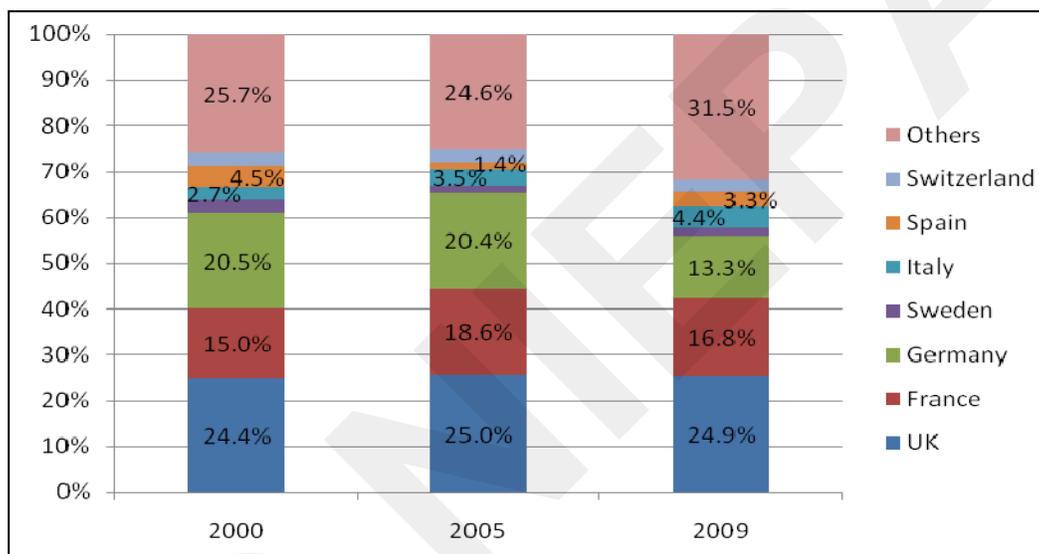
⁸ <http://ec.europa.eu/education/policies/educ/bologna/bologna.pdf> (last accessed on 28.4.2012)

⁹ http://ec.europa.eu/education/pub/pdf/higher/ehea_en.pdf (last accessed on 30.4.2012)

¹⁰ See, Table A.1 in Annexure.

the UK, France and Germany cumulatively attracted over 55 percent of all international students (who chose Europe) between 2000 and 2009. Italy and Spain are other European countries that receive international students, followed by newer countries like Switzerland and Sweden, as seen in Figure 1, which indicates more diversification in student preferences since 2000. The market features of the latter European countries differ substantially from those of the UK (and other popular destinations like the US) and international students (especially non-European students) perceive these markets in a unique way.

FIGURE 1
Distribution of international students (in Europe) across main host countries



Source: Based on statistics from the UNESCO database on International students at tertiary level (ISCED 5 and 6) <http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx> (last accessed on 2.5.2012).

It is, however, important to note that the European share of nearly 48 percent of all international students does not represent worldwide mobility. A distribution of students across source countries reveals the predominant occurrence of regional or intra-European mobility. As seen in Table 1, a majority of international students received by Europe come from other European countries. The high levels of 'European' mobility partially reflect the successful implementation of European educational programmes (like the Socrates which promoted intra-European student mobility). However, a noteworthy trend since the early *nineties* is the growing share of non-European students in the European market while the share of European students has declined from a high of 49 percent in 2000 to 39.6 percent in 2009.

TABLE 1

Regional distribution of (incoming) international students in Europe

<i>Host Region (Incoming international students)</i>	<i>2000</i>	<i>2005</i>	<i>2009</i>
Africa	15.0%	15.1%	13.5%
North America, Central America and Caribbean	4.4%	3.8%	3.8%
South America	2.7%	2.3%	3.4%
Asia	24.5%	30.9%	33.2%
Europe	48.9%	38.3%	39.6%
Oceania	0.3%	0.3%	0.3%
Unspecified region and country	2.6%	9.3%	5.9%

Source: Based on statistics from the UNESCO database on International students at tertiary level (ISCED 5 and 6) <http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx> (last accessed on 2.5.2012).

The growing interest in student mobility from non-European countries can, in part, be attributed to a change in the European or regional perspective of higher education since the late *nineties*. Most European countries have been promoting international or non-European student mobility with varying intensity over the past decade. This is reflected in the growing diversification of source regions for international students in Europe.

Table 1 also highlights the growing representation of Asian students, whose share has consistently increased since 2000, reaching a third of all international students (in Europe) in 2009.

Table 2 further shows the source country-wise distribution of Asian students pursuing higher education in Europe. It indicates that China is the most represented country among all Asian students received by Europe. Its significance as a source country has increased over time, with the share of Chinese students in Europe rising from a mere 2.1 percent in 2000 to over eight percent in 2009.

TABLE 2

Students from Asia [as a share of (total) International Students in Europe]

<i>2000</i>		<i>2005</i>		<i>2009</i>	
Turkey	3.8%	China	8.6%	China	8.4%
China	2.1%	Turkey	2.6%	India	3.5%
Kazakhstan	1.9%	India	2.0%	Kazakhstan	2.0%
Iran	1.5%	Kazakhstan	1.9%	Turkey	1.8%
Malaysia	1.2%	Cyprus	1.5%	Malaysia	1.3%
Japan	1.2%	Malaysia	1.2%	Pakistan	1.2%
Israel	1.1%	Iran, Islamic Rep	1.0%	Iran	1.1%
Korea	1.1%	Korea	0.9%	Vietnam	1.1%
Hong Kong (China)	0.9%	Japan	0.9%	Korea	0.9%
Cyprus	0.8%	Hong Kong (China)	0.8%	Cyprus	0.8%
Others	8.9%	Others	9.4%	Others	11.2%
Students from Asia (as a share of international students in Europe)	24.5%		30.9%		33.2%

Source: Based on statistics from the UNESCO database on International students at tertiary level (ISCED 5 and 6) <http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx> (last accessed on 2.5.2012).

An equally important feature, highlighted by Table 2, is the steady growth registered by Indian students. Till 2000, Indian students accounted for less than one percent of all international students in Europe. However, their share has consistently risen since then and, in 2009, India became the second-largest sending country (from Asia) for international students in Europe. The following discussion examines recent trends in the flow of Indian students to Europe within the larger global context.

Indian Students in Europe

Globally, India accounts for the largest number of internationally mobile students after China. Student flows from India have increased substantially since 2000 and grew by over 256 percent (from 53,266 to 190,781) between 2000 and 2009. In 2009, Indian students constituted 6.2 percent of all international students.¹¹ A number of factors have led to increased outward flows of Indian students seeking higher education abroad. These include the persistent and growing shortage of capacity in universities and institutes in India, intense competition for seats, the failure of educational infrastructure to keep pace with growing demand and changing labour market needs, lack of quality education outside a small minority of institutions and rising income levels and aspirations among the Indian middle class which makes it possible for a larger number of Indian students to study abroad.¹²

Internationally mobile Indian students are particularly concentrated in English-speaking host countries like the US, the UK, and Australia. The US has been the leading host country for Indian students and received over 53 percent of all Indian students in 2009. Together with the UK and Australia, the English-speaking countries hosted over 80 percent of all Indian students.¹³

In Europe, the presence of Indian students has increased in the post-2000 period, as indicated by Europe's share of (internationally mobile) Indian students, which has increased from 12.7 percent in 2000 to 27 percent by 2009.

¹¹ Refer to Table A.3 in Annexure.

¹² Very few universities and engineering institutes in India are known to disseminate quality education, and this shortage results in excessive competition amongst aspiring students. An example of this is the much sought after Delhi University, which has consistently raised its cut-offs (for admission into undergraduate courses), which usually range between 90 and 95 percent for popular subjects like Economics. The competition is equally intense in the field of Engineering, where over 500,000 students compete for merely 9,600 seats offered by the reputed Indian Institutes of Technology (IITs). See, http://www.dnaindia.com/academy/report_5-3-lakh-aspirants-vie-for-9600-iit-seats_1501963 (last accessed on 4.5.2012) In its present state, therefore, the Indian education sector lacks the infrastructure required to cope with the growing demand for (post-graduate and doctorate) courses in Sciences, Engineering and Business Management. See, http://www.pwc.com/en_IN/in/assets/pdfs/industries/education/PwCEducationServices.pdf (last accessed on 4.5.2012)

¹³ Refer to Table A.4 in Annexure.

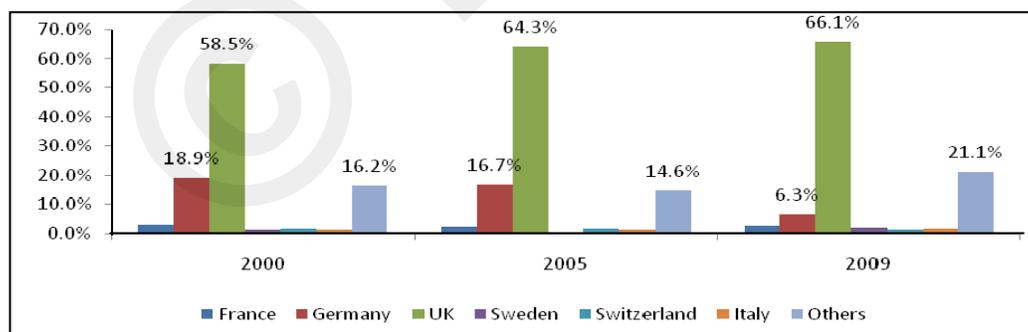
TABLE 3
Indian Students in Europe

Year	Indian Students (World)	Indian Students in Europe	Share of Europe (%)
2000	53266	6772	12.7%
2001	58683	7585	12.9%
2002	91189	10327	11.3%
2003	110716	17227	15.6%
2004	125881	22345	17.8%
2005	138072	25962	18.8%
2006	136238	28496	20.9%
2007	154116	34084	22.1%
2008	176454	41735	23.7%
2009	190781	51566	27.0%

Source: Based on statistics from the UNESCO database on International students at tertiary level (ISCED 5 and 6) <http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx> (last accessed on 2.5.2012).

Within Europe, Indian student flows remain concentrated in the UK, which accounted for over two-thirds of all Indian students received by Europe in 2009. However, there has been a growing interest on the part of Indian students in non-English speaking countries such as Germany and France in recent years and annual flows of Indian students to these countries have been on the rise.¹⁴ Germany and France, respectively, accounted for 6.3 percent and 2.4 percent of all Indian students in Europe in 2009, occupying the second and third positions after the UK (although they accounted for a mere 1.7 percent and 0.7 percent, respectively of all Indian students worldwide).

FIGURE 2
Distribution of Indian students (as a share of total Indian students in Europe)



Source: Based on statistics from the UNESCO database on International students at tertiary level (ISCED 5 and 6) <http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx> (last accessed on 2.5.2012)

¹⁴ Refer to Table A.4 in Annexure.

The statistics, therefore, suggest that Germany is an important prospective market for Indian students, although the trends also reveal that Germany's share of Indian students in Europe has declined over the 2000-09 period while that of other destination markets within Europe and of the UK has grown over this same period, indicating the emergence of more destinations and growing competition within Europe. This trend is also true globally for Germany, whose share of international students has declined from over 20 percent in 2000 to 13.3 percent in 2009, reflecting growing global competition for international students.

The following section examines, in further detail, recent trends and features characterizing the flow of Indian students to Germany and also highlights the factors that are likely to have facilitated and constrained this movement. The discussion draws upon a mix of secondary and primary sources. Primary evidence was collected on the basis of an online survey conducted by the authors between October and December 2011 of Indian students in Europe.¹⁵ The survey covered 120 Indian students studying in five European countries, namely, the UK, Germany, France, Italy and Spain, of which nearly 47 percent of all students were either based in Germany and France. In addition to collecting basic information about the respondent and his/her programme and host country, the survey obtained the students' views about Europe as a destination for higher education, the relative attractiveness of traditional markets such as the UK, US and Australia compared to other host countries in Europe and the factors influencing their choice of destination market.

Indian Students in Germany: Trends and Characteristics

As Germany is one of the leading research-intensive destinations of higher education, it has traditionally received a large number of foreign students. The latter constituted 12.4 percent of all students in Germany in 2010-11. China, Turkey, and Russia were among the main sending countries and, cumulatively, accounted for nearly 30 percent of all international students in Germany in 2009-10.¹⁶ The distribution of international students across countries of origin reveals that India currently ranks *fourteenth* on the list of top sending countries for Germany and Indian students constitute nearly two percent of all international students in Germany.

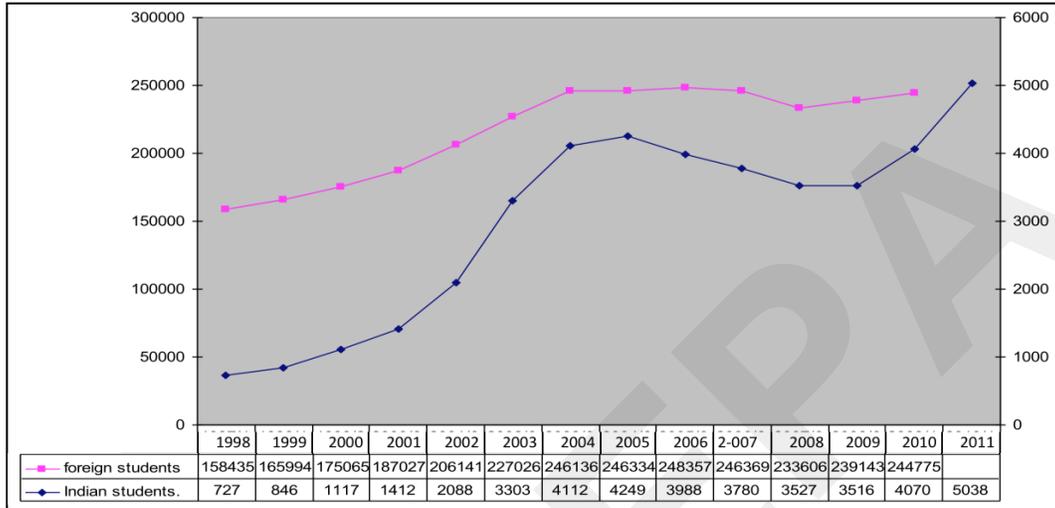
Figure 3 shows the fluctuations in the flow of Indian students to Germany between 1997 and 2011. The numbers increased steadily from 1,117 to 4,249 (growth of 280 percent, albeit from a small base) between 1999 and 2004 followed by a marked decline (of 17.3 percent) between 2004 and 2008. However, the period since then has witnessed a strong revival in enrolments, as Germany received over 5,000 students from India in 2011.

¹⁵ The survey on Indian students has been conducted as part of a study on Indian student mobility to European countries. A summary of the results pertaining to students in Germany and France can be found in Table A.8 of Annexure. For a comprehensive summary of the survey results, refer to an earlier paper on Indian student mobility to Europe.
<http://www.india-eu-migration.eu/media/CARIM-India%202012%20-%202012.pdf>

¹⁶ For the list of top 10 source countries for Germany, refer to Table A.5 in Annexure.
<http://www.iie.org/Services/Project-Atlas/Germany/International-Students-In-Germany>.

FIGURE 3

Indian Students in Germany



Source: Federal Statistical Office, Germany, www.eds-destatis.de/en_index.php (last accessed on 30.10.2011).

As seen in Table 4, a majority of Indian students pursuing higher education in Germany opt for Post-Graduate level courses. The statistics also suggest there has been an increase in the number of students pursuing Doctoral level courses, which accounted for nearly a *third* of all Indian students in Germany by 2010.

TABLE 4

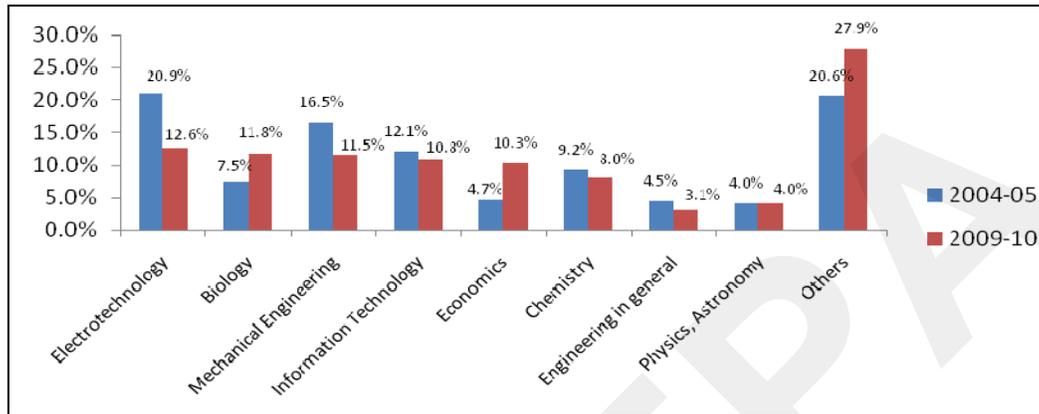
Distribution of Indian students in Germany by level of study (%)

Level of Study/Year	2004-05	2009-10
Overall, before Master's degree	15.2	10.3
Undergraduate degrees including Masters	58.2	56.9
Doctoral studies	21.5	30.5
Not studying for a degree	5.0	2.3

Source: Federal Statistical Office, Germany, www.eds-destatis.de/en_index.php (last accessed on 30.10.2011)

A majority of Indian students in Germany specialize in fields of Engineering (Mechanical and Process Engineering), Information Technology (IT), Sciences (Biology and Chemistry) and Economics (in recent years). Figure 4 further suggests that the preference for IT, Engineering and Science-related courses has remained largely unchanged over the given time period.

FIGURE 4
Breakdown of Indian students in Germany by subject area



Source: Federal Statistical Office, Germany, www.eds-destatis.de/en_index.php (last accessed on 30.10.2011).

Contributing factors

The rise in Indian student flows to Germany suggests that Germany has become an attractive destination for Indian students since 2009. The improved visibility of German higher education institutions for Indian students can be attributed to a variety of factors on both the sending and the receiving sides, as revealed by secondary and primary evidence and discussed next. (It should, however, be noted that many of these factors are not unique to India or to Germany and would be generally applicable to other host and source countries).

Reduced attractiveness of traditional markets

Indian students for long remained concentrated in markets like the US, the UK and Australia, which were also (until recently) the leading service providers of international higher education. However, their preference has diversified in the last five years to include European countries like Germany and France. Though a rise in the flow of Indian students to these countries can be partially attributed to strategic policies designed to attract them (as discussed later in this section), unexpected changes in the UK and Australia have also aided the flow of Indian students to alternative destinations.

A series of racial attacks on Indians in Australia, followed by a “clampdown by the Australian government on dubious institutions” in 2009, severely damaged the Australian reputation and dampened the flow of Indian students, which dropped by a remarkable 77 percent in 2010.¹⁷ There was also a sharp decline in Indian students going to the UK (by nearly 10 percent) in 2011, in the wake of similar racist attacks on Indians and stringent visa

¹⁷ http://articles.economictimes.indiatimes.com/2011-05-01/news/29491210_1_indian-students-uk-visa-rules (last accessed on 5.5.2012)

regulations, which discontinued the two-year Post-Study Work (PSW) scheme.¹⁸ Under the current policy, foreign students, who graduate from UK universities, can continue to stay in the UK provided they hold a “highly skilled job offer”.

The events stated above had a palpable effect on the decision of many prospective students. It is well known that Indian students incur significant financial liabilities for pursuing higher education in the UK or Australia. Due to the limited availability of scholarships for foreign students, a majority of Indian students are entirely self-financed and many of them crucially rely on securing employment in the host country on completion of studies (which is necessary for recovering the costs incurred in financing their education). The attempt to separate the ‘international student’ route from the migration route has affected the future prospects of several Indian students in the UK by increasing the uncertainty of finding employment and, subsequently, the means of repaying their financial obligation. The reduced scope of employment has, therefore, increased the opportunity cost associated with pursuing higher education in the UK.

The US’ reputation as a destination market has also been affected by incidents such as fraudulent universities coming to light in early 2011. The immigration fraud by the Tri Valley University in California was unraveled in 2011 and resulted in hundreds of Indian students being deported. This incident revealed the lack of a “single accrediting body” in the US and made a number of Indian students as well as employers more cautious about the lesser known universities in the US. An immigration fraud of this magnitude raised serious questions about the reliability of American institutions. Additionally, with the economic slowdown in the US economy dampening employment prospects, the overall expectations from the US may have fallen in recent times.¹⁹

Results from the primary survey, conducted by the authors, corroborated the significance of such developments. They revealed the sensitivity of Indian student flows to issues involving social security, regulations and employment opportunities in prospective host countries. The survey found that incidents of the sort highlighted above have affected the sense of safety and future opportunities among Indian students and may have encouraged more Indian students to broaden their outlook and seek out other destinations, including non-traditional destination markets such as Germany. Nearly 40 percent of all respondents in Germany did not consider the UK to be suitable for higher studies and around a similar number had similar views about Australia, due, in part, to concerns over safety and post-study uncertainties in these countries, besides concerns over the quality of education in these latter countries.

English-Taught Programmes

Another factor that has contributed to Germany’s increased visibility among Indian students is the increase in the number of programmes taught in English. According to a recent study conducted by the International Institute of Education (IIE) on English-taught

¹⁸ This scheme had previously allowed non-EU students to stay for upto two years in the UK to find suitable employment.

<http://www.universityworldnews.com/article.php?story=20111209195503978> (last accessed on 5.5.2012)

¹⁹ <http://www.universityworldnews.com/article.php?story=20111209195503978> (last accessed on 10.5.2012).

programmes in Europe,²⁰ there has been tremendous growth in the number of such programmes offered by European universities across several countries, rising from 1,615 in 2008 to 4,644 in 2011(White, 2012). Although this development is not unique to Germany, the latter has seen a phenomenal increase in such programmes. Within continental Europe, Germany offers the second-highest number of English-taught programmes (after The Netherlands), with 144 institutions offering 632 such courses in 2011.²¹ Most of this increase has occurred between 2008 and 2010, when the number rising from 170 to 522.²² As seen earlier, this was also the period which witnessed an upward trend in Indian student flows to Germany.

Further, the IIE study finds that a majority of all English-taught programmes (nearly 80 percent) in Germany are two-year courses and are in areas of specialization that commonly attract international students. Over 35 percent of Germany's English taught programmes are offered in the field of Business and Economics, followed by over 20 percent in Engineering. As Business Economics and Engineering feature among some of the most popular fields of study for international students in Germany, the trend outlined above suggests that there has been an attempt to improve the country's attractiveness as a destination by offering popular courses in English. Although a direct correlation cannot be drawn between the availability of such courses and the inflow of Indian students, evidence from website search records for the EU's Master's Portal suggests the significant demand for English-taught programmes among international students, including Indian students. For instance, there were over 11 million unique viewers in 2011 and an aggregate of 26 million viewers since the website's launch in 2007. Importantly, nearly 25 percent of all visitors were from Asia and 6.5 percent of all viewers were students from India, with 46 percent of the searches related to Engineering and Technology courses, and 19 percent for Business and Economics courses, two domains that Indian students most frequently opt for.²³ Figure 7 illustrates the distribution of these website searches across disciplines for a number of European countries.

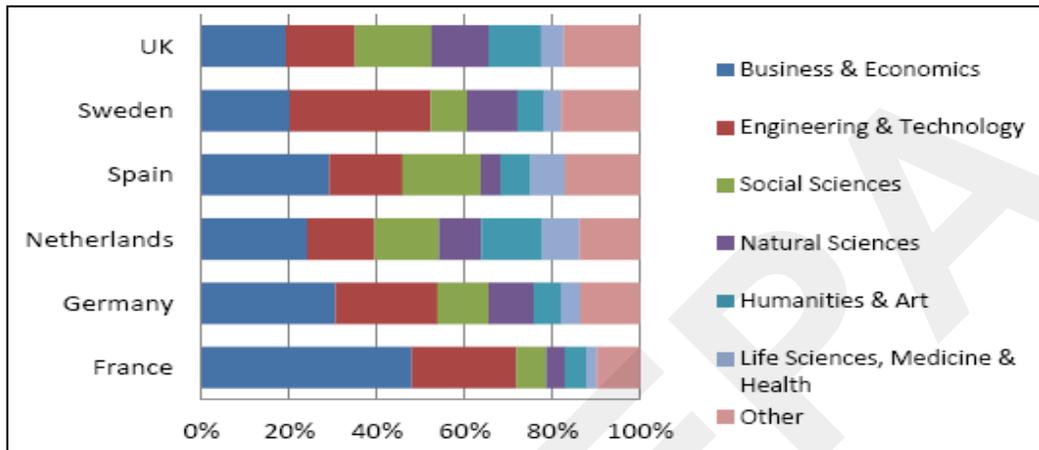
²⁰ The study is based on data on online searches/queries listed on www.mastersportal.eu, a website which provides information related to higher studies in Europe. For more information on the study, see the Institute of International Education (IIE) report titled, "English-taught programmes in Europe: New findings on Supply and Demand". www.iie.org/Research.../English-Language-Masters-Final.ashx (last accessed on 10.5.2012)

²¹ For a detailed distribution across other European countries, refer to Figure A.1 In Annexure 1.

²² It is important to note that the absolute change in programmes between 2008 and 2010 (reported above) need not represent an equal rise over the period. As the results of the study are based on statistics from a website (www.mastersportal.eu), it is likely that many institutes registered (in this website), long after the introduction of English-taught programmes. For more information on this, one may refer to the study.

²³ For more information, see the Institute of International Education (IIE) report titled, "English-taught programmes in Europe: New findings on Supply and Demand". www.iie.org/Research.../English-Language-Masters-Final.ashx(last accessed on 10.5.2012)

FIGURE 7
**Website Searches for English-taught Programmes by Discipline
 Breakdown by Country²⁴**



Source: Reproduced from an Institute of International Education (IIE) report titled, “English-taught programmes in Europe: New findings on Supply and Demand”. www.iie.org/Research.../English-Language-Masters-Final.ashx (This Figure corresponds to Table 8 of the document, titled “Discipline breakdown by country”).

Note: The distribution exclusively refers to online searches in the website www.mastersportal.eu.

The information presented in the Figure should be interpreted as follows: nearly 50 percent of all searches in the website for English-taught programmes in France are for courses related to Business & Economics.

Although these numbers require further analysis, they would suggest a growing interest and greater awareness of English-taught programmes among international students, including Indian students, who are actively exploring their options for higher education in Europe. Thus, a substantial rise in the number of English-taught programmes is likely to be one of the factors, which has attracted Indian students to Europe, including Germany, in recent years. The survey findings corroborated this inference by indicating that for Indian students, the increased availability of popular courses (taught in English) in newer, yet international markets reduces the pressure of learning a foreign language and also the perceived differences between European markets like Germany and conventional (English-speaking) markets like the US or the UK.

²⁴ The distribution of English-taught programmes by country (and discipline) is based on searches on www.mastersportal.eu, a website which provides information related to higher studies in Europe. For more information on the study, see the Institute of International Education (IIE) report titled, “English-taught programmes in Europe: New findings on Supply and Demand”. www.iie.org/Research.../English-Language-Masters-Final.ashx (last accessed on 10.5.2012).

Tuition fees and Scholarships

Another feature, which has placed European countries such as Germany on the radar of Indian students, is the cost of higher education. The financial feasibility of pursuing higher education abroad is one of the main variables that determine their choice of destination. In this regard, several European countries have gained mileage as they charge considerably lower tuition fees. Additionally, there is another factor, which differentiates Germany from other traditional destination countries. Unlike many host countries like the UK, USA and Australia, which charge substantially higher tuition fees from foreign students (upto thrice the amount in the case of the UK), and where foreign student fees are a vital source of university revenues, Germany does not distinguish between domestic and international students and charges the same tuition fees for all students. Most universities in Germany are state-owned/public universities (funded by the government) where education is highly subsidized and tuition rates are kept low to attract the best talent from around the world. As high tuition rates considerably raise the expenditure associated with higher education abroad and place a number of students under financial strain, lower tuition rates offered by Germany indeed provide a strong incentive for many Indian students considering higher education abroad.

A recently conducted study on the financial costs of pursuing higher education confirms this fact. The study reports significant differences between countries with respect to the costs associated with higher education abroad.²⁵ The study which ranked countries based on (multiple perspectives of) affordability of higher education found that the average costs of education were among the lowest in France [\$585] and Germany [\$933]. The average living costs were \$7462 and \$5317, respectively, which were considerably lower than that in the US [\$9759], or the UK [\$9556]. An aggregate assessment of costs (which included educational and living costs, in addition to the (average) availability of government grants) revealed that Germany was considered as relatively more affordable destinations for higher education (as they ranked 3 and 7, respectively), compared to the UK, the US and Australia, which ranked much lower on the scale (at 11, 12 and 13, respectively).²⁶ Germany, in particular, was found to have an advantageous position as education is subsidized by the German government and hence, most universities charge minimal (limited to €500 per semester) or no tuition fees.²⁷ Combining living costs, a year of study in Germany worked out to around Rs. 0.6 million (Indian Rupees (INR)), in stark contrast to an equivalent period spent in the UK, which amounted to a cost of up to Rs. 3 million.²⁸

²⁵ This is a report titled *Global Higher Education Rankings: An Affordability and Accessibility Comparative Perspective (2010)*.

http://www.ireg-observatory.org/pdf/HESA_Global_Higher_EducationRankings2010.pdf
(last accessed on 29.7.2012)

²⁶ For more information, refer to the *Global Higher Education Rankings (2010)* report.

http://www.ireg-observatory.org/pdf/HESA_Global_Higher_EducationRankings2010.pdf
(last accessed on 29.7.2012)

²⁷ <http://newdelhi.daad.de/mainFrame/toGermany/masterstudiesingermany.pdf> (last accessed on 11.5.2012)

²⁸ <http://www.universityworldnews.com/article.php?story=20111209195503978> (last accessed on 11.5.2012)

The primary survey, similarly, revealed the importance of tuition fees and Germany's relative attractiveness in this respect for Indian students. The survey highlighted that tuition rates charged by international universities are crucial for Indian students as most of them incur educational loans to finance their education, which consequently places them under an obligation to repay the loan. In this regard, lower tuition fees can make a significant difference to the financial impact of studying abroad. Around 52 percent of all respondents in Germany cited lower costs of education as one of the reasons for choosing the host country.

Discussions with students and officials as well as available secondary sources further indicated that in addition to lower tuition rates, Germany's attractiveness as a destination market is also influenced by financial incentives offered to Indian students in the form of various scholarships and grants. Institutions such as the German Academic Exchange Service (DAAD) and universities alike offer a wide range of financial aid. Recent reports find that nearly one in five, or 15-20 percent of all Indian students going to Germany receive some form of financial assistance.²⁹ Thus, evidence suggests that the financial implications of pursuing higher education in Germany (in terms of lower tuition rates, educational costs and the availability of scholarships) combined with the option of pursuing courses entirely taught in English have contributed to Germany's attractiveness as a higher education destination for Indian students in recent years.³⁰

Policies to promote student inflows

As seen from the preceding discussion, several European countries, including Germany, have in recent years, taken a more pro-active stance towards the internationalization of their higher education systems. This stance stems from the view that internationalization (in the form of international student mobility) can improve the educational quality of the education system and can positively contribute to the development of a knowledge-intensive economy.³¹

In the case of Germany, according to a senior representative of the German Academic Exchange Service (DAAD), since 2000, the country has made significant efforts to 'internationalize' every dimension of higher education. Promoting student mobility (both inbound and outbound) is a part of this larger objective, along with other policies at the national and institutional level, which increasingly emphasize promoting academic staff mobility and international research collaborations. Specifically with respect to Indian students, the respondent from DAAD noted that Germany has multiple reasons for tapping the Indian market. It is widely accepted in Germany that India is an important source country for talented students and that the presence of Indian students raises the overall performance standards of universities. Further, as a majority of Indian students specialize in areas of engineering, and Information Technology (IT), they are seen to be particularly

²⁹ As per a discussion with a representative of DAAD in Germany.

³⁰ <http://www.hindustantimes.com/HTEducation/Chunk-HT-UI-HTEducationSectionPage-OtherStories/Indian-enrolments-soar-in-Germany/SP-Article1-798328.aspx> (last accessed on 26.7.2012)

³¹ For more information, see the NUFFIC Report titled, 'Competing for the brightest minds'. <http://www.nuffic.nl/en/news/latest-news/competing-for-the-brightest-minds> (last accessed on 3.5.2012)

valuable for Germany where there is extensive research in similar domains. The financial implications of hosting Indian students are also deemed to be important, as Indian students are known to spend nearly \$13 billion on higher education abroad, thus providing substantial financial resources to host economies.³²

According to the DAAD representative, in the short run, Germany seeks to attract quality students from India who add value to the existing pool of academic resources in Germany. Many Indian students are also considered valuable as they prove to be good workers and can, thus, contribute to the German economy. In the long run, students from various cultural backgrounds, including India, are seen as contributing to diversity in Germany's student and research base, thus creating a more cosmopolitan environment for research-oriented activities. Another long-term objective of Germany is to promote bilateral exchange of staff mobility and enhance research collaborations between Indian and German universities. The number of partnerships between Indian universities and their German counterparts has grown significantly and the exchange of scientists between India and Germany has intensified through a project undertaken by the Indian Department of Science and Technology (DST) and DAAD. There have been 120 new collaborations and an exchange of 900 scientists between India and Germany. Such collaborations and tie-ups have also contributed to increased student flows between India and Germany. Thus, several country-specific incentives and pro-active measures undertaken by Germany and the targeting of important source countries such as India, apart from more generalized factors, explain Germany's increased visibility among Indian students looking at higher education abroad.³³

Constraining factors

Although Germany has taken steps to increase its international appeal as a destination market for higher education and has attracted a favourable response from Indian students, certain challenges continue to constrain the flow of Indian students to Germany. The following discussion is primarily based on the findings of the aforementioned primary survey of Indian students in Europe.

Cultural and Linguistic differences

Germany is a country with strong historical linkages and a rich cultural legacy. Cultural identity is integral for the people of Germany and it assumes an important role in German society. However, this feature can create difficulties for international students. Not surprisingly, a number of prospective students from India considering Germany (as well as France) raised this issue in the survey. Nearly 75 percent of all respondents from Germany cited cultural differences as one of the main issues faced during their stay in Europe. For nearly half of the respondents in Germany, inadequate language skills (and associated cultural challenges) were the main difficulty faced during their stay. Though this issue is likely to affect most non-European students, it poses a greater challenge for many Indian students due to the existing language barrier. While Indian students fulfill the minimum linguistic requirements on (or after) securing admission to a German university, their

³² <http://www.universityworldnews.com/article.php?story=20080403160850431> (last accessed on 4.5.2012)

³³ See Hawthorne (2008)

knowledge is often limited, which, consequently, affects their ability to communicate and fully adapt to the German system.

According to one Post-graduate student (pursuing a Master's degree in Global Production Engineering in Germany), who participated in the survey, sound knowledge of the German language is important because it affects an international student's chances of securing suitable employment and also helps one integrate with the German society. Inadequate knowledge of the local language is, therefore, regarded as a serious challenge for many Indians studying in Germany.

Employment prospects

Results from the survey revealed that the possibility of overseas employment is one of the reasons for studying outside India, including in Germany. Most Indian students seek employment opportunities in the host country for two reasons. For one, a number of them view higher education abroad as a means of acquiring skills that are recognized internationally, which, consequently, increases their ability to compete in the international labour market. Thus, the very purpose of studying abroad is to find suitable employment, which offers good returns on their investment.³⁴ A second reason often is to repay financial obligations arising from educational loans. Often such employment is sought for short duration. However, the survey indicated that the possibility of employment (post studies) remains a serious concern for most Indian (and international) students. Seventy one percent of all respondents, based in Germany, cited concerns about the legal regime governing post-study conditions for employment of international students. Several also noted that language is a factor that can affect employment prospects in non-English speaking countries like Germany. As one Post-graduate student (pursuing a Master's degree in Real Estate Management) in Germany pointed out, adequate knowledge of the German language is essential for securing part-time as well as full-time employment in Germany.

The concerns over employment prospects also stem from other factors. The respondents in Germany (and also in other countries, such as France) cited the issue of unequal opportunities for international students as compared to European nationals. Some Indian students perceived a preference for host country and other European nationals to fill vacancies. Respondents indicated that the current rules in Germany concerning the employment of foreign graduates are complicated, unrealistic and reduce the opportunities available for Indian students. One student stated that many employers could not immediately offer permanent positions to well-performing Indian interns, as the rules required the advertisement for the (permanent) job vacancy to be available online for a minimum period, before considering a non-EU national for the same.³⁵ This was corroborated by a senior executive in Germany who noted that employing non-European workers may prove to be a time-consuming and costly venture for engineering firms, and the process is further complicated by bureaucratic barriers. Moreover, under the current rules, firms wanting to hire a foreign worker are first required to "prove that they (the firm) could

³⁴ http://articles.economictimes.indiatimes.com/2011-05-01/news/29491210_1_indian-students-uk-visa-rules (last accessed on 12.5.2012)

³⁵ This is indeed the case with most European countries, as employers (within the EU) must meet domestic search requirements which include advertising vacancies for a period of time before considering a non-EU national for the same.

not find someone suitable in the EU". The situation is further worsened by tall residency requirements, which allows visas to be issued (to non-EU residents) only if the (German) employer guarantees an annual wage of at least 46,400.³⁶ The current provisions are, therefore, seen to have serious bottlenecks, which inhibit the probability of finding employment for many Indian students.

Some respondents, however, pointed out that the employment prospects for Indian students may not be as difficult as often portrayed. With the growing presence of foreign companies, including German multinationals in India, and with the growing number of Indian companies having operations in Europe, there is likely to be increased demand for skilled Indians who have studied in these countries.³⁷ Moreover, there is the precedence of Green-card initiative undertaken by Germany (in 2000) to strengthen its Information Technology (IT) sector under which work permits were granted to nearly 5300 Indian IT specialists. India has been the biggest beneficiary of this latter initiative, with over 31 percent of all Green cards issued by Germany, under this scheme, being given to Indian professionals (Venema, 2004).³⁸

One positive development in this regard cited by several respondents and media reports is the recent adoption of a bill to launch the EU Blue Card, which provides "a new work and residence permit for international students". Among other features, the provisions of the bill are seen as offering "better prospects of gaining residency for foreign graduates, and lower income requirements for highly skilled workers (reduced from a minimum annual income of €66,000 to €46,400)."³⁹ By lowering residency requirements for international graduates and workers, the initiative is expected to attract more qualified immigrants and help Germany address the serious issue of shortage of skilled workers.⁴⁰ The Blue Card is, thus, expected to generate interest in students from India, although its effectiveness remains to be seen.⁴¹

Competition from Emerging Destinations of Higher Education

One of the biggest challenges facing Germany is the growing competition from other countries that are also seeking to attract foreign students. Though Germany has done well to attract the attention of Indian students, retaining its market share will be difficult in the face of growing competition from these other host countries, including several English speaking countries.

New English-speaking destinations such as New Zealand, Canada and Singapore have emerged, in recent years, as providers of higher education on a global scale and are

³⁶ <http://www.bluecard-eu.de/eu-blue-card-germany/working.html>

³⁷ <http://institutfrancais.in/content/study-france> (last accessed on 12.5.2012)

³⁸ From its implementation in 1st August, 2000 until 31st 2004, an aggregate of over 17,000 green cards were issued by Germany, of which, over 5,300 (or over 31 percent) were received by Indian professionals. For more information, see Venema (2004)

³⁹ <http://www.hindustantimes.com/HTEducation/Chunk-HT-UI-HTEducationSectionPage-Other-Stories/Indian-enrolments-soar-in-Germany/SP-Article1-798328.aspx> (last accessed on 12.5.2012)

⁴⁰ <http://www.dw.de/dw/article/0,15569182,00.html>(last accessed on 12.5.2012)

⁴¹ <http://www.hindustantimes.com/HTEducation/Chunk-HT-UI-HTEducationSectionPage-Other-Stories/Indian-enrolments-soar-in-Germany/SP-Article1-798328.aspx> (last accessed on 12.5.2012) and http://www.india.diplo.de/Vertretung/indien/en/_pr/Business_News/Blue_card_bill.html(last accessed on 12.5.2012)

aggressively recruiting students from important source countries.⁴² New Zealand and Canada have intensified their student recruitment efforts in India. Canada, in particular, has gained serious credibility in the Indian market by promoting itself as a destination with lower tuition rates and living costs, in addition to relaxed visa requirements. The regulation on post-study work permits is arguably Canada's most attractive feature, as foreign students in Canada are allowed up to a three-year work visa on completion of their studies. Evidently, such policies have had a strong impact on student mobility, as Canada issued nearly 12,000 student visas to Indians in 2010, compared to 3,152 in 2008.⁴³ A similar scenario is seen in the case of New Zealand, where favourable employment prospects have helped to attract Indian students to that country. Over 3,400 student visas were issued to Indian students in 2011. Recent media reports suggest that "India has become the largest source country for new international students in New Zealand".⁴⁴ Notably, India is now the second-largest source country of skilled migrants in New Zealand, with a market share of 13 percent.⁴⁵ Both Canada and New Zealand have been successful in attracting Indian students as they provide various academic and employment incentives to the students (discussed in further detail later). In turn, they have also benefited as these students have helped them to address their respective labour market shortages.⁴⁶

Germany also faces competition from emerging Asian host countries like Singapore, which hosts over 400 Indian companies and offers strong prospects of employment for highly skilled migrants from India.⁴⁷ Though these are upcoming markets and currently attract fewer Indian students, their geographical proximity to India and aggressive marketing in India has increased the options available to Indian students.

The trends outlined above clearly imply that emerging markets are able to influence student flows from India by offering a combination of incentives. Not only do they address the financial feasibility of pursuing higher education abroad, they also offer long-run prospects in the form of employment in upcoming Asian economies. In comparison to these markets, Germany (and other European markets) may fall short of student expectations.

The German Labour Market and Indian Migrants

The preceding discussion has highlighted how some countries, such as New Zealand and Canada, have been able to benefit from the participation of Indian students in their workforce. Hence, the internationalization of higher education has been used as a strategy to address labour market requirements in these countries.

⁴² <http://www.theinternationalstudentrecruiter.com/india-sending-and-competing/>(last accessed on 12.5.2012)

⁴³ <http://www.deccanherald.com/content/179460/indian-students-look-towards-canada.html> (last accessed on 13.5.2012)

⁴⁴ http://articles.economictimes.indiatimes.com/2011-01-31/news-by-industry/28423697_1_indian-students-international-students-largest-source(last accessed on 13.5.2012)

⁴⁵ http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10783070(last accessed on 13.5.2012)

⁴⁶ Canada is already a well-known destination for employment prospects as its labour force has the largest share of foreign workers (nearly 26 percent).

⁴⁷ http://www.moneycontrol.com/news/business/india-china-chamberscommercesingapore-sign-mou_532371.html(last accessed on 13.5.2012)

The issue is also pertinent to Germany. Like most developed European countries, Germany is characterized by declining birth rates and a low replacement ratio. The fertility rate in Germany stood at 1.42 (children per mother), below the replacement rate of 2.1 (2009-10 estimate).⁴⁸ Studies estimate that the working population is likely to drop from 50 million (in 2008) to 47.6 million by 2020, with only 10 percent of the workforce aged between 15-34 years (Constant and Tien, 2011). This combination of declining fertility rates and an ageing workforce, coupled with high rates of emigration from Germany, is expected to create a significant shortage in labour supply in the coming years. A shortfall of nearly six million workers has been projected by 2030 and this is expected to have severe ramifications for the future productivity and growth of the German economy.⁴⁹

In view of these trends, the need to attract skilled immigrants is increasingly being recognized. According to Sachverständigenrat (2011), medium and long-term migration will be important for addressing these demographic challenges. Under these circumstances, the presence of international students, especially from large source countries such as India, may help Germany in addressing its labour market requirements and also longer term international relations objectives. There is evidence to indicate that there is recognition of this potential in policy circles, as captured by the following quote:

"Winning over foreign students is how we will make friends and partners for the future. What is more, if we fail to increase the number of international students in Germany, we will be unable to maintain our academic system's excellence in light of demographic changes."

- Prof. Margaret Wintermantel (DAAD President)⁵⁰

The discussion that follows highlights the current structure of the German labour market, as well as its current and future (projected) labour demand and supply patterns across various sectors of its economy. The facts and figures clearly highlight the relevance of foreign participation in Germany's workforce and the potential role international student mobility from large source countries, like India, can play in this regard.

Skill shortages and gaps in the German labour market

While Germany's approach to managing immigration has been a cautious one, a recently conducted study by the European Migration Network (EMN) on labour demand in Germany states that there is awareness about the likelihood of labour shortages in Germany in the near future and a recognition of the likely difficulties in meeting "the growing demand for skilled workers and highly-skilled migrants on the basis of Germany's current labour potential". With growing concerns regarding the potential of highly-skilled workers (in Germany) to meet industry requirements, the Federal Cabinet reached an agreement (in 2007) regarding the possibility of additional demand for highly qualified immigrants in the short and long terms. In subsequent years, the German government has focused on managing immigration in a way that corresponds with labour market requirements. Recent policies have focused on incentivizing highly-skilled migrants to work in Germany and on

⁴⁸ <http://www.forbes.com/forbes/2012/0507/current-events-population-global-declining-birth-rates-lee-kuan-yew.html> (2009-10 estimate) (last accessed on 2.5.2012)

⁴⁹ <http://www.dw.de/dw/article/0,,15778948,00.html> (last accessed on 12.5.2012)

⁵⁰ <http://daadnews.org/daad/newsletter/46>

facilitating the access of foreign graduates to the German labour market. The main objective has been to make Germany more attractive to highly-skilled migrants.⁵¹

While there is no consensus on the magnitude of labour shortages, or the sectors experiencing a labour supply shortage, a number of industry-wide surveys and studies⁵² on the European labour market have attempted to estimate sector-specific shortages in the German labour market. The Talent Shortage Survey is a global, industry-wide survey, conducted annually by the Manpower Group, and is based on the views of several employers (spread across countries and territories) and provides the employers' perspective on the expected impact of labour shortages. The Talent Shortage Survey (2012) reported that 42 percent of all (surveyed) employers in Germany found it difficult to fill vacancies, indicating a severe labour shortage.⁵³ A worrisome factor is that this figure has been on the rise since 2008, when nearly 34 percent of employers in Germany reported difficulty in filling vacancies. Further, the survey reports that vacancies for workers in skilled trades, engineers and IT staff were among the most difficult to fill, thus suggesting a sector-specific shortage/skills-mismatch in these sectors.⁵⁴

A European Migration Network (EMN) study on labour demand in Germany had similar findings and reported that the highest number of job vacancies was listed for engineering jobs/positions between 2007 and 2008 (Heckmann et al., 2009:3).⁵⁵ The study also found that the rate of job vacancies in service-related industries was the highest between 2008 and 2009. By the end of 2009, job vacancies were reported to be the highest for the economic sectors of education and training (over 15 percent), homecare and residential facilities (over eight percent) and social work activities. A survey, carried out by the Institute of Employment Research, found that the highest decline in labour supply was recorded for mechanical engineering, electrical engineering and business services, between 2007 and 2008.⁵⁶

A recent study by Constant and Tien (2011) also examines trends which provide insights into the nature of labour demand in Germany. In particular, the study found that the

⁵¹ This refers to the action programme launched in 2008, titled, "Contribution towards securing the skilled labour basis in Germany by labour migration". The ordinance on access of foreign higher education graduates to the German labour market was passed on 9.10.2007 (Federal Law Gazette, pg 2337). For more information, refer to Parusel and Schneider (2010).

⁵² These include Constant and Tien (2011) and the UKBA Report on Estimating labour Shortages in Europe (2009).

⁵³ The figure for Germany is higher than the European (EMEA) average of 34 percent in 2012, and only exceeded by Bulgaria and Romania which reported acute shortages (of 51 percent and 45 percent, respectively).

⁵⁴ For more information, see The Talent Shortage Survey (2012).

⁵⁵ As cited in Parusel and Schneider (2010). The trends outlined in the EMN Report are based on employment/vacancy statistics collected from the Federal Employment Agency and the Institute of Employment Research. The job vacancy rate is the proportion of total number of job vacancies and the total demand for labour (the aggregate of gainfully employed persons and job vacancies).

⁵⁶ For more information, refer to Parusel and Schneider (2010).

In particular, the shortage of engineers in Germany appears to be pronounced in recent years, with another study estimating a shortage of 34,200 engineers in 2009, and a projected increase in this shortage by 48,300 engineers per year, between 2023 and 2027 (VDI/IW, 2010)(Constant and Tien (2011)).

demand for labour for new positions has been increasing since 2009. An analysis of vacancy-rates and unemployment revealed declining unemployment rates coupled with high vacancy rates observed in 2009. Such a trend implies the presence of structural unemployment or a skills-mismatch in the German labour market. A sector-wise analysis (based on vacancy length-in days-and unemployment rates) identified two categories of labour-related shortages. While sectors such as health sciences, natural sciences and electronic-related occupations exhibited labour shortages/excess labour demand, service-related occupations exhibited skill-mismatches.⁵⁷

Limited availability of employment/labour market statistics may prevent accurate estimates of current and projected labour shortages. However, as seen above, a number of studies on Germany's labour market identify similar trends in labour demand. Importantly, nearly all studies observe a growing labour shortage or skills-mismatch in service-related occupations. In the light of this information, labour shortages, coupled with the demographic challenges facing Germany, can be expected to create a deficit of skilled human capital in Germany, thereby necessitating adoption of various policies/measures to effectively manage its current and long-term labour market needs.

In view of an expected increase in the demand for skilled labour, the current approach of the German Federal Government is to place greater emphasis on education and training for highly-skilled workers residing in Germany and to raise female participation (as well as labour participation of older persons) in the workforce (Parusel and Schneider (2010)). In addition to these steps, well-managed immigration will play an important role in meeting labour market requirements. Germany's approach to recruitment of foreign nationals indicates a preference for highly-skilled migrants, as is also the case with other developed countries. The statistics on residence permits highlights this preference, as seen in Table 5, where residence permits issued to skilled migrants have steadily increased from 96 in 2008, to 177 in 2011.

TABLE 5
First permits issued by Germany to all foreign nationals for remunerated activities (by reason)

<i>Year</i>	<i>Remunerated Activities Reasons</i>	<i>Highly Skilled Workers</i>	<i>Researchers</i>	<i>Other Remunerated Activities</i>
2008	20,297	96	39	20,162
2009	16,667	119	94	16,454
2010	16,540	122	129	16,289
2011	18,659	177	167	18,315

Source: Eurostat statistics on Residence Permits.

Note: Seasonal workers have been excluded from the classification (above) as no foreign nationals were recruited under this category between 2008 and 2011.

⁵⁷ For more information, refer to Constant and Tien (2011).

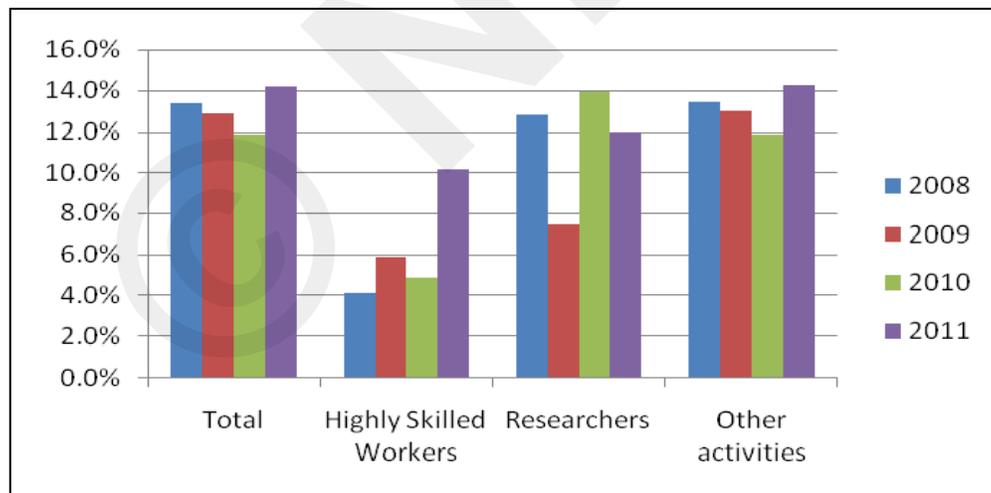
Potential role of Indian Migrants in Germany

While industry-specific statistics on the distribution of immigrants (who have graduated from tertiary German institutions) in the German labour market are unavailable, it is possible to draw inferences about the relevance of skilled Indian migrants based on statistics on Indian students and migrants residing in Germany. In particular, the current trends observed suggest that internationally mobile Indian students can potentially serve as an important source of skilled workers and, subsequently, increasing the intake of Indian students can facilitate the process of meeting sector-specific labour requirements. The following section examines the distribution of Indian migrants in detail to support this argument.

Contribution of Indian Migrants to the German Workforce

As seen earlier, Germany currently receives only a small share of all internationally mobile Indian students. This implies that the labour market's access to skilled Indian migrants, through the student route, is considerably limited. Despite the under-representation of Indians in the German higher education system, it is interesting to note that over 14 percent of all foreign nationals, who found employment in Germany in 2011, were of Indian origin, as shown in Figure 8. Further, as highlighted in Figure 9, India was the largest source country of all highly skilled migrants in Germany (after the US and Russia) and accounted for over 10 percent of all highly-skilled migrants in Germany in 2011.

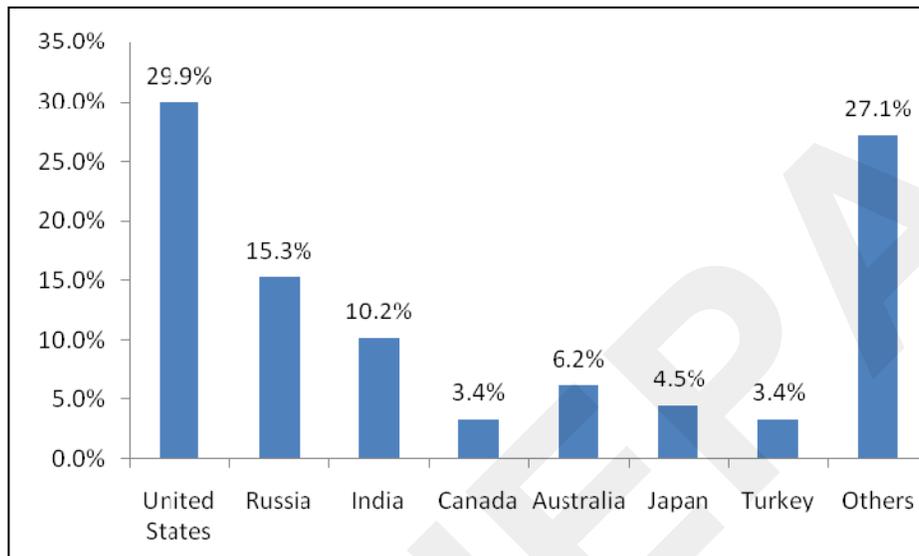
FIGURE 8
Indian Migrants as a share of all Foreign Nationals in the German Workforce



Source: Eurostat database on residence permits
http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database
 (last accessed on 10.2.2013)

Note: Figure 8 corresponds to Eurostat statistics on first permits issued for remunerated activities.

FIGURE 9
Highly-skilled migrants in Germany by country of origin in 2011



Source: Eurostat database on residence permits
http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database
 (last accessed on 5.4.2013)

Note: Corresponds to Eurostat statistics on first permits issued for remunerated activities for the category of Highly-skilled workers.

The statistics, thus, suggest that qualified Indian migrants assume an important position in the German labour market, as the largest source country of all foreign nationals employed in Germany, and as a key source of highly-skilled migrants in Germany. As skilled migrants from India contribute significantly to the German labour market, the German economy can benefit from widening the channels through which it attracts skilled Indian migrants into its workforce. An effective way of achieving this can be by attracting Indian migrants at an early stage, such as by increasing the intake of Indian students in German universities which would increase the availability of skilled Indian graduates in Germany. This would be mutually beneficial as it would improve the access of Indian graduates to the German labour market while also enabling Germany to meet its labour demand in shortage sectors, if post study conditions are made more conducive to such graduates in the German market. Further, such an approach would, simultaneously, also address concerns surrounding screening, quality, adaptation to the labour market and social and cultural integration that are typically associated with foreign workers.

Sector-specific Shortages

As stated earlier, the German labour market is likely to face shortages in Engineering, IT and Business-related occupations. The distribution of Indian students across the fields of study suggests that they are more likely to opt for these occupations, as the majority of them have pursued careers/professions (IT and engineering) since 2004, which are reportedly in

low supply.⁵⁸ This implies that a large share of Indian students, who graduate every year from German institutions, possess the knowledge and technical skills that are difficult to find in Germany. The popularity of engineering, IT and Business-related courses among Indian students offers another reason to increase intake in German universities.

Assuming that the current trend in student preferences will continue, greater intake of Indian students is likely to result in more Indian students opting for engineering and IT-related courses in German universities. In the long run, this could result in a larger number of skilled Indian immigrants opting to work in Germany and providing skills that are in high demand. Thus, a strategy of attracting more Indian students in such disciplines could help increase the availability of qualified/highly-skilled immigrants in shortage sectors. Such immigrants can then be absorbed to meet industry/labour market demand.

In this regard, there are useful lessons to learn from other countries such as Canada and New Zealand that have successfully adopted this approach towards higher education and immigration. In particular, New Zealand, a country that depends on immigration to support its economy, has stated in its Annual report on Migration Trends in New Zealand (2010/11) that immigration is important for addressing its labour market shortages and that international students are an important part of the process. Significant changes made to the *Study to Work Policy* in 2011 indicate New Zealand's preference for retaining skilled students as the Policy provides a link between highly skilled graduates and employers and provides a pathway to residence for these students. In recent years, New Zealand has implemented a number of steps to facilitate the participation of international students in its workforce. All international students are granted a Graduate Job Search Visa for a maximum period of 12 months for seeking employment. On securing a relevant job offer/employment (that qualifies for points under the Skilled Migrant Category (SMC)), a Graduate Work Experience Visa is issued for a maximum period of three years.⁵⁹ In 2010/11, India was the largest source country for all Graduate Job Search Visa approvals (52 percent) as well as Graduate Work Experience Visa approvals (2494 approvals/61 percent of all approvals).⁶⁰ Another study reported that Indian students in New Zealand had the highest transition rate (from studies to employment) of 72 percent, as well as the highest transition to permanent residence (47 percent) in 2010/11.⁶¹ Since points under the SMC are (exclusively) awarded for occupations facing labour supply shortages, the high transition rates of Indian students into New Zealand's labour market implies that Indian students are increasingly recruited to occupy positions that are difficult to fill in New Zealand. This suggests that the increased presence of Indian students has positively contributed towards meeting New Zealand's labour market requirements. Such country experiences suggest that a player such as

⁵⁸ In fact, the distribution of all internationally mobile Indian students across fields of study suggests that student preferences are skewed in favour of IT, engineering, and business-related courses; which are in demand in Germany.

⁵⁹ Qualifying for points under the Skilled Migrant Category is mandatory for this type of visa, and ensures that people migrating to New Zealand possess the necessary skills, qualification and work experience that are demanded in New Zealand.

⁶⁰ For more information, refer to the report on Migration Trends and Outlook (2010/11).

⁶¹ <http://www.hindustantimes.com/Indians-Abroad/IndiansAbroadnews/Indian-students-have-highest-transition-rate-to-work-in-New-Zealand/Article1-664357.aspx>
<http://www.woburn.co.nz/life-after-studying-as-an-international-student-in-new-zealand/>

Germany has the scope to look strategically at international students, especially from large source countries such as India, as an asset for its labour market.

Some policy suggestions

If the internationalization of higher education is to serve the long-term strategic interests of non-traditional host countries like Germany, then policies pertaining to the recruitment of foreign students, financial arrangements, post-study work conditions and visa regulations for foreign students and many other aspects of the higher education programme will need to be seen within the overall framework of labour and immigration policies. Higher education policies will need to be seen as a longer term tool for shaping bilateral relations with important partner countries, like India and China, for economic and other reasons. Available evidence suggests that Germany may be behind other host nations for foreign students in leveraging these linkages. The following discussion outlines some steps that could be taken by Germany to keep pace with other competing destinations and to develop a more integrated approach to inward mobility of foreign students.

As seen earlier, Germany attracts a relatively small share of all internationally mobile Indian students. Discussions with Indian students based in Europe during the course of the survey and examination of available information on publicity and marketing initiatives relating to higher education programmes in Germany suggest that one possible reason for Germany's relatively low visibility among Indian students may be the lack of awareness about pursuing higher education in Germany.⁶² Compared to Australia, the UK or Canada, which have been much more aggressive in marketing themselves as destinations for higher education, Germany has been much less visible in India. While the promotion of German higher education in India has increased in recent years, the frequency of events such as education fairs, which are used by most receiving countries to promote themselves, is still much lower than that for the UK, for example. There are periodic education fairs organized by the British Council across several cities in India. Thus, one of the strategies would be to invest more in promotional events by increasing their frequency and coverage (to include more Indian cities) so as to better inform prospective Indian students about academic possibilities in Germany.

Another way to attract Indian students in specific (shortage) sectors could be to increase academic and research collaborations with Indian universities through MOUs. In addition to the existing MOUs with institutes such as the Indian Institutes of Technology, recent initiatives like the establishment of the German House for Research and Innovation (DWIH) and the Indo-German Centre for Higher Education in India will strengthen research and academic exchanges between India and Germany. Such collaborations promote bilateral academic ties that can facilitate the transition of students to Doctoral and Post-Doctoral Programmes in Germany.⁶³ Increased availability of scholarships, funded by the two

⁶² For more information, refer to a study on Indian Students in Europe (2012).
<http://www.iimb.ernet.in/research/working-papers/indian-student-mobility-selected-european-countries-overview>

⁶³ DWIH is an undertaking of the German Government to promote bilateral projects on education, research, science, language and innovation. The Indo-German Centre for Higher Education is a consortium of German universities which facilitates the exchange of Indian and German students,

governments and by industry, especially companies interested in engaging in each other's markets, could also play a facilitating role. Besides, there is a need for bilateral agreements on the recognition of Indian degrees in Germany (and vice versa), as this has direct implications for the employment prospects of Indian students.

Insufficient knowledge of the German language is a serious challenge experienced by non-European students in seeking employment. Thus, the policy initiatives listed above must be supplemented by providing advanced language training at the university level. This can increase foreign students' exposure to the German language and, consequently, their employment prospects in the German labour market. Specifically, initiatives can be taken to provide Indian students with more opportunities to learn German while in India, such as in school, at the university level, through German language courses in India offered by DAAD, German Foundations working in India and language training institutes around the country. An earlier orientation to the language would help in reducing the cultural and linguistic barrier currently affecting the choice of Germany as a destination for higher education.

While the initiatives identified above can help Germany target the Indian student market more effectively, certain initiatives must also be undertaken at the national level to improve the country's attractiveness for highly skilled migrants. For one, an international comparison suggests that the current migration policy of Germany is not labour-oriented, as work permits constitute only 13 percent of total migration inflows from non-EU countries (Parusel and Schneider, 2011). The limited success of the Migration Policy is reflected by the fact that Germany has received a relatively small share of highly-skilled migrants.⁶⁴ A possible reason for this is the minimum wage requirements for non-EU migrants to qualify as highly-skilled migrants (HSM).

As per the EU Blue Card initiative, non-EU citizens can only secure a resident permit in Germany (as a HSM) if the (German) employer guarantees a minimum annual wage of 46,400 Euros.⁶⁵ Further, there is a preference for foreign nationals in shortage sectors as the income requirement is lower (36,192 Euros) for foreign nationals seeking employment in the fields of IT, Mathematics, medical doctors and natural sciences or technology. While this requirement has been reduced in favour of foreign graduates (the earlier requirement was 66,000 Euros), it is still significantly high and, as a result, most foreign graduates may be unable to meet this income requirement. Stringent requirements of this type increase the uncertainty associated with securing employment in Germany, and deter several prospective students from considering Germany for higher education. Thus, the income threshold for HSM must be reduced to improve the country's attractiveness for foreign students as well as highly skilled migrants.

to ensure that students can complete a part of the education (eg: 4th year of graduation) in Germany.

<http://www.germany-and-india.com/en/article/932>

<http://www.igche.de/>

⁶⁴ Germany has received under 800 highly skilled migrants since 2005 (Hufner and Klein (2012)).

⁶⁵ The EU Blue Card has been implemented in Germany from 1st August, 2012. A non-EU citizen can obtain the EU Blue Card based on adequate proof of his/her qualification and a concrete job offer, which ensures a (minimum) annual gross earnings of 46,400 Euros.

<http://www.bluecard-eu.de/eu-blue-card-germany/working.html>

Germany can also consider introducing a points-based system for managing non-EU migration, similar to the one adopted by the UK. As the eligibility of candidates is determined by conditions such as education, language skills and work experience (among other requirements), a points-based system can simplify the recruitment of foreign graduates (and non-EU migrants) and reduce the uncertainty otherwise experienced by them. Further, additional points could be awarded for graduates with a degree in shortage occupations (like Engineering and IT) and those graduating from German tertiary institutions. Such a system would reflect labour-market needs, improve the transparency of the recruitment process and favour the recruitment of foreign graduates in Germany, all of which can improve the attractiveness of Germany for higher education.

Overall, it is evident that although there is growing recognition of the potential role that international students can play in the German economy, much more could be done in terms of higher education policies and changes in other related areas to realize this potential. The interface between higher education and various dimensions of bilateral relations will need to be recognized in a more concerted manner. Going forward, with the likely signing of the India-EU Bilateral Trade and Investment Agreement (BTIA) in the near future, there is a need to contextualize student flows between India and major EU host countries such as Germany within the larger framework of promoting bilateral trade and investment ties, scientific cooperation, R&D, technology transfer, and social, cultural and political relations for the mutual benefit of both countries.

TABLE A.1
Internationally Mobile Students

<i>Year</i>	<i>World Total (in Mn)</i>	<i>Annual Growth (%)</i>	<i>International Students in Europe (in Mn)</i>	<i>International Students in Europe (Share in World Total)</i>	<i>Annual Growth (%)</i>
1999	1.635		0.86	52.6%	
2000	1.757	7.40%	0.912	51.9%	6.00%
2001	1.834	4.40%	0.98	53.4%	7.40%
2002	2.143	16.80%	1.064	49.7%	8.60%
2003	2.421	13.00%	1.208	49.9%	13.50%
2004	2.489	2.80%	1.246	50.1%	3.20%
2005	2.543	2.10%	1.274	50.1%	2.20%
2006	2.617	2.90%	1.297	49.6%	1.80%
2007	2.831	8.20%	1.358	48.0%	4.70%
2008	2.944	4.00%	1.421	48.3%	4.70%
2009	3.109	5.60%	1.483	47.7%	4.40%

Source: UNESCO database on International students at tertiary level (ISCED 5 and 6)
<http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx> (last accessed on 2.5.2012)

TABLE A.2
Share of (total) International Students in Major Host Countries

<i>Year</i>	<i>USA</i>	<i>UK</i>	<i>Australia</i>	<i>France</i>	<i>Germany</i>	<i>Canada</i>	<i>New Zealand</i>	<i>Japan</i>	<i>Others</i>
1998	47.0%	22.9%	11.9%			3.1%	0.6%	6.1%	8.4%
1999	27.6%	14.2%	7.2%	8.0%	10.9%	2.0%	0.4%	3.5%	26.2%
2000	27.0%	12.7%	6.0%	7.8%	10.6%	2.1%	0.5%	3.4%	29.9%
2001	25.9%	12.3%	6.6%	8.0%	10.9%	2.3%	0.6%	3.5%	29.9%
2002	27.2%	10.6%	8.4%	7.7%	10.2%	2.3%	0.8%	3.5%	29.2%
2003	24.2%	10.5%	7.8%	9.2%	9.9%	2.4%	1.1%	3.6%	31.3%
2004	23.0%	12.1%	6.7%	9.5%	10.5%	2.6%	1.7%	4.7%	29.2%
2005	23.2%	12.5%	7.0%	9.3%	10.2%	2.7%	1.6%	5.0%	28.5%
2006	22.3%	12.6%	7.1%	9.5%	7.9%	2.6%		5.0%	33.0%
2007	21.0%	12.4%	7.5%	8.7%	7.3%	3.3%	1.2%	4.4%	34.1%
2008	21.2%	11.6%	7.8%	8.3%	6.4%	3.2%	1.1%	4.3%	36.1%
2009	21.2%	11.9%	8.3%	8.0%	6.4%		1.2%	4.2%	38.7%

Source: UNESCO database on International students at tertiary level (ISCED 5 and 6)
<http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx> (last accessed on 2.5.2012).

TABLE A.3
Main Source Countries (% Share in Total International Students)

2000		2005		2009	
Country of Origin	Share (%)	Country of Origin	Share (%)	Country of Origin	Share (%)
China	6.6	China	15.6	China	15.9
Korea	4.0	India	5.4	India	6.2
Greece	3.6	Korea	3.9	Korea	4.0
Japan	3.4	Japan	2.5	Germany	3.0
Germany	3.0	Germany	2.2	Malaysia	1.7

Source: UNESCO database on International students at tertiary level (ISCED 5 and 6)
<http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx>
 (last accessed on 1.11.2011)

TABLE A.4
Distribution of Indian Students Across Host Countries

Year	USA	UK	Australia	Germany	France	Canada	New Zealand	Others
1999	72.9%	8.3%	7.8%	2.1%	0.3%	1.7%	0.2%	6.7%
2000	73.4%	7.4%	8.6%	2.4%	0.3%	1.8%	0.4%	5.6%
2001	80.8%	7.3%		2.4%	0.4%	2.2%	0.6%	6.2%
2002	73.3%	6.6%	10.5%	2.4%	0.3%	2.0%	1.0%	3.9%
2003	67.4%	9.4%	11.2%	3.1%	0.6%	2.2%	1.1%	5.0%
2004	63.3%	11.6%	12.5%	3.4%	0.4%	2.2%	1.3%	5.3%
2005	60.9%	12.1%	14.9%	3.1%	0.4%	2.0%	1.1%	5.5%
2006	58.1%	14.1%	16.4%	2.6%	0.5%	1.3%		6.9%
2007	55.6%	15.5%	15.9%	2.2%	0.6%	2.1%	1.6%	6.5%
2008	53.6%	14.7%	15.0%	1.8%	0.6%	2.0%	2.3%	9.9%
2009	53.2%	17.9%	13.9%	1.7%	0.7%		3.0%	9.6%

Source: UNESCO database on International students at tertiary level (ISCED 5 and 6)
<http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx>
 (last accessed on 2.5.2012)

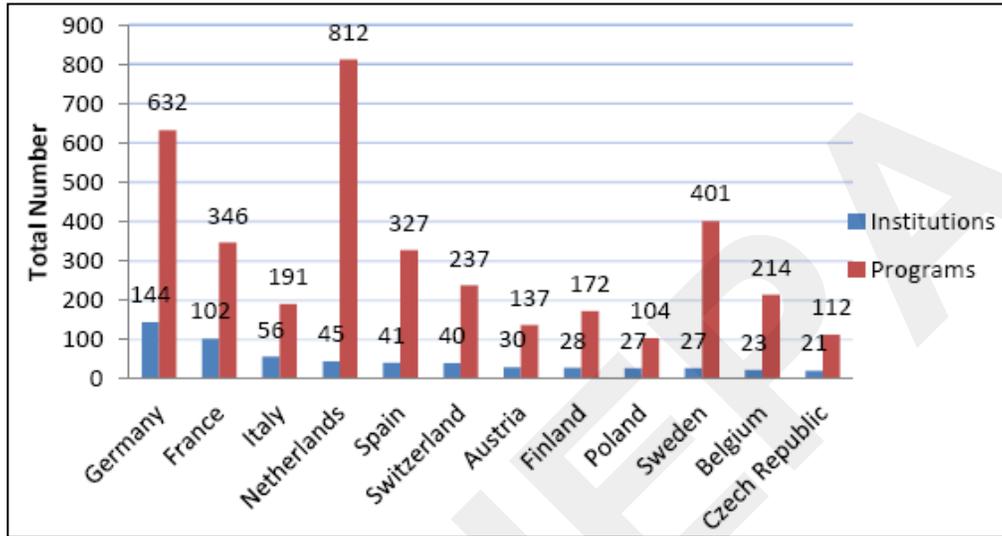
TABLE A.5
International Students in Germany: Top sending Countries: 2008-09

(Fig. in %)

Place of Origin	China	Turkey	Russia	Poland	Bulgaria	Ukraine	Austria	Italy	Morocco	France	All Others
Percent of Total	10.30	9.30	5.20	5.10	4.00	3.60	2.90	2.90	2.80	2.50	51.40

Source: Institute of International Education
<http://www.iie.org/Services/Germany/International-Students-In-Germany>

FIGURE A.1
Number of Institutions offering English-taught Programmes in Selected European Countries



Source: Reproduced from an Institute of International Education (IIE) report titled, “English-taught programmes in Europe: New findings on Supply and Demand”. www.iie.org/Research.../English-Language-Masters-Final.ashx (This Figure corresponds to Table 3 in the document, titled “Institutional Participation, number of Institutions offering English-Taught Master’s Programs and Total number of Programs”).

Note: The distribution exclusively refers to online searches in the website www.mastersportal.eu.
 # The information presented in the Figure (above) should be interpreted as follows: In the duration of the study (2010-2011), 144 institutions in Germany offered (an aggregate of) 632 programmes taught in English.

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Educational Deprivation of Children in India

— Insights from Recent National Level Household Survey

Kakoli Borkotoky*
Sayeed Unisa#

Abstract

This paper seeks to address three different aspects of children who were never enrolled. These are (a) the magnitude and characteristic of the “never enrolled” children in the 10-14 age group (b) whether there is any disparity in school enrolment and (c) the reasons for which children were never enrolled. The findings suggest that, although the percentage of never enrolled has declined over time, gender disparity continues to exist. The study has resulted in two important findings. These are, firstly, the urban poor has the highest risk of being never enrolled, and secondly, the presence of an adult literate female in the household results in increased enrolment. The study further confirms that household economic condition accounts for the highest contribution towards non enrolment, which, in turn, may lead children to be engaged in child labour.

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Introduction

India is currently going through the third stage of demographic transition in which it can benefit from the window of demographic opportunity. The window of demographic opportunity opened for India around the 1980s and will remain open till 2035. However, the demographic dividend cannot guarantee automatic economic growth. In order to utilise demographic dividend, countries must implement favourable policies while investing in key areas such as education, health and employment generation (Mitra et al, 2005). While India has the largest population in the K12 age group globally (Kindergarten to 12th grade), the worrying factor is that only 219 million children are enrolled across the country out of the eligible 361 million (Thornton, 2010). Transforming the increasing youthful population into a productive workforce requires heavy investment in education. In 1999–2000, Indian elementary education system was the second largest in the world, with 155.6 million children enrolled in the age group of 6-14 years. Simultaneously, India also has the world's largest number of out-of-school children (Chattopadhyay et al; 2009). Thus, a change in percentage of enrolment alone does not serve the purpose; it is also important to know as to how many are not enrolled.

School enrolment is yet to become universal in many of the developing countries. It is important to know as to why so many children fail to participate in school. Complete enrolment in school is a necessity for all countries to assist the process of economic and social development (Dostie et al, 2006). Although the number of primary schools in the country and enrolment into primary school has increased, successive governments have failed to make 'education for all' a reality (Banerji, 2000). In this regard, it becomes important to critically examine the discrepancies in school enrolment and the factors associated with it. It has also been observed that the greatest returns to education are achieved through the provision of elementary or even primary education (Sengupta, 2002). Primary level education may be an important factor in determining the opportunities available to individuals while entering the labour force. It is also important that primary education reaches the entire population. For this reason, children in primary school-going age need special attention.

Although the literacy level in India has improved over time there is still a long way to go before we can be compared with other developed nations. Further, the problem of school enrolment or attendance is not the same for all states within the country. Gender differentials in educational attainment also exist. Akila (2004), on the basis of his study, suggested that while repetition rates were slightly higher for boys than girls, discontinuation rate was observed to be high among girls. Several other studies concerning educational progress in India have indicated that levels of primary school enrolment did not improve much in India over time (Bhatty, 1998; Levy, 2001; Mohanty et al., 2004).

Perceptions of people may also differ on enrolment, drop-out and poor attendance rates at the primary level (Rana, 2004). Sometimes, parents may be responsible for not enrolling their children in school or discontinuing their studies. While, in some cases, the parents' poor financial condition may have added to their inability to provide education for their children, it was also observed that children of many families could not attend school because of family responsibilities. Besides, some families migrated out in search of work from season to season, which hampered their children's regular attendance in school. Medium of instruction also inhibits school enrolment and attendance. It was also observed that poor

households did not send their children to school for fear of losing children's income (Reddy, 2003). In rural and remote areas, the transportation cost may have an important bearing on school enrolment (Dostie et al, 2006).

Central government and many state governments introduced different programmes to bring out-of-school children to the main stream of education. UNICEF is working with the State Government of Bihar to introduce a new system of learning to the Residential Board Centers (RBCs) that will soon be implemented across the state. These 'special training' courses – known as Vertical Competency Based Learning (VCBL) – provide the foundation to meet the provisions of the RTE Act within the next five years, reaching all out-of-school children with the necessary on-site support required to succeed and complete their education (Gretarsson, 2010). The government, under the Right to Education Act, is set to provide children, who are either school drop-outs or have never been to school, with Special Learning Centre (SLC) where they will be trained according to their mental ability and brought into the mainstream. These children, aged 7-14 years, will be made part of the mainstream through 'bridge courses'. Hence, it will be useful to examine magnitude and pattern of children, who were never enrolled, from the perspective of policy and programmes. In this paper, children never enrolled in school are considered, more specifically among the youth of India, because it is difficult to bring them to the mainstream of education as they never had exposure to school as compared to those children who dropped out of school.

Data and Methodology

We have different sources of data available on educational performance at both India and state level. In this study, we use data from the third round of District Level Household and Facility Survey (DLHS-3)¹ covering the period 2007-08. The main advantage of this data set is that it provides household level information on educational attainment, which makes it possible to relate school enrolment/attendance status of individuals with socio-economic, household and other characteristics. The DLHS-3 survey covered a sample of more than seven lakh households from 601 districts of India. In addition to the information on school enrolment and years of schooling, DLHS-3 also collected information on reasons for having never enrolled for all the usual members. Other surveys, with information on enrolment and attendance, do not allow us to go beyond school level factors for analysis.

In this study, we use wealth index as an indicator of economic status of the household, derived from the information given in the dataset. The wealth index is computed at the national level by combining household amenities, assets and durables, and later divided into quintiles. First, each household is assigned a score for each asset generated through principal components analysis, and the scores summed up for each household. Second, the sample is divided into quintiles i.e., five groups with an equal number of individuals in each group. In our study, in certain places (Model 1 & Model 2), we reduced the five wealth index categories into three groups in order to have sufficient sample in each category after applying the required modifications.

¹ http://rchiips.org/pdf/INDIA_REPORT_DLHS-3.pdf

We examined the percentage of children never enrolled in the age groups (10-14) and (15-24) and the associated factors by applying appropriate bivariate and multivariate techniques. We considered two groups of children: one currently in school-going age and the other having crossed school-going age so as to compare changes in the level of children who were never enrolled in school. We applied Gender Parity Index to examine disparity in school enrolment at the state level and also for children from different socio-economic background. An index value below one indicates that the proportion of female never attended school is lower than the proportion of male who never attended school and *vice versa*. Further, we analysed the reasons of having never enrolled for children in 10-14 age group of different socio-economic backgrounds. We classified the reasons for having never enrolled under three headings as economic and social reasons, individual-related and school-related reasons. The details of the classification of different reasons are given at the end of Table 4.

Regression analysis has been applied to examine the influence of all socio-economic and contextual variables on 'never enrolled' in the 10-14 age group. The analysis is focused on 10-14 age group because it is the age when children are expected to attend school regularly; therefore it is important to examine the factors that keep children out of school. We set up four different logistic models, which included separate models by sex and place of residence. We created a new variable, identified as adult female literacy, to examine the impact of female literacy on school enrolment of children within the household. Place of residence is an important factor in determining accessibility to educational facilities. In our study, therefore, we apply separate logistic models to examine the factors associated with never enrolled children in rural areas. In some rural areas, primary schooling may be the highest level of education available and if an individual does not attend primary school, it will increase his probability of being illiterate for life.

Results and Discussion

The results of the study have been discussed in three parts. In the first part, we discuss the socio-economic differentials among children who were never enrolled. The second part discusses the state-wise variations and gender disparity in enrolment. In the third section, we discuss the factors affecting school enrolment and the reasons for never enrolled in school in the 10-14 age group.

Socio-economic Differential in School Enrolment

Percentage of never enrolled for male and female in the two age groups, along with the gender disparity index, is presented in Table 1. At the all-India level, one-fifth of females in the age group 15-24 were never enrolled, and this dropped to nine percent for the age group 10-14. In the case of males, the percentage of never enrolled dropped from 9 to 5 percent over time. It is also observed that the percentage of never enrolled is lower for males than females in both the age groups. At the same time, there exists striking differences in percentage of never enrolled for place of residence, irrespective of age and sex of the child. Although there is a difference in percentage of never enrolled, but the findings present impressive decline in never enrolled for females, in both rural and urban areas. For example, nearly one-fifth of rural females were never enrolled in school in the age group 15-24, which

gradually declined to nine percent in the 10-14 age group. Similarly, among urban females too, the percentage of never enrolled declined to half the level from the age group 15-24 to 10-14. Thus, it may be said that people are according equal importance to educating their daughters as well.

TABLE 1
Pattern of Change in the Percentages of Children Never Enrolled, 2007-08

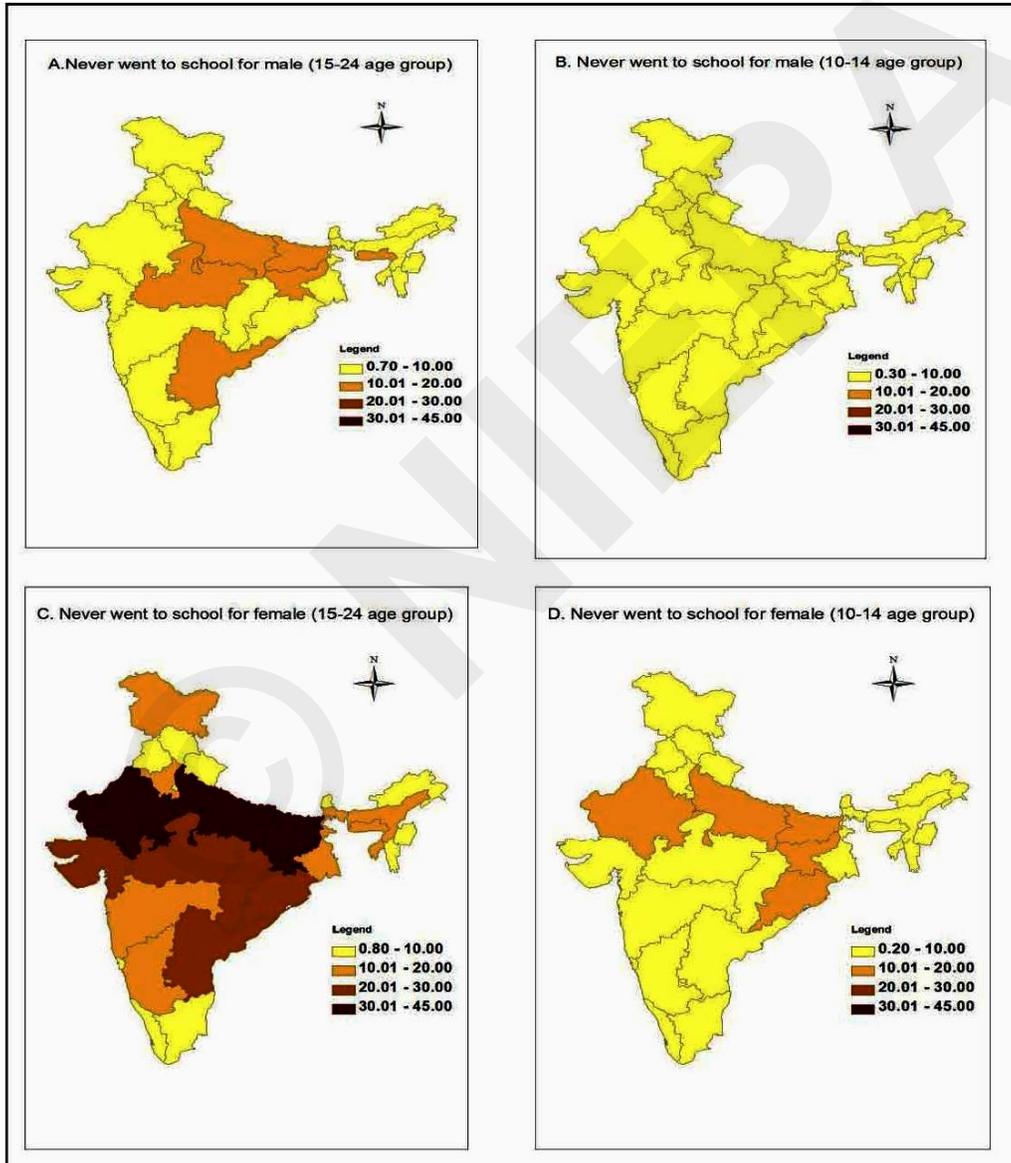
<i>Background Characteristics</i>	<i>10-14</i>		<i>15-24</i>		<i>Gender Parity Index</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>10-14</i>	<i>15-24</i>
Place of residence						
Rural	5.3	9.7	8.9	24.3	1.8	2.7
Urban	4.2	5.4	5.9	10.5	1.2	1.7
Religion						
Hindu	4.4	8.1	7.3	20.5	1.8	2.8
Muslim	9.4	13.0	12.8	25.4	1.4	2.1
Christian	2.8	4.1	5.1	8.0	1.4	1.4
Others	4.0	6.3	7.1	11.9	1.4	1.5
Caste Group						
Scheduled Caste	5.6	9.4	9.6	24.3	1.6	2.6
Scheduled Tribe	7.3	11.7	10.8	24.7	1.6	2.2
Other Backward Classes	4.8	9.2	8.1	22.4	1.9	2.9
Others	3.0	4.1	4.4	10.0	1.3	2.2
Wealth Quintiles						
Poorest	12.6	21.5	22.5	50.5	1.7	2.3
Second	6.4	11.2	12.4	34.3	1.7	2.8
Middle	3.3	5.8	7.2	20.1	1.8	2.8
Fourth	2.2	2.8	4.2	10.1	1.3	2.5
Richest	0.8	1.3	1.4	2.6	1.6	1.8
Total	5.0	8.5	7.9	19.9	1.7	2.5
Total number of children	11726	19605	31517	79429	-	-

Significant differences in school attendance by age and sex are also observed for different categories of religion and caste groups. It is to be noted that among Muslims, one-tenth of children (both male and female) in the 10-14 age group reportedly never attended school. A similar pattern of never enrolled is seen for females belonging to the Scheduled Caste and Scheduled Tribe category. However, males, belonging to Scheduled Caste and Scheduled Tribe account for a better performance in this regard as compared to Muslim males. Although there has been a decline in the percentage of never enrolled from the age group 15-24 to 10-14 among these caste and religion groups, immediate emphasis should be laid on bringing them to the education mainstream.

The results of the analysis indicate that people belonging to poorest wealth quintile are the most deprived in terms of school enrolment. Further, within the same category of wealth quintile too, sex differences in school attendance are visible. In the 15-24 age group, more than half the females belonging to poorest wealth quintile never attended school. This figure is more than double the percentage of males who never attended school in the same wealth quintile category. In the 10-14 age group, even though the gap between male and female

never attended has reduced, the percentage is comparatively high for females. Rich-poor disparity, in terms of percentages of never attended school, is implicit from the figures obtained for both males and females in both the age groups.

FIGURE 1
State-wise Pattern of Never Enrolled for Male and Female, 2007-08



Note: Nagaland is not included in the analysis due to unavailability of data for the state from DLHS-3 survey.

The values obtained for the index of gender disparity also support the fact that, in all categories of religion, caste, wealth quintile and residential background, higher proportion of female were never enrolled as compared to males. The values also suggest a decline in gender disparity from 15-24 to 10-14 age group in all related background characteristics considered for analysis. However, the highest value is obtained for other backward classes in both the age groups.

State-level Pattern of Never Enrolled

State-level pattern of never enrolled in the age groups 10-14 and 15-24 are shown in Figure 1. Figure A presents the pattern of never enrolled for males in the 15-24 age group while Figure B presents the percentage of never enrolled for males in the 10-14 age group. The pattern of never enrolled for males in the 15-24 age group shows that the states of Uttar Pradesh, Bihar, Jharkhand, Madhya Pradesh from North and Central India; Meghalaya from North-East India and Andhra Pradesh from South India had 20-30 percent of children who were never enrolled from the 15-24 age group. This declined to less than 10 percent for the 10-14 age group. All other major states have more or less similar pattern for both the age groups.

A somewhat different scenario has been observed in the case of females. Figure C and Figure D present the pattern of never enrolled for females in the 15-24 and 10-14 age groups respectively. A considerably higher percentage of females (30-45 percent) has been out of school in the states of Uttar Pradesh, Rajasthan, Bihar and Jharkhand from the 15-24 age group. Other states to follow these two states are Gujarat, Madhya Pradesh, Chhattisgarh, Orissa and, together, constitute the entire North and Central India. On the other hand, only one state from South India viz. Andhra Pradesh has reported a high percentage for females who have never enrolled. States having a comparatively better position are Arunachal Pradesh, Manipur, Mizoram, Himachal Pradesh, Punjab, Uttarakhand, Tamil Nadu and Kerala with percentage of never enrolled being within 10 percent. Further, with regard to the 10-14 age group, almost all states have registered an increase in enrolment of females. Andhra Pradesh, Chhattisgarh, Gujarat and Madhya Pradesh have joined the list of states with percentage of never enrolled falling within the limit of 10 percent. This is a sign of improvement in female school attendance. If this trend continues, we may expect a further reduction in the percentage of never enrolled in these states. At the same time, it is also important to mention that the situation in the states of Rajasthan, Uttar Pradesh, Bihar, Jharkhand and Orissa needs special focus. These states, which, together, account for a major share of India's population, have one fifth of their female population in the 10-14 age group out of school. It is also observed that over time, while the gap between never enrolled males and females has declined, a comparatively higher percentage of females has reportedly never attended school as compared to males in all the states.

Gender disparity in enrolment among the states has been examined with the help of Gender Parity Index (GPI) and the results are presented in Table 2. States are classified into three groups as high literacy, medium literacy and low literacy states, as per the literacy rates of 2001 census. GPI 1 and GPI 2 represent gender disparity in 10-14 and 15-24 age groups respectively. In the majority of the states, we observed a decline in gender disparity from age group 15-24 to 10-14. It is an indication that enrolment of female into school has

increased over time. Although there is a decline in overall gender disparity, we observe that disparity still exists even in high literacy states like Delhi and Goa in the 10-14 age group. Among the high literacy states, only Kerala has a higher share of females in school enrolment. In the medium literacy group, Himachal Pradesh, Punjab and Sikkim are in a better position in so far as female school enrolment is concerned. Gender disparity still exists in the remaining states from the medium literacy group. For example, in Haryana and Chhattisgarh, the number of females, who were never enrolled, is double that of males. Out of the low literacy states, the highest disparity has been observed for Jammu & Kashmir, Rajasthan and Bihar. All these values indicate that gender disparity in enrolment still exists in almost all states with some degree of variation, and requires immediate attention.

TABLE 2
Gender Disparity in Never Enrolled by State, 2007-08

	GPI 1(10-14)	GPI 2 (15-24)
Low Literacy States (Literacy rate below 64.8%)*		
Andhra Pradesh	1.7	2.5
Arunachal Pradesh	1.9	1.1
Assam	1.4	1.6
Bihar	1.9	3.2
Jammu & Kashmir	2.8	3.7
Jharkhand	1.8	2.4
Madhya Pradesh	1.3	2.5
Meghalaya	1.0	0.9
Orissa	1.9	2.7
Rajasthan	2.3	3.3
Uttar Pradesh	1.6	2.8
Medium Literacy States (Literacy rate 64.8% - 80%)*		
Himachal Pradesh	0.9	1.7
Punjab	0.9	1.3
Uttarakhand	1.6	2.2
Haryana	2.0	2.4
Sikkim	0.9	1.4
Manipur	1.7	1.2
Tripura	1.5	3.2
West Bengal	1.2	2.2
Chhattisgarh	2.1	3.1
Gujarat	1.6	2.4
Maharashtra	1.3	2.6
Karnataka	1.6	2.1
Tamil Nadu	1.2	2.6
High Literacy States (Literacy rate 80% & above)*		
Delhi	1.2	1.1
Mizoram	1.0	1.1
Goa	1.3	1.5
Kerala	0.6	1.2
India	1.6	2.5

GOI: Gender Parity Index. * Based on Census of India, 2001

Factors affecting School Enrolment

We examined the likelihood of never enrolled for children in 10-14 age group with the help of different logistic regression models and the results are presented in Table 3. The most significant finding from the analysis is that the urban poor have the highest probability for not being enrolled in school. This probability is, in fact, even higher than children living in rural areas with poor economic status. This finding has emerged from the models that examine interaction effect as an independent predictor for school enrolment (i.e. Model 1 & Model 2). Thus, it may be said that interaction of place of residence and economic status exerts a greater influence on school enrolment as it has been observed that poor people, particularly from the urban areas, are the most underprivileged when it comes to enrolling their children in school. Further, the rich-poor gap in never enrolled is clearly observed within the rural areas itself (Model 3 & Model 4). Here, estimated probabilities of never enrolled are very high in lower wealth quintiles (more than 10 times) than the richest wealth quintile for both males and females.

Apart from the economic differential in enrolment, the results of the analysis indicates the very motivating fact that the presence of a literate female in a household may significantly increase the chances of enrolment for a child. This has been observed in all four models (i.e. Model 1, Model 2, Model 3 & Model 4). On the basis of the results, we may say that when mother is literate, the child has a higher probability of enrolment. Significant decline in the likelihood of never enrolled has been observed even if the literate female is any other member of the family but not necessarily mother of the child. These findings clearly indicate the importance of female literacy in achieving better education of children.

We further examined some infrastructure related variables to assess their relation with enrolment, with special focus in the rural areas. The results suggest that all weather road connectivity to the nearby areas has a significant association with enrolment of children. Thus, it may be inferred that if rural areas are well connected to the nearest town or the place where the schools are located, the percentage of never enrolled is most likely to come down.

Among the other characteristics, it was observed that Muslims have the highest never enrolled probabilities, while Christians and other religions are less likely to be never enrolled in school as compared to Hindus. In the case of caste groups, 'others' was considered as the reference category. From the results, it may be inferred that all the major caste groups i.e. Scheduled Caste, Scheduled Tribe and Other Backward Classes show higher probabilities of never enrolled for both the genders as compared to their respective reference category.

TABLE 3

Odds Ratio for Never Enrolled in School in 10-14 Age groups by Sex, 2007-08

<i>Background Characteristics</i>	<i>Total</i>	<i>Total</i>	<i>Rural</i>	<i>Rural</i>
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>
Religion				
Hindu [®]	1.000	1.000	1.000	1.000
Muslim	3.093***	2.474***	3.406***	2.683***
Christian	0.757***	0.612***	0.750***	0.668***
Others	1.077	0.889**	1.128	0.866**
Caste				
Scheduled Caste	1.691***	1.911***	1.660***	1.813***
Scheduled Tribe	2.466***	2.639***	2.181***	2.462***
Other Backward Classes	1.230***	1.778***	1.229***	1.806***
Others ^(R)	1.000	1.000	1.000	1.000
Combined effect of Residence & Wealth Quintile				
Rural Poor	3.012***	4.141***	-	-
Rural Middle	0.916	1.403***	-	-
Rural Rich	0.574***	0.650***	-	-
Urban Poor	6.259***	5.672***	-	-
Urban Middle	2.548***	2.375***	-	-
Urban Rich [®]	1.000	1.000	-	-
Adult female literacy				
No adult female is literate [®]	1.000	1.000	1.000	1.000
Mother is literate	0.175***	0.117***	0.211***	0.131***
Mother illiterate but other adult women is literate	0.520***	0.519***	0.536***	0.498***
Wealth Quintile				
Poorest	-	-	10.234***	11.242***
Second	-	-	5.197***	5.642***
Middle	-	-	2.277***	2.894***
Fourth	-	-	1.578***	1.361***
Richest [®]	-	-	1.000	1.000
Primary school available in Village				
Yes [®]	-	-	1.000	1.000
No	-	-	0.944	1.088**
Distance to the nearest town				
Within 5 km [®]	-	-	1.000	1.000
5-10 km	-	-	0.993	1.009
More than 10 km	-	-	0.964	1.008
All weather Road Connectivity				
Yes [®]	-	-	1.000	1.000
No	-	-	1.276***	1.382***

Significance level: ***p<0.01, (R): reference category

Note: a) Model 1: odds ratio for male

b) Model 2: odds ratio for female

c) Model 3: odds ratio for male in rural areas

d) Model 4: odds ratio for female in rural areas

Main Reasons for never Enrolled in School

We analysed the main reasons of never enrolled available in DLHS-3. To get a clear picture of the whole mechanism, we classified different reasons into three different categories, considering those reasons having similar connotation under the same heading, with the results indicated in Table 4. On the basis of the results, it may be averred that in the 10-14 age group, children belonging to different socio-economic strata were never enrolled in school mainly on account of economic and social factors. Out of the total number of children who were never enrolled, over three-fourth reported economic condition of the household as the main obstacle for school enrolment. Economic and cultural reasons may also be a pointer towards some element of child labour as well. Children have to work either in the family or outside for earning money to support their family. Further, it is observed that a higher percentage of females reported economic and social reasons than males as the main barrier in school enrolment. It may happen due to the fact that in poor families, girls may have to stay back at home to take care of their younger siblings or help their mothers in household activities to enable the latter to fully devote themselves to wage earning work outside home. In some families, education of the girl child may not be considered necessary as well.

The analysis suggests that economic and social reasons account for the highest contribution in never enrolled. Consequently, the economic and social reasons was further examined in detail, with the results indicated in Table 5. It was observed that the economic condition of the household plays the most important role in enrolment. Nearly one-third of the children were never enrolled due to the high cost of schooling, which the household could not afford. Further, it has been observed that there is a clear distinction on how different social and economic conditions influence enrolment for boys and girls if we check it in terms of numbers. Girls are never enrolled when education is not considered necessary; they are required for household work, and for taking care of their younger siblings. On the other hand, boys are not enrolled because parents may wish to engage them in the family business or work outside home to augment family income.

The second most important factor, that has emerged from the study, is the lack of interest in studies which has been classified under individual related reason of never enrolled. It is significant that lack of interest has been reported for over 16 percent of children in the 10-14 age group as also for more girls than boys. On the other hand, the distribution of children according to reasons of never enrolled suggests that a higher percentage of boys reported lack of interest compared to girls. In this context, it is also important to see as to who is taking the decision about the interest of the individual. Sometimes, the child may be more interested in some extra-curricular activities. It is also important that the child is trained according to his/her area of interest.

A significant proportion of children also reported some school-related factors as an obstacle for enrolment in school. These reasons included inaccessibility of schools and lack of proper facilities for girls. These factors have a comparatively greater impact on rural children, which may be a reason that a higher percentage of children from rural areas are never enrolled. In this regard, it may be stated that proper infrastructure at school level may help increase enrolment of girls, in particular, and children from rural areas, in general.

TABLE 4
Main Reasons for Never Enrolled in School in 10-14 Age group by
Background Characteristics, 2007-08

<i>Background Characteristics</i>	<i>Total</i>			<i>Male</i>			<i>Female</i>		
	<i>Economic</i>	<i>Individual</i>	<i>School</i>	<i>Economic</i>	<i>Individual</i>	<i>School</i>	<i>Economic</i>	<i>Individual</i>	<i>School</i>
Place of Residence									
Rural	75.8	16.3	7.9	71.5	21.8	6.7	78.1	13.2	8.6
Urban	80.0	16.4	3.7	75.7	21.8	2.5	83.4	12.0	4.6
Religion									
Hindu	75.9	16.7	7.4	71.2	22.8	6.0	78.4	13.4	8.2
Muslim	77.9	16.1	6.0	74.8	20.8	4.5	80.3	12.6	7.1
Christian	75.5	15.4	9.1	72.1	18.2	9.8	77.8	13.6	8.6
Others	81.5	11.7	6.8	77.7	16.4	5.9	84.0	8.7	7.4
Caste Group									
Scheduled Caste	77.3	16.5	6.2	73.8	21.7	4.5	79.5	13.4	7.1
Scheduled Tribe	75.2	15.5	9.2	70.9	20.3	8.9	77.9	12.7	9.5
Other Backward Classes	77.9	16.1	6.1	73.1	23.0	4.0	80.4	12.4	7.2
Others	73.9	18.7	7.4	71.1	23.2	5.7	76.1	15.1	8.8
Wealth Quintiles									
Poorest	76.9	14.8	8.3	73.2	19.6	7.2	79.1	11.9	9.0
Second	76.3	17.5	6.2	72.3	23.3	4.4	78.6	14.2	7.3
Middle	76.6	18.0	5.4	71.7	24.3	4.0	79.4	14.4	6.2
Fourth	76.3	18.4	5.3	71.6	24.5	3.9	80.0	13.6	6.3
Richest	74.8	19.0	6.2	65.3	30.2	4.5	79.4	13.6	7.0
Total	76.6	16.3	7.1	72.5	21.8	5.7	79.1	13.0	7.9
Total number of children	21620	4638	2113	7455	2266	626	14165	2372	1487

Economic : Economic and Social Reasons, Individual: Individual - Related Reasons,

School : School-Related Reasons

Note: E) Economic and Social Reasons: Education not considered necessary, Required for household work, required for work on farm/family business, required for care of sibling, required for outside work for payment in cash or kind, cost too much.

I) Individual-Related Reasons: Not interested in studies

S) School-Related Reasons: School too far away, transport not available, No proper school facilities for girls.

TABLE 5
**Economic and Social Reasons for Never Enrolled in School in
 10-14 Age-group**

<i>Economic and Social Reasons for never enrolled in school</i>	<i>Male</i>	<i>Female</i>
Education Not Necessary	22.7 (1746)	24.5 (3509)
Household Work	19.8 (1503)	30.6 (4381)
Work On Family Business	10.6 (818)	5.4 (783)
Outside Work	11.8 (857)	5.7 (793)
Cost Too Much	34.0 (2449)	30.3 (4191)
Care of Siblings	1.1 (83)	3.5 (512)

Note: Figures in the parenthesis give the number of children

Conclusions

In this study, we examined the pattern for never enrolled in the age groups 10-14 and 15-24 with the realization that these two age groups have the maximum potential in terms of contributing towards the window of demographic opportunity. The study comes out with the finding that the percentage of children never enrolled dropped considerably from age groups 15-24 to 10-14 but still the percentage remains significantly high. This is in line with the findings of National Sample Survey Organisation (NSSO, 2007-08) which also indicates that in the 5-29 age group, nearly 47 percent of the population is not enrolled in school. As per the District Information System on Education (DISE, 2009-10), there has been an increase in national Net Enrolment Ratio (NER) between 2005-06 (84.53%) and 2009-10 (98.28%). Even after the reductions in percentage of never enrolled, the magnitude will remain high if we consider the projected population in the 15-24 age group for India. According to the population projections for India, the 10-24 age group in 2011 has 358,342,000 persons of which 187,078,000 are males, and 171,264,000 are females. This large share of the population will remain unutilized if they are never enrolled in school and consequently this will increase their chances of remaining illiterate for life.

The most important finding of the study is that the urban poor have the highest probability of never being enrolled in school. However, urban poor may have a different problem of not enrolling into the school. Either they may be doing petty jobs to support the family or they have to take care of their younger siblings. In case of rural areas, all weather road connectivity emerges as one of the important factors affecting enrolment. This indicates the importance of infrastructure-related facilities in the rural areas. Hence, we may say that plans and programmes need to be carried out accordingly, as per the needs of different segments in the society.

Although the trend of never enrolled has declined, gender disparity in school enrolment still exists even in the high literacy states. Among the major states of India, gender disparity in enrolment is highest in the states of Jammu & Kashmir, Rajasthan, Chhattisgarh and Haryana. Improvement of female education in these states calls for innovative strategies. The provisional result of DISE (2009-10) also reveals gender disparity in enrolment at primary level. Among all these odds, the most encouraging finding is that the presence of an

adult literate female in a household increases the chances of enrolment for a child from that household. Here, we may say that equal opportunity to participate in education will not only increase the share of females in school attendance but also ensure a better upbringing for children by creating a healthier environment to acquire more schooling.

In addition to changes in percentage never enrolled, we may be able to answer some of the important questions like, what may be the possible reasons that children are not enrolled in school. We may say that school enrolment is dependent largely on the economic condition of the household. The dominance of economic reasons is comparatively high in the case of females. This finding is supported by some earlier studies (Reddy et al., 2003; Dostie et al, 2006), which also observed that household and individual characteristics are an important determinant of enrolment for females. This further indicates that girls have to stay at home because in poor households, parents may not give equal importance to the education of a girl child. In addition, parents may prefer their daughters' to take care of their younger siblings and assist the family in other domestic works rather than going to school. It also implies that child labour still exists in society in some form or the other. Here, we may propose that provision of early childhood care centre may be helpful in bringing more girls to school. Further, it is suggested that more emphasis should be laid on reducing the cost of education and making it affordable to all sections of society to enable more and more children to be benefitted from attending school. In addition, increasing the accessibility of schools, particularly in rural areas, may be another challenge for the nation.

It becomes difficult to bring children into the formal stream of education if they never had the exposure of school until the age of 10 years. According to the projected figure for 2011, children in the age group 10-14 constitute nearly 10 percent of the total population of India. If this large share of the population is to be productively employed in the future, then preparations should start from their early ages. The first step would be to enroll each and every child into school. The introduction of the Right of Children to Free and Compulsory Education (RTE) Act of 2009 means that all children in India are legally guaranteed their right to quality primary education. The challenge now is to ensure that every child is not only enrolled in elementary school but also completes at least eight years of child-centered, child-friendly education.

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NATIONAL UNIVERSITY OF EDUCATIONAL PLANNING AND ADMINISTRATION

(Declared by the GOI under Section 3 of the UGC Act, 1956)

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Loan Financing to Higher Education

—Experiences of Bank Financing in a Less Developed Region

Sailabala Debi*

Abstract

The paper attempts to examine the financing of higher education through bank loans in the context of a less developed state (Odisha). The state spends 0.60 per cent of its GSDP on higher education which is grossly inadequate. The paper, through an empirical survey, found that (i) loan has increased the inequality in access to higher education, (ii) the amount of default of loan is found to be higher when the economic status of the households is better, (iii) the return to education of the loan holders is found to be higher as compared to the return of the same education without loan. The paper suggests loan financing of higher education as one of several alternatives of financing higher education, with some precautionary measures, in the context of present fiscal stringency.

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Introduction

Education is widely accepted as a basic human right. The goal of achieving UEE (Universalisation of Elementary Education) is now at the forefront of international policy agenda, particularly in the context of Globalisation and MDG (Millennium Development Goal). The Government of India and all the state governments have also taken up this agenda seriously and are striving hard to achieve the goal. One cannot, however, ignore the role of higher education, in general, and technical higher education, in particular, to meet the competing challenges of Globalisation. Even within the education sector, relative priority assigned to higher education has been on the decline. It is to be realized that higher education institutions play an important role in setting the academic standard for primary and secondary education. They are also responsible for not only providing the specialized human capital in order to corner the gains from globalisation, but also for training the manpower in the country, provide policy advice and so on. While education is necessary for development, higher education is essential for sustainable development. The role of higher education in influencing the socio- economic indicators is shown in Table 1.

TABLE 1
Higher Education and Development

<i>Correlation between</i>	<i>GER (54)</i>	<i>HEA (34)</i>
	AND	
HDI	0.603	0.552
GDI	0.635	0.552
GEI	0.606	0.654
LEB	0.526	0.541
IMR	-0.461	-0.461
TFR	-0.567	-0.475
Poverty international	-0.566	-0.299

GER= Gross enrolment ratio, HEA = higher education attainment (% of people with higher education), Figures in the bracket are the number of countries.

Source: Tilak (2003).

The correlation values show that all the indicators are significantly related to higher education in terms of gross enrolment ratio and the higher education attainment. This shows the importance of higher education in influencing social and economic development.

The resources allocated to achieve the goals of education are found to be always falling short of the need. Education is also considered as a tool for enabling students with the right professional qualifications get employment before completing their College education. These professional courses are too expensive for many parents to afford, particularly in a less developed country/region. With expensive professional education becoming mandatory for entry into the assured job market, student/education loan¹ schemes seem to be the most effective way to help students go in for expensive technical higher education. Moreover,

¹ There is no difference between the terms 'education loan' and 'student loan'. In the Indian context, both the terms are used interchangeably. In foreign countries, the term 'student loan' is usually used. The paper has used both the terms.

students are likely to be in a position to repay these loans over a period of time with the high salaries they would get immediately on qualification. Presently, education loans are among the fastest-growing retail banking products. Almost all the public and private sector banks are offering education loans at attractive rates of interest for meritorious and needy students for studying in India as well as abroad.

In respect of funding pattern in the education sector by the government, it is observed that primary education is given the major share of resources by the government to achieve the goal of UEE (Universalisation of Elementary Education) within the stipulated time. The balance of resources earmarked for education is shared between secondary and higher education. In view of the recent declaration of Universalisation of Secondary Education, the share of resources after the primary level goes to secondary education while the resources allocated to higher education, which one may call as the residual sector of education, is the lowest within the education sector.

It is also observed that Government hardly spends less than one percent of the GNP (Gross National Product) on higher education. In 1950-51, 0.19 per cent of GNP was spent on higher education and it increased to 0.4 per cent of GNP in 2004-05, which is much below one per cent. This is largely attributed to the introduction of structural adjustment policies (in early 1991) which included macro-economic stabilization and adjustments wherein a fiscal squeeze is experienced in almost all the sectors, with the social sector, particularly education and health, the worst affected. Since both primary and secondary educations are prioritised in budgetary allocation, higher education is the worst affected sector, particularly with the shrinking of budgetary allocation. On the one hand, the demand for higher education has increased over time and, on the other, the allocation of resources was either cut or was grossly inadequate for this level of education. This has resulted in a mismatch between the demand for higher education and the growth of government budget, particularly after 1990s. This is not only the case in India but in many other developing countries as well. According to UNESCO, during 1990s, 70 (63%) out of 111 countries reduced their share of public spending on higher education and 82 per cent of them (34 out of 41) were only from developing countries. Sanyal and Martin, (2006) observed that while some developing countries, which had given attention to basic education during the past decade, could focus on higher education, the majority of them had, however, reduced their share in higher education. As the number of gross enrolment expanded substantially, the funding per student from the government had decreased substantially as well. Thus, whereas the situation had happened all over the world, it was worse in developing and transitional countries. Thus, in the overall context of (a) growing budget constraints in education, and (b) growing evidence in favour of priority for lower levels of education as against higher education, several influential reports and renowned academicians² argued strongly for reducing public subsidies in higher education. For example, the World Bank, as a promoter of an integrated world economy, outlines its objectives on financing higher education as: (i) to recover the public cost of higher education and reallocating government expenditure towards primary level with higher social returns; (ii) to promote student loans through the development of a credit market with selective scholarships, especially in higher

² George Psacharopoulos (1973) showed that the return to primary education is more than that of higher education, arguing in favour of reducing the extent of subsidisation as one climbs up the education ladder.

education; and (iii) to decentralise the management of public education and encourage the expansion of non-government and community- supported schools. Even the approach paper to the 10th Five-year Plan and 10th Plan document states that, “since budget resources are limited and such resources as are available, need to be allocated to expanding primary education, it is important to recognise that the universities must make greater efforts to supplement resources from the government” (Government of India, 2001, 2002-2007). The overall thrust is, therefore, to recover the public cost of higher education through exploration of alternative sources of financing. Accordingly, attempts to find alternative methods of funding higher education have begun in several developing countries. Among the various alternatives suggested, a system of financing higher education, through education loans to the students, has been advocated as an innovative policy that promises reductions in the financial burden of higher education on government funds, and also improvements in equity in higher education by reducing the regressive effects of public financing of higher education, and improving access to higher education (Tilak, 1992).

There are many studies on education/student loans but not many research-based analytical studies are available in this area. In this background, the present study makes an attempt to examine the education loans through Banks to finance higher education.

The issues raised in this regard are:

- What is the socio – economic background of the students who have taken loan?
- What is the repayment pattern of the loans?
- Is it a burden on the students or on their parents?
- Is the return to education of the loan holders higher?
- Does it intend to meet specific manpower needs?
- Does the government further reduce the expenditure on higher education/subsidy as a result of loan financing to higher education?

The present study seeks to examine the above issues with the help of an empirical study on bank loan financing for higher education in a less developed state i.e. Odisha.

The paper is organized as follows: The first section presents the introduction, describing the importance of higher education and the need for alternate funding. In the second section some of the works related to education loans are discussed. The third section presents the study design, including the methods of sampling and data analysis. The growth of higher education in India and the financing of higher education in India are presented in the fourth section. In the fifth section, loan financing to higher education in India is discussed. The Sixth Section presents the growth of higher education in Odisha and the financing of higher education in this state. In the seventh section, the results of the empirical study conducted in Odisha on Bank loan finance for higher education are presented. The last section presents the main findings and concluding observations.

A brief Review of Literature

Recently, an increasing number of countries have implemented innovative financing to overcome the deficit in public budget for higher education. There are two general types of financing that are utilized by governments around the world: direct financing and indirect financing. Direct financing is the transfer of resource directly to higher education institutions to support operational cost, capital investments, research, and specific purposes. On the

other hand, indirect financing is the government finance support to student or their families through tax benefits, loan subsidies for academic and living expenses, grants and scholarships. There is another source of financing for higher education i.e. Private sector financing. This again is sub-divided into private-for-profit and private-not-for-profit financing. The financing by the households, Charitable trusts, Community etc. is included under the not-for-profit category while the for-profit financing category covers corporate bodies, foreign private universities etc..

Loan financing to education has emerged as one of the most popular alternative sources of financing and this scheme is currently in operation in more than 80 countries around the globe. In view of the rising costs of higher education (both tuition fee and maintenance cost), a number of countries in the developing and developed world have introduced education loan programmes for providing an opportunity to the students of lower income class to go in for higher education. This has become a more popular source of financing higher education mainly because of (i) steep hike of cost of higher education, (ii) fast increasing demand for higher education, (iii) large scale entry of private sector into higher education.

More recently, commercial banking sector is becoming an emerging source of education loan in countries, such as India and China. No evidence exists on the nature and extent of other sources of education loan in any country. It was observed in China that the scheme is not very equitable, since the chances of receiving a loan are lower for very needy students while varying among students of similar economic status, depending on the educational institution. Since banks shoulder most of the default risk, they tend to discriminate against the more default-prone students – the poorer students and those enrolled in institutions of lower standing. It may also be noted that China fulfils both budgetary and social objectives of education loan scheme. In addition, since local governments provide the interest subsidy for local institutions, poorer local governments are less able to supply interest rate subsidies to local universities (Shen and Li, 2003).

Chung (2003) states that in Hong Kong, the allocation of education loans has been mainly based on considerations of equity, efficiency and adequacy. The students from less well-to-do families receive greater financial assistance. The loan entitlement varies according to a formula, which takes the applicant's family financial situation into consideration. The goal of the system is to ensure that no qualified student is deprived of higher education because of lack of funds, thereby fulfilling the social objectives. Second, the maximum amount of a loan is adjusted so as to correspond to the general living needs of a student, determined through regular surveys of student expenses and the compilation of a Student Price Index. The allocation of financial assistance has also been used to encourage development in areas of study required by society. At different stages, various grants and loans in Hong Kong have been targeted at students in teacher training, information technology, financial services and creative media. Moreover, the development of the education loans scheme by the government has not reduced the government's financial commitment to higher education.

There are six government-supported loans schemes for higher education in the Republic of Korea, covering about 16 per cent of student enrolment. Overall, education loans for the students in the Republic of Korea are highly subsidized and have not been used as a tool to support cost recovery in higher education (Kim and Lee, 2003). These types of loans have never operated on a large scale in the Philippines; their impact on higher education finance has been minimal and their performance record is poor. Current experimentation with

government funded but university-based loan schemes is also operated on a small scale with questionable success. No clear plans are afoot to develop any nationally based scheme of broad coverage and sizeable impact in the foreseeable future (Kitaev et al, 2003). However, the loan schemes in Philippines aim at targeting the poor students and the students pursuing priority courses as enlisted by the government.

Literature on student loan does include theoretical studies with a focus on alternative ways of designing and evaluation of student loan from the view points of efficiency and equity. Empirical studies on student loan in different countries provide details of the objectives, design and implementation of alternative programmes or schemes. For instance, Johnstone (2002) presents an excellent review of student loan programmes in select Central America, European and African countries, such as, U.S.A, Sweden, Germany, The Netherlands, U.K, South Africa and Kenya.

The most important and common objectives of student loan are equity and access for the poor. The cost-sharing dimension of student loan has an implicit budgetary objective in regard to public funding replacement in higher education. It implies reduction in public expenditure on higher education and reallocation of education expenditure from higher to lower levels of education (UNESCO, 2003). Notwithstanding the importance for budgetary objectives, however, the above studies do not offer a supporting or confronting empirical evidence on achieving the budgetary objectives.

Ziderman (2003) states that the Thai loans scheme, which began operating in 1996, was aimed at disadvantaged students, enrolled in upper secondary general and vocational schooling as well as tertiary education, in both the public and the private sector. While the scheme aimed at the needy students, targeting was not effective. The family income ceiling, set for loan eligibility, was found to be thrice the income officially designated as defining poverty. Loan budget allocation to educational institutions is only very loosely tied to the social profile of the student population at a given institution (in the case of universities, allocation criteria are not based at all on student poverty within the university or related to need). The Thai loans scheme receives a considerably higher level of government subsidy than the loans schemes in the other case study countries.

Salmi and Hauptman (2006) argued that need-based grants and merit-based scholarships could be an important means to promote greater access, equity and quality and could be used to increase cost sharing regardless of whether the grants and scholarships were funded by government or through cross subsidies from other wealthier students. In higher education systems across the world, the trend towards increased cost sharing in public universities and the growth of private institutions created alternative ways to assist students in paying even more of their own education and related expenses.

In the Indian context, Tilak (1999) argued that from the viewpoint of the governments, student loans are expected, among others, to dispense with budgetary allocations for and, eventually, withdraw from financing higher education or make higher education self-financing by non-government sources. However, Tilak underlines that this argument is based on several unrealistic assumptions, such as existence of well-developed capital markets and to their access for poor students, recovery of loans in specified periods; students are the main/sole beneficiaries of higher education and existence of strong or perfect links between education and employment. In the absence of these assumptions, Tilak concludes that student loan "may indeed be a deterrent to the growth of higher education".

In view of the experiences of India and other countries, student loans cannot be viewed as an efficient solution to the problem of finances in the short, medium and long terms. Besides, it would not be a perfect substitute for budgetary subsidy to help the poor deserving students in higher education (Narayana, 2005). Tilak (2007) observed that the loan scheme is not equity oriented and there is no evidence of preferential treatment for the socio-economically weaker sections. Even though banks offer one per cent lower interest rates than the normal rate, but the student loan would work as a 'negative dowry' (Robbins Committee, 1963, p. 211) particularly in countries like India where dowry is a social phenomenon. After reviewing the strengths and weaknesses of the student loan scheme, he suggested that student loan can be used in a very limited way for limited purposes but not for the entire higher education system in India. In the context of unequal socio-economic backgrounds of the Indian population, a sound taxation system can be allowed as an in-built mechanism of recovery of public investment made in higher education.

Panigrahi (2010), using sample data of 310 observations collected from four institutes of Odisha, analysed different facets of educational loan for higher education by the commercial banks in the state of Odisha. Using multiple regression model, the author found that the cost of education, gender (male), number of dependents, different types of schooling and expected salary of the recipients of loan are positively associated with loan, while parental income, education of parents, location of the schools are negatively associated with the loan sanctioned for higher education. The author critically examined the constraints, policies and procedures of loan sanctioned by the commercial banks, particularly in the context of a developing region. The limited number of studies reviewed showed different results and, so far, no serious research-based study has come out in respect of loan financing, especially bank loan, for educational finance, particularly in India. The present study makes an attempt to fill this gap in a limited way. However, the study will no doubt be an eye-opener on many of the issues which can be taken up as further research.

The Study Design

Both the secondary and primary data were used in the study. The secondary data, pertaining to different indicators of higher education, were collected and analysed. The indicators include number of universities and colleges of higher education, enrolment in higher education, budgetary allocation and expenditure pattern for higher education in different years for India and the study state i.e. Odisha.

In order to know the socio-economic impact of bank loan, its determinants and the rate of interest, mode of repayment etc., we used primary data collected from students, who had already taken loan from banks, particularly State Bank of India, in the district of Cuttack, an economically, educationally and commercially developed district of Odisha. A total of 60 beneficiaries availing bank loan for the purpose of pursuing their higher education were selected. The list of beneficiaries was collected from the records of the Bank and they were selected randomly. The beneficiaries were from different courses like B.Tech, M.Tech, MBA, MBBS and MCA etc.. The information like their socio-economic background, educational qualification and their parent's education, occupation, residential status and mode of repayment of loan etc. were collected from the bank records (from the forms submitted for

the sanction of the loan). The primary data was collected through a questionnaire designed for the purpose. Simple and cross tabular methods were used to analyse the data of the socio-economic and educational variables of the students, who had availed the loans. In order to examine the effect of socio-economic determinants of loan, a simple linear regression model was used as follows:

$$\text{LOAN} = F(\text{FATH_OCC}, \text{FAM_INCOME}, \text{INT_RATE})$$

$$\text{LOAN} = \alpha + \beta \text{FATH_OCC} + \beta_1 \text{FAM_INCOME} + \beta_2 \text{INT_RATE} + U$$

Where the dependent variable is the amount of loan (in Rs.) taken by the student

FATH_OCC is used as dummy i.e 1, If the occupation is service, otherwise 0

FAM_INCOME is the family income.

INT_RATE is the rate of interest

α , β and U are the intercept, constant and error term respectively.

In order to examine the effect of education on earnings, the Mincerian earning function was fitted as follows:

$$\text{Log of earnings} = f(\text{years of education, years of education square})$$

By using this model, the rate of returns to education of students who had taken loan compared with that of students not taking loan was estimated.

Brief Profile of Higher Education in India

Growth of Higher Education

Since independence, the number of colleges and universities has registered a significant hike. From 1950-51 to 2008-09 (Table 2), while the number of universities has increased at an annual compound growth rate of 4.9 per cent, the number of colleges has gone up from 578 to 17,625 showing a growth rate of 7 % per annum. During this period, enrolment in higher education has registered a steep hike, as the gross enrolment ratio in higher education, which was one per cent in 1950-51 increased to 13.7 per cent in 2008-09. The number of teachers has also gone up from around 24,000 in 1950-51 to 652,000 in 2008-09. Thus, the Indian higher education system is the largest in the world in terms of the number of institutions. The number of institutions in India is much higher than the total number of institutions both in the US and Europe.

Financing of Higher Education in India

Before discussing the loan financing to higher education, the pattern of public expenditure to higher education merits discussion, particularly during the fiscal stringency after 1990s at the national as well as at the state levels.

TABLE 2
**All-India Growth of Institutions, Enrolment and Teaching Faculty at Higher Education Level,
 1950-51 to 2008-09**

<i>Year</i>	<i>Universities</i>	<i>Colleges</i>	<i>Enrolment (in thousands)</i>	<i>Teachers (in thousands)</i>	<i>GER in Higher Education (%)</i>
1950-51	28	578	174	24	1.00
1960-61	45	1819	557	62	2.00
1970-71	93	3227	1956	190	3.90
1980-81	123	4738	2752	244	5.40
1990-91	184	5748	4925	271	4.30
2000-01	266	11146	8399	395	8.97
2004-05	348	17625	10481	472	9.97
2005-06	350	16982	14323	488	11.6
2006-07	371	19815	15257	504	12.4
2007-08	406	23099	17211	652	13.1
2008-09	440	27882	18500	652	13.7

Notes: *Universities include central, state, private and deemed to be universities as also institutions of national importance established both by the central and state governments

Sources: Selected Educational Statistics, MHRD (various years).

The main sources of finance of Indian Higher education is the government and the private that includes household, firms, community, charitable trusts etc.. The long-term trends in financing show that higher education is increasingly becoming a state funded activity with about three-quarters of the total expenditure being borne by the government. However, on account of several factors, including the new economic policies adopted since the 1990s, state funding to education, in general, and higher education, in particular, has been declining in real terms. Further, the mushrooming of private institutions, particularly in areas of management, engineering, medicine, computers, etc, have raised the issues of access, equity, quality and regulation.

Public Expenditure on Higher Education

With the shrinking of government budgets and other fiscal problems that are being faced by both central and state governments, the financing trends have not been favourable to higher education since the 1990s. The public expenditure on higher education increased from Rs 23,120 million in 1990-91 to 248319 million in 2009-10 (Table 3) at current prices with an annual growth rate of 12.6 per cent. The same is 13.5 per cent for technical higher education during the same period.

The public expenditure on central government contribution to higher education is around 20 per cent of the total expenditure since 1990-91 with a few exceptions in the present decade, wherein it increased to a little over 25 per cent. Much of the central government expenditure on higher education is routed through the University Grants Commission (UGC). It is interesting to note that the disbursement of funds by the UGC is uneven and the bulk of it goes to the central universities and their affiliated colleges and to a few deemed to be universities. Since 1990-91, the central and state governments are financing the public technical education almost in equal proportions. Much of the central

government expenditure (a little over 40 per cent) goes to Indian Institutes of Technology (IITs). Indian Institutes of Management (IIMs), Indian Institute of Science (IISc), National Institutes of Technology (NITs), and All India Council for Technical Education (AICTE) – each gets around 10 per cent of the total central government grants.

TABLE 3
Budget Expenditure (Revenue) on Higher and Technical Education

(Rs. in millions)

<i>Year</i>	<i>General Higher Education</i>	<i>Year</i>	<i>Technical Education</i>
1990-91	23120	1990-91	7530
1991-92	24440	1991-92	8090
1992-93	27000	1992-93	9070
1993-94	31040	1993-94	10180
1994-95	35250	1994-95	11890
1995-96	38710	1995-96	12900
1996-97	42880	1996-97	14500
1997-98	48590	1997-98	16230
1998-99	61170	1998-99	20730
1999-2000	82480	1999-2000	24590
2000-01	91950	2000-01	25280
2001-02	80880	2001-02	25600
2002-03	88600	2002-03	28210
2003-04	93810	2003-04	31390
2004-05	95620	2004-05	33870
2005-06	110133	2005-06	36569
2006-07	125411	2006-07	40417
2007-08	143114	2007-08	46574
2008-09(RE)	194689	2008-09(RE)	77206
2009-10(BE)	248319	2009-10(BE)	94693
Growth Rate (%) (1990-91 to 2009-10)	12.6	(1990-91 to 2009-10)	13.5

Source: Analysis of Budget Expenditure on Education, MHRD, different Issues

Proportion of GNP to Higher Education

One can not only judge the allocation of expenditure *per se* to higher education but also the proportion of expenditure on higher education to GNP/GDP (Gross Domestic Product). In the context of the intra-sectoral allocation of resources, it was observed that the constitutional commitment of providing Universal Elementary Education is non-negotiable. The secondary education as preparatory as well as terminal education cannot be ignored. In the context of globalisation and increased competition, higher education cannot be

overlooked either. Having regard to these realities, a sort of consensus is gradually emerging to allocate at least three per cent of GNP to elementary education, 1.5 per cent to secondary education and the remaining 1.5 per cent to higher and technical education (CABE 2005). With this background, now let us examine the priority accorded to different levels of education. Since 1990s, the priority given to higher and technical education has declined despite their growing importance in facing the new global challenges. The proportion of GNP allocated to higher education has sharply declined from 0.46 per cent in 1990-91 to 0.34 per cent in 2004-05 and then slowly increased. The allocation to technical education declined from 0.15 per cent to 0.12 per cent as a proportion of GNP during the same period (Table 4) and increased slightly afterwards. The allocations to higher and technical education, put together, constituted less than one percent (0.6 per cent of GNP) till 2005-06 and increased to slightly higher than one per cent from 2006-07 onwards and in 2009-10 it was 1.23 per cent.

TABLE 4
Public Expenditure on Higher and Technical Education
as Percentage of GNP and Budget

Year	As Percentage of GNP		
	Higher	Technical	Higher & Technical
1990-91	0.46	0.15	0.61
1991-92	0.42	0.14	0.56
1992-93	0.41	0.14	0.55
1993-94	0.4	0.13	0.54
1994-95	0.39	0.13	0.52
1995-96	0.37	0.12	0.49
1996-97	0.35	0.12	0.47
1997-98	0.35	0.12	0.47
1998-99	0.39	0.13	0.52
1999-00	0.47	0.14	0.61
2000-01	0.49	0.13	0.62
2001-02	0.39	0.12	0.52
2002-03	0.40	0.13	0.52
2003-04	0.37	0.13	0.50
2004-05	0.34	0.12	0.43
2005-06	0.67	0.28	0.95
2006-07	0.70	0.44	1.14
2007-08 ^p	0.83	0.26	1.09
2008-09 ^q	0.90	0.33	1.23

^p Provisional and ^q Quick estimate

Source: Government of India, Analysis of Budgeted Expenditure, various years.

It is, therefore, quite clear from above tables that under the deep waves of globalisation and competition, important economic rationale for government funding, especially for higher education, is neglected. Tilak (2003) has very rightly pointed out in this context that the overall decline in public expenditure on higher education is attributed to (a) decline in

resource capacity of the government, (b) neo liberal policies introduced in the beginning of 1990s and (c) a strong but wrong assumption that higher education does not matter for development.

This adverse impact of economic reforms has a bearing on various revenue diversification measures such as hike in student fees, entry of private sector into higher education, education loan programmes operated by commercial banks etc.. One of the important revenue diversification measures adopted in the Indian higher education system is *student loans*. The student loan scheme has been in operation in India since 1963. The next section briefly presents the current model of student loan scheme and growth of student loan by commercial banks in India.

Loan Financing to Higher Education by Banks

Nature and Scope of Student Loan Scheme³

Of late, educational loan is very popular among students because of its simple and appealing logic, despite its inherent weaknesses. It is argued that in order to safeguard poor students from the rising costs of higher education (both tuition fee and maintenance cost), a number of countries in the developing and developed world have established student loan programmes. Student loans are currently in operation in more than 80 countries around the globe. However, cost recovery cannot be implemented equitably without scholarship programmes that should guarantee necessary financial support to academically qualified poor students (Salmi, 1992; Tilak, 1997). Further, imperfections in capital markets, related to the lack of collateral security for education investments, restricts the ability of poor students to borrow for education. In India, there was an interest-free National Loan Scholarship programme financed by the central government to help the poor and meritorious students in higher education. The recovery rate of this scheme was either extremely low or nil and the scheme is no more in operation.

Following the wave of changes around the world, the present Educational Loan Scheme through banks is more popular. Government of India, in consultation with RBI and Indian Bankers' Association, framed a comprehensive loan scheme in 2001 and revised it in 2004-05. At present, all the public sector banks and other private banks have introduced different types of attractive student loan schemes. The scheme covers a wide range of courses in higher studies from post-matric to higher levels, both in India and abroad. However, to bring in uniformity and enlarge the scope of student loan scheme of all commercial banks, a model student loan scheme has been adopted by all commercial banks.

Student loans cover tuition fees, hostel fees, library charges, hostel charges, administrative charges, travel expenses, purchase of books/equipment/uniform etc.. The quantum of educational loans varies from bank to bank. Generally, the maximum limit granted is upto Rs 10 lakhs for studying in the country and a maximum of Rs 20 lakhs for studying abroad. Loans are given with interest rates ranging from 10.5 to 15 percent per annum. Some banks also offer a choice between fixed and floating interest rates. Some banks charge interest on daily or monthly reducing balance basis which works in favour of the

³ Since the details of loans and its terms and conditions are available on the web, we have discussed it here very briefly.

borrower. Management students are among the top choices for most banks. Technology students from the country's premier institutions, medical and engineering college students can get student loans from banks on priority basis⁴.

Eligibility criteria

To be eligible for a student loan, the applicant should be a resident of India and must have secured admission to a professional/technical course through a selection process. For studies within India, banks lend upto Rs 4 lakhs without any security or margin. A higher loan amount of say above Rs 4 lakhs and upto Rs 7.5 lakhs can be availed against a collateral security in the form of third party guarantee. The third party guarantee is not required if the students' father/mother is an employee of the respective banks. The loan amount above Rs 7.5 lakhs requires full tangible collateral security. This loan comes with a five percent margin (what this means is that five percent is deducted from the amount sanctioned as loan). Margins vary from five per cent to 15 per cent for loans above Rs. 4 lakhs. Interest rate is charged according to the Base Rate (BR). For loans exceeding Rs. 4 lakhs and upto Rs 7.5 lakhs, the rate of interest is three per cent in addition to the Base rate. This rate is 0.5 percent less for girl students. A concession of one per cent is provided by the banks if interest is serviced during the study period and subsequent moratorium period prior to the commencement of repayment.

To study abroad, a higher loan amount of Rs 7 lakhs and above are usually sanctioned against fixed deposits, NSC certificates, or property worth the loan amount. Here, the margin amount is 15 percent. Further, a loan below Rs 4 lakhs is charged at 10.5 percent rate of interest, the interest on a loan over Rs 4 lakhs is usually charged one percent higher. The Reserve Bank of India (RBI) prescribes the specifics (amount, rate, repayment period) of education loans and the government provides a two percent subsidy on these loans to banks.

Documents required for a student loan

Completed education loan application form, original marksheet of last qualifying examination, Proof of admission, scholarship, studentship etc., Prospectus of the institute containing schedule of expenses for the specified course, Passport-size photographs, Borrower's bank account statement for the last six months need to be submitted. In case the borrower is an income tax payee, income tax assessment order of the last two years, Brief statement of assets and liabilities, and of the co-borrower, if any, Proof of income (salary slips, Form 16 etc.), if any, Copies of foreign exchange permit, if applicable, are required.

Repayment

Ideally, a loan should be taken from a bank located close to the place of study unless it is concerned with overseas studies. This facilitates easier access to funds. For courses where employment prospects are less (as per the bank's own evaluation), loans are sanctioned on the basis of the parents' income. The Indian Banks' Association (IBA) has recently revised the terms and conditions of student loans scheme following the RBI guidelines. The

⁴ The list of institutions and approved courses in India are available on websites: www.ugc.ac.in, www.education.nic.in, www.aicte.org.in. For studying abroad ref. www.webometrics.info (indicative only)

repayment holiday is 'course period plus one year or six months after getting the job, whichever is earlier'. Loans are usually repaid through equated monthly installments (EMIs). The time period can vary depending on the policies of the bank concerned. On an average, the period of repayment of the loan for a student is spread over 10-15 years.

Tax implications

Under Section 80(e) of the existing Income Tax Act, a person is exempted from tax for the total amount of interest on an education loan. This amount is directly deducted from the income of the tax payer. The student loan segment is being viewed in recent years as having a vast untapped potential. Almost every prominent bank in the country has a student loan scheme in some form. Banks are increasing the flexibility of this loan in terms of payback period to attract more students. Therefore, it makes sense for students pursuing professional courses to opt for the student loan.

Growth of Student Loan

Education is one of the 18 sectors⁵ that is covered under priority sector lending by the commercial banks. Published data on educational sector lending by commercial banks is limited to public sector banks and relate to the number of accounts and amount of education loan (i.e. amount outstanding)⁶. According to *Trend and Progress of Banking in India (2008-09)*, as on March 2009, there were 27 public sector banks, 22 private sector banks and 27 foreign banks in India providing education loans. Published data on educational sector lending by commercial banks is limited to public sector banks and relate to the number of accounts and amount of education loan (i.e. amount outstanding). Table 5 presents the growth of student loan from 1990-91 through 2009-10.

⁵ The other 17 priority sectors are: i) Agriculture, ii) Small Scale Industries, iii) Micro and Small Enterprises, iv) Setting up of Industrial Estate, v) Small Road and Water Transport, vi) Operators, Retail trade, vii) Small business, viii) Professional and Self- employed persons, ix) Micro Credit, x) Consumption, xi) State Sponsored Corporations/Organisations for on-lending to other priority sector, xii) State sponsored Organisation for SC/ST for purchase and supply of inputs and marketing of outputs, xiii) Housing loans, xiv) Funds provided to RRBs, xv) Advances to self-help groups, xvi) Advances to software industries, xvii) Advances to food and agro- processing sectors.

⁶ According to provisional data available from RBI, as on March 2009, the educational sector lending by private sector banks is Rs. 797 crores, which is just 0.42% of the total priority sector lending.

TABLE 5
Growth of Student Loan in India

Financial Year (April through March)	Number of Accounts (in '000) of student loan		Amount Outstanding of student loan		Total Priority Sector Lending (Rs. in Crores)	Percentage of Student Loan to Total Priority Sector Lending
	Number	Annual Growth (%)	Rs. in Crores	Annual Growth (%)		
1990-91	70	-2.78	77	14.93	-	-
1991-92	69	-1.43	106	37.66	44692	0.24
1992-93	66	-4.35	117	10.38	48384	0.24
1993-94	66	0.00	132	12.82	52945	0.25
1994-95	70	6.06	158	19.70	60802	0.26
1995-96	74	5.71	183	15.82	69606	0.26
1996-97	114	54.05	280	53.01	78719	0.36
1997-98	82	-28.07	329	17.50	90738	0.36
1998-99	137	67.07	450	36.78	104094	0.43
1999-00	80	-41.61	543	20.67	127478	0.43
2000-01	112	40.00	1028	89.32	149116	0.69
2001-02	157	40.18	1527	48.54	171485	0.89
2002-03	239	52.23	2870	87.95	200169	1.43
2003-04	347	45.19	4179	45.61	244456	1.71
2004-05	470	35.45	6398	53.10	307046	2.08
2005-06	641	36.38	10804	68.87	409748	2.64
2006-07	1002	56.32	14012	29.69	521376	2.69
2007-08	1298	29.54	19844	41.62	610450	3.25
2008-09 ^P	1580	21.73	26913	35.62	720083	3.74
2009-10 ^P	1615	2.21	27799	32.92	967416	2.87

^P Provisional.

Source: Various issues of RBI report (Rural planning and credit dept, RBI).

As can be seen from Table 5, over the years the number of accounts in the country show wide fluctuations in terms of annual growth rate. The annual growth was negative in 1990-91, 1991-92, 1992-93, 1997-98, and 1999-2000, zero in 1993-94 and positive in the other remaining years. On the other hand, the amount of loan has increased as indicated by the positive annual growth rate. However, variations in annual growth rate indicate lack of consistency in the annual increase in amount of the loans. Further, of the total priority sector lending by public sector banks, student loan has remained less than one percent throughout the period until 2001-02. However, after 2001-02, there has been an improvement in student loans as proportion to the overall priority sector lending.

Education Loans by Banks in Odisha

Before discussing the student loans in higher education in Orissa, it is necessary to have a brief idea on the status of higher education in this state.

Growth of Higher Education in Odisha

Odisha is considered as one of the backward states of the country with highest proportion of its population living below poverty line. The demographic composition of the state makes it more backward with about 40 per cent of its population constituting SC and ST segments. The female literacy rate among the ST population in some of the tribal pockets is still below 10 per cent. In the context of wide socio-economic and political disparities, it would be interesting to examine the status of higher education in the state.

When the new state of Orissa was formed in 1936, there were only five colleges in the state. Of these, four were Arts and Science colleges and one was a training college for teachers. In 1943, the Utkal University was established and higher education began to expand. At the time of independence, there were only 11 arts and science colleges and one medical college. The total enrolment was 3885 out of which 219 were girls. The number of colleges increased to 14, including one Women's college, with an enrolment of 6252 at the beginning of the First Plan (1950-51). Despite considerable expansions in higher education in Orissa since independence, the state continues to lag behind many of the other states as well as the national average. There were 10 universities, two deemed universities and two research Institutes in Orissa in 2007-08. The colleges grew at an average compound growth rate of seven per cent during 1950-51 to 2007-08. Total number of institutions of all types grew at 7.4 per cent per annum during the same period. The enrolment increased at a slightly higher compound growth rate of 7.6 per cent than the institutions, indicating the increased demand for higher education. The gross enrolment ratio in higher education is about nine per cent, which is below the national average of 13 percent in 2007-08. This ratio is much lower for SC, ST and women in the state (about four per cent for each group of population). Table 6 presents the growth of higher education in Odisha.

TABLE 6
Growth of Higher Education (Degree level & above) in Odisha

Year	Universities	Deemed Universities	Research Institutions	Arts, Science & Commerce Colleges	Other Institutions (ENG) etc.	Total Institutions	Total Enrolment in Higher Education	Number of Teachers
1950-51	1	0	0	14	0	15	6252	298
1986-87	5	0	0	367	79	451	103118	9570
1999-00	5	0	0	567	78	650	300720	17175
2001-02	8	0	0	567	132	707	341761	18436
2002-03	8	1	0	567	201	776	340796	19111
2003-04	8	1	0	567	204	779	348706	19534
2004-05	9	2	0	700	236	945	367187	20454
2005-06	9	2	3	702	218	929	413269	21134
2007-08	10	2	2	700	219	933	441131	22086
CGR(%)	4.05			6.98	4.74	7.37	7.61	7.76

Financing of Higher Education in Odisha

Financing of education in the state has been a recurring problem since independence. The resources allocated to education in the state are quite inadequate for qualitative and quantitative development of education, in general, and higher education, in particular. The total expenditure on higher education in the state has always remained less than three per cent of the total state expenditure. It was 2.19 per cent in 2000-01 while the same has declined to 2.13 per cent in 2008-09. There is slight improvement in the allocation to higher education in 2009-10 but it is less than three per cent.

Not only is the expenditure on higher education to the total expenditure of the state very low, but also the proportion of expenditure on higher education to the total expenditure on education is not very encouraging. It was 12.37 per cent in 2000-01 and it increased to a little over 16 per cent in 2009-10. One can also examine the share of educational expenditure in state income and it is found that much less than one percent of the GSDP is spent on higher education. It was 0.45 percent of the GSDP in 2000-01 and increased to 0.60 per cent in 2009-10. Table 7 shows the expenditure on higher education.

TABLE 7
Public Expenditure on Higher Education and State Income

Year	Total expenditure on higher education as % to Total Expenditure	Total expenditure on higher education as % of total expenditure on education	% of expenditure on higher education to GSDP
2000-01	2.19	12.37	0.45
2001-02	2.99	18.75	0.74
2002-03	2.45	14.68	0.54
2003-04	2.25	14.29	0.43
2004-05	2.30	15.18	0.43
2005-06	2.35	15.29	0.44
2006-07	2.45	17.80	0.46
2007-08	2.45	16.18	0.48
2008-09	2.13	14.42	0.46
2009-10(p)	2.90	16.14	0.60

Source: Budget document, Government of Orissa, Various years,
p = provisional estimate

If we look at the allocation of resources between different sectors of education, it is found that primary education always gets the highest share and higher education the lowest share. In fact, not only is the allocation to higher education lower than primary and secondary education, but also the expenditure on higher education has remained more or less constant over the years. It is found in Table 8.

TABLE 8
Intra-sectoral Expenditure on Education

<i>Year</i>	<i>Primary</i>	<i>Secondary</i>	<i>Higher</i>	<i>Others</i>	<i>Total</i>
2002-03	58.33	25.90	14.67	1.10	100
2003-04	58.69	25.49	14.30	1.52	100
2004-05	57.61	26.15	15.83	0.41	100
2005-06	55.61	28.29	15.31	0.79	100
2006-07	56.76	26.54	15.61	1.09	100
2008-09	56.09	27.44	14.68	1.79	100
2009-10(RE)	55.08	26.35	16.68	1.99	100
2010-11(BE)	55.01	26.57	16.13	2.29	100

Bank loans for Higher Education: Analysis of Survey Data

As mentioned earlier, the information was collected from a sample of 60 students who took loans from the State Bank of India. The socio-economic profile of the loan holders and other such information were collected and analysed.

Loan holders by Social Groups and Gender

More than half of the loan holders are general castes, while a little over 40 per cent of the loan holders belong to OBC with only three percent belonging to Scheduled Castes. The least proportion of backward castes is found to get loans from the bank. Of the total loan holders, 73 percent are males while the rest are females. Table 9 presents the loan holders by social groups and by gender and by castes.

TABLE 9
Loan Holders by Caste and Gender

<i>Gender</i>	<i>Caste category</i>			<i>Total</i>
	<i>General</i>	<i>OBC</i>	<i>SC</i>	
Male	59.1	36.4	4.5	73.33
Female	37.5	62.5	-	26.67
Total	53.3	43.3	3.3	100.00

Source: Own survey.

Loan by Type of Education and Gender

The average loan amount is the highest for MBBS degree, followed by M.Tech degree. The lowest amount of loan is found for the diploma course. Across gender, the loan is always found to be lower for females as compared to their male counterparts. The general assumption that bank loan is equity oriented does not seem to be a correct assumption as evident from our empirical data. It not only affects the women's higher education but also the socio-economically backward and SC/ST students, because there is no specific scheme by the banks for these groups of the population.

TABLE 10
Loan by Type of Education and by Gender

<i>Education</i>	<i>Average Loan in Rs</i>		
	<i>Male</i>	<i>Female</i>	<i>Total</i>
M .TECH	860000	-	860000
B. TECH	233962	175236	409198
MBBS	925000	400000	1325000
MCA	-	121400	121400
BDS	547500	-	547500
DIPLOMA	80000	34000	114000
MBA	261027	-	261027

Source: Own Survey

Education Loan by Father's Occupation

About 2/3rd of the students are getting loans when father's occupation is service and 30 percent of the students belong to the business community and only three per cent from cultivator's family. The amount of loan taken by the students belonging to cultivator's family is not only the lowest but it was taken for diploma course which is below the degree level of education. It may be on account of the affordability as well as the repayment capacity of the father in case the student cannot pay back the loan on completion of education. It may also be noted that the fathers in service prefer to send their ward for higher professional degree courses with the expectation that they will be employed after completion of the study. Since these courses are costlier they prefer to take bank loan which is easily available to them because of the repayment guarantee by the father. Table 11 presents the distribution of loan holders by father's occupation.

TABLE 11
Education loan by Father's Occupation

<i>Type of education for which the loan was taken</i>	<i>Occupation of Father</i>			<i>Total</i>
	<i>Service</i>	<i>Business</i>	<i>Cultivation</i>	
B .TECH	66.67	33.33	0.00	50.00
BDS	100.00	0.00	0.00	6.67
DIPLOMA	50.00	0.00	50.00	6.67
M. TECH	100.00	0.00	0.00	6.66
MBA	50.00	50.00	0.00	13.33
MBBS	66.67	33.33	0.00	10.00
MCA	50.00	50.00	0.00	6.67
Total	66.67	30.00	3.33	100.00

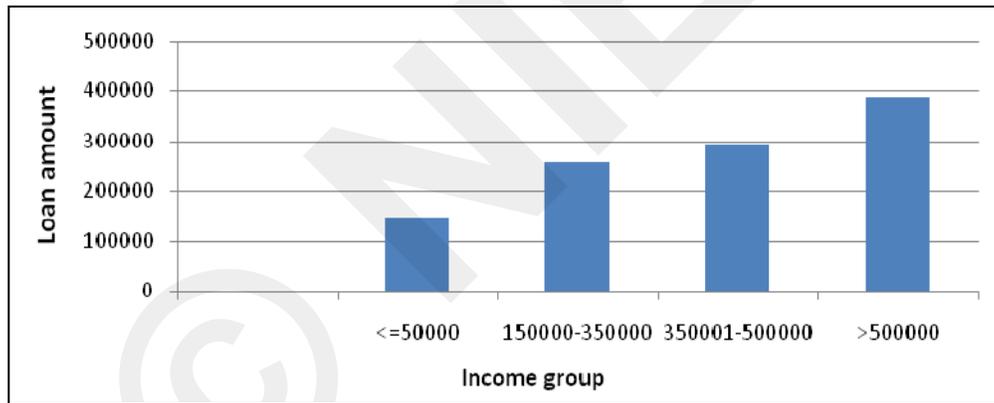
Loan by income of the Households

It is noticed that the amount of loan and the income of the family are directly related. As the level of income increases, the loan amount also increases. Table 12 and chart -1 present the loan and the income level of the households.

TABLE 12
Loan by level of Income of the Households

<i>Level of Income of family in (₹)</i>	<i>Average Amount of loan (₹)</i>
<=50000	150000.0
150000-350000	257742.1
350001-500000	294110.8
>500000	388000.0

CHART 1
Average Amount of Loan (₹) by Income Group



Loan by Collateral and defaulters of loan

Following our testing the norm of the banks that no collateral is required for the sanction of loan up to ₹ 4 lakhs while some collateral is necessary for loans beyond ₹ 4 lakhs, it is seen that this norm is in order in case of our sample customers, and, About 57 per cent of the loan holders got the loan without collateral while 43 per cent got it with collateral as the average amount of loan in the latter category is more than ₹ 8 lakhs. Most interestingly, it was observed that the proportion of defaulters is higher when there is no collateral. The default percentage is 29 percent without collateral and only seven percent in case of loan with collateral. If they are not able to repay the loan, the bank may take away their security for which they are regular in the repayment of loans. Table 13 clearly presents this aspect.

TABLE 13
Loan holders with and without Collateral

<i>Collateral</i>	<i>% of Loan holders</i>	<i>Average loan in Rs</i>	<i>% of defaulters</i>
No collateral	57	349078.06	29
With collateral	43	884694.46	7

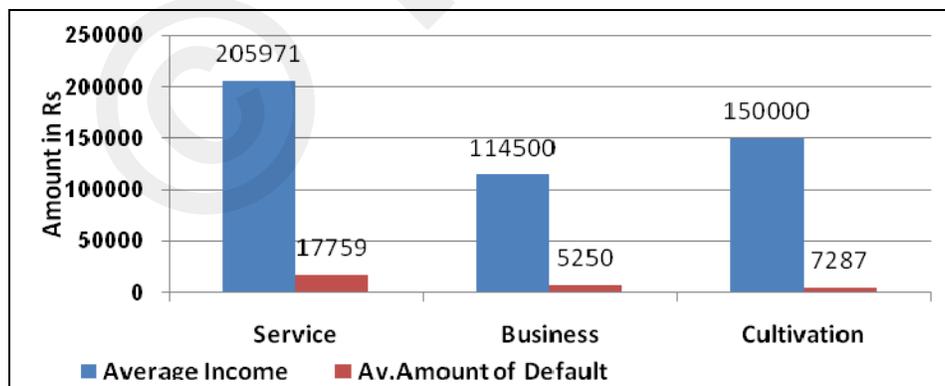
Further, it is found that the better the economic status of the households, higher is the amount of default of loan. This is established from our empirical study. Table 14 and Chart-2 show the linkage between income, occupation and default amount of loan of the loan holders. It is found that with the occupation as service and higher average income of the households, the default amount is also the highest. The default amount is the lowest when the occupation is cultivation with lowest income. This shows that Banks favour not only the assured income group to sanction the loan amount but also the highest income group which is again a threat to equity of education.

TABLE 14
Default amount by Income and Occupation of Father

<i>Occupation</i>	<i>Average Income (₹)</i>	<i>Average Amount of Default (₹)</i>
Service	205971	17759
Business	150000	7287
Cultivation	114500	5250

CHART 2

Default amount of Loan by Income and Occupational Status



Rate of Interest and the Loan Size

There are lot of variations in the rate of interest charged by the bank for the sanction of the loan to a student (the details are discussed in the earlier section). The interest rate varies

from eight per cent to more than 14 per cent. There is an inverse relationship between the amount of the loan and the rate of interest (Table 15) which is obvious.

TABLE 15
Rate of Interest (%) and the amount of loan (in ₹)

<i>Rate of Interest (%)</i>	<i>Amount of loan (in ₹)</i>
>=8 and <=10	6376828
>=10 and <=12	2014527
>=12 and <=15	1288000

Moratorium Period and the Repayment Period of the Loan

The moratorium period of the loan starts after the study period which varies from 24 to 72 months. This grace period of the loan is given to the students with the assumption that they may not get employment just after passing out. The repayment of the loan is to be made with minimum 36 months to a maximum of 84 months. This gives a clear indication that there is sufficient flexibility for the loan holders to repay the loan. If one takes the minimum moratorium and the minimum repayment period it comes to 70 months (24+36) which seems to be quite convenient for the loan holder to repay the loan.

TABLE 16
Moratorium Period and the number of Instalments fixed by Bank by Course

Sl. No.	Course	Moratorium Period (in months)	Repayment Instalments (in months)
1	B.Tech	48-60	60-84
2	BDS	70-72	80-84
3	Diploma	36-48	60
4	M Tech	24-36	84
5	MBA	24-36	48-84
6	MBBS	60-72	60-84
7	MCA	36	36

Results of the Statistical Model

Effects of Socio-Economic variables on loan

As discussed earlier, we have attempted to examine the issue of determinants of bank loan through regression model. The results of regression show that the loan is influenced positively by family income and father's occupation while the same is influenced negatively by interest rate. Both the co-efficients are found to be statistically significant also. We incorporated caste and sex in the model and both the variables were not found to be the

influential factors of the loan. The co-efficient values came out to be very negligible and also statistically not significant for which we dropped these two variables. Table 17 presents the regression results.

TABLE 17
Regression Results of the Effects of Socio-Economic Variables on Student Loan

Dependent variable: Loan amount

<i>Variables</i>	<i>B -Coefficient</i>	<i>t</i>
Constant	25648.2	8.858
Family_Income	67541.23	5.639*
Fath_Occ	23451.6	4.444*
Int_Rate	-14471.5	-2.634**
Adjusted R square	0.522	

*and ** significant at 1 % and 5 % level respectively

Effects of Education on Earnings

The influence of education of the loan holders on their earnings was also examined. For this, we have considered only two types of graduates i.e engineering and medical graduates because the necessary information for other types and levels of education could not be obtained. The net of earnings of these graduates are considered after adjusting the loan repayment amount. The following Mincerian (1974) earning function was fitted:

$$\text{Log of earnings} = f(\text{Education, Education Square}) = \alpha + \beta \text{EDN} + \beta_1 \text{EDN Square} + U$$

The results are presented in Tables 18 and 19.

TABLE 18
Regression Results of the effect of Education on Earnings of Engineering Graduates

Dependent variable: Log of earnings of the loan holders (Engineering graduates)

<i>Variables</i>	<i>B -Coefficient</i>	<i>t</i>
Constant	14352.9	9.554*
Education	0.254	3.989*
Education square	-0.0012	5.577*
Adjusted R square	0.576	
N	60	

TABLE 19
**Regression Results of the effect of Education on Earnings of
 Medical Graduates**

Dependent variable: Log of earnings of the loan holders (Medical Graduates)

<i>Variables</i>	<i>B-Coefficient</i>	<i>t</i>
Constant	1123.98	9.554
Education	0.198	2.987*
Education square	-0.0003	-3.764*
Adjusted R square	0.511	
N	60	

Returns to Education

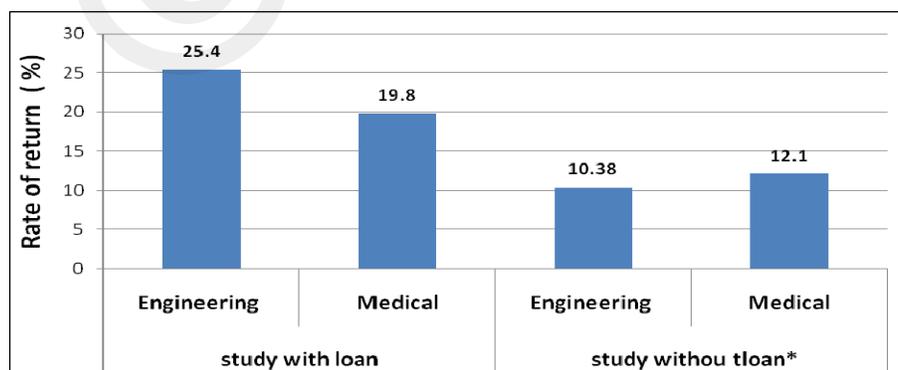
From the results of the earnings function, we found that the returns to engineering graduates are higher than that of medical graduates. These results are compared with the returns of education without study loan, conducted by the author for the state of Odisha. Table 20 shows the comparison of the returns to education with and without loan.

Table 20
Rate of Return to Engineering and Medical Graduates in Odisha

<i>Studies for Orissa</i>	<i>Type of Education</i>	<i>Rate of Return (%)</i>
Study with loan	Engineering	25.4
	Medical	19.8
Study without loan*	Engineering	10.38
	Medical	12.1

*the study was conducted by the author

CHART 3
Rate of Return (%) to Engineering and Medical Graduates in Orissa



It is found that the rate of return to engineering and medical graduates in Odisha with study loan is higher than the same without study loan. This provides a plea that the Banks play a significant role in influencing the earnings of the loan holders for which they incurred loan. It may be on account of the reason that (i) for those who complete their study without loan, the cost is directly borne by them/parents and the same may be higher than the bank loan, (ii) The bank gives first priority to the merit of the students and the institutions where they continue their studies. If the institution is capable of placing their students in the job market with good salary packages, the earnings of the students are not only higher but are also assured with the entry of the students into the particular course. Their earnings start immediately on completion of the study. One of the conditions for loan sanction is that the institution should be of good repute.

Summary and Concluding Observations

Despite the significant development of higher education in India, the country continues to be behind many developing countries in this regard. One of the most important constraints of higher education, particularly after the economic reforms in 1990, is resource crunch. The country spends about one per cent of GNP on higher education and, over the years, this has remained either constant or declined.

Odisha, being one of the educationally backward states in the country with acute poverty, faces the problem of financing its education, in general, and higher education, in particular. The state spending on higher education was not even half a per cent of its GSDP in 2000-01 and it increased to 0.60 per cent in 2009-10. This is grossly inadequate to meet the challenges of the present knowledge revolution. Intra-sectoral allocation of resources for education indicates that the allocation to primary education is the highest and that of higher education is the lowest.

The loan financing to education, as an alternative source of finance, has emerged recently. It is found that Bank loan finance to students is mostly given for professional courses. The social and natural sciences are not on the priority list of bank financing. The students opting for these areas are not able to receive loans from the banks. The interests of the students for pursuing these branches are gradually on a declining trend. Since merit, income of parents are the main criteria of the banks for sanction of loan, the poor students, with merit, are likely to be deprived of this facility. Besides, there is no specific scheme for the backward castes in bank loan schemes. All these create inequality in access not only across education sectors but also across various groups of population. Hence, the assumption that *equity objective of higher education is fulfilled through loan financing to education* seems to be an untenable assumption.

The findings of the sample survey show that: (i) bank loan is directly related to income of the family and father's occupation, particularly when it is a higher income earning occupation. It indicates that the loan is not able to solve the problem of inequality in access to higher education; (ii) More than half of the loan holders belong to general castes and only three percent to scheduled castes; (iii) Across gender, the loan is always found to be lower for females than their male counterparts as about three-fourth of the loan goes to male students and the rest goes to female students; (iv) The average loan amount is the highest for MBBS degree followed by M.Tech degree. The lowest amount of loan is accounted for by

the diploma course. The empirical evidence of the present study seems to confirm that bank loan does not fulfil the social objective of equity criteria of higher education.

Most interestingly, it was observed that (i) the proportion of defaulters is higher when there is no collateral, with the default percentage being 29 per cent for loan without collateral and only seven percent in case of loan with collateral; (ii) the amount of default of loan is found to be higher when the economic status of the households is better. The highest amount of default is found among service holders and the least amount among cultivators.

The return to education of the loan holders is found to be higher as compared to the return of the same education without loan and this may act as a motivational force for the students to go in for bank loan on a large scale. As such, loan financing to higher education may be considered as one of several alternatives of financing higher education in the context of the present fiscal stringency.

The following recommendations are suggested on the basis of the findings of the present study:

(i) *Equity criteria*

In order to fulfil the social objectives of equity in education, discriminatory interest rate may be devised by the banks. There are very negligible differences (0.5 to 1.0%) in the existing interest rate which needs to be reviewed.

(ii) *Manpower need*

Loan schemes may aim specifically at providing support for students willing to study in fields of national manpower priority (say doctors, teachers) or work in remote rural areas.

(iii) *Interest of state universities*

In principle, education loans for students enrolled in private universities has the effect of facilitating the growth of private universities. This, therefore, acts as a demotivation for withdrawing good quality students from these universities. Hence the introduction of non-subsidized loans with higher interest rate for private universities may attract the students to the state universities.

(iv) *Evaluation of the efficacy of the loan schemes*

There is a need to develop a process of continuous evaluation of the loan schemes in the absence of a standard approach for evaluating the efficacy of individual loans schemes.

To conclude, it may be said that bank loans, as one of the alternative sources of finance for higher education, should be designed in such a way that the public spending/subsidy on higher education need not be *crowded out* by the loan financing of higher education by the banks. It needs to work as a supplement rather than a substitute to government financing to higher education in the context of a less developed region (here Odisha) characterised by wide regional/social disparities.

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Indian Higher Education under the GATS Umbrella with Special Reference to Mumbai and SNTD Women's University (1995-2005)

Medha J. Gupte*

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Introduction

The Uruguay Round of Trade Negotiations, which took place in 1986 & 1994, broadened the scope of world trade rules to include services for the first time in the history of trade negotiations. This made possible the setting up of the General Agreement on Trade in Services popularly known as GATS on the same day as WTO – that is 1st January 1995.

GATS is considered a Multilateral Agreement essentially revolving round the premise that progressive liberalization of trade in services will promote economic growth among WTO countries. A total of 161 service activities over 12 classified sectors are covered and education is one of them.

The study has tried to analyze the significance of GATS in the context of education, in general, and higher education, in particular. India has been one of the first signatories of the Accord. India's Brain Power is internationally acknowledged since decades. The signing of the Accord, accompanied by Globalization, has posed both challenges and opportunities to the member countries. A number of issues have emerged and this study has aimed at analyzing the topic under study – Higher Education in India and its Impact on GATS.

Research Methodology

Being both descriptive and diagnostic in nature, the analysis is based on:

- 1) The total number of students enrolled in Mumbai University and SNDT Women's University during the period 1995-2005;
- 2) The percentage change in enrolment in related period;
- 3) The total number of institutes within the said universities, which have entered into any form of foreign collaborations during the period;
- 4) The total number of Scheduled Caste/Schedule Tribe students enrolled in Mumbai and SNDT Women's University between 1995 and 2005;
- 5) The percentage enrolment change in the period under consideration;
- 6) The number of females enrolled in Mumbai and SNDT Women's University during 1995-2005;
- 7) The percentage changes in the enrolment in the specified period;

The basis of analysis used is the Trend Line, Least Square and Moving Average methods.

Locale of Research and Data Collection

The locales of research are the two famous Mumbai-based Universities, namely Mumbai University and SNDT Women's University. Use has largely been made of secondary sources of data. The Indian Education System before 1995 and post 1995-2005, with special reference to Mumbai University & SNDT Women's University, has been studied.

Chapter 2 on Literature Review gives a detailed review of the literature that has been used while compiling this Thesis. Material has been sourced from WTO and GATS Statutes, World Economic Forum, Government Statistics, Economic and Political Weeklies, University

News, Foreign Trade Reviews etc. Internet usage has been strongly resorted to for gathering latest information. In addition, information has also been sourced from books written by eminent economists.

Findings of the Study

One would like to mention the major thrust areas which have formed the base of the Thesis.

Trends in Higher Education

Education has always been given an important place in India's society. Higher Education refers to Post Secondary institutions, colleges and universities. Generally, it is called higher education because it forms the top most stage of formal education. India has the third largest higher education system in the world. Yet the fact remains that less than 10% of India's youth have access to higher education.

Analyzing the trend, one finds that there was a remarkable increase in enrolment in the period between 1980-81 and 1999-2000. Since then, there was a less than proportionate increase in student enrolment. This could be attributed to factors ranging from shift in emphasis, with universal primary education being almost considered as a fundamental right, to growth of private institutions catering to the varied interests of the students. An analysis of trends in Indian higher education shows that at the All India Level, the average rate of growth has been 36.53%. As regards growth of higher educational institutions in the period between 1995 and 2005, the percentage rates of growth are 56% for general education, 26% for professional education and 64% in case of institutions of National Importance.

In the case of University of Mumbai, an analysis of percentage change in enrolment shows an overall progression. However, in the period between 1999-2000 to 2000-01 and 2002-2003 to 2003-2004, there has been a less than proportionate increase in the growth rate.

The average annual growth rate over the years has been 4.06%. The trend line is an upward rising one showing a more than proportionate increase in the enrolment. Using the Method of Least Square, the enrolment is estimated to be 18.03 in 2015-16. The three-yearly Moving Average Method shows the average growth rate as 5.86%, which is higher than the All India growth rate of 4.06%.

SNDT Women's University has experienced a consistent increase over the years, barring 2000-01. The average rate of growth over the period has been 4.5%. This is a positive sign as it shows increasing female enrolment. The average three-yearly growth is 4.34%

A comparison between the two universities reveals that in the initial period upto 1998-99, the rate of growth of Mumbai University was faster. Since then barring 2003-2004, the rate of growth of SNDT Women's University has surpassed that of University of Mumbai. The possible reason for this is that while University of Mumbai is regional in nature, SNDT Women's University has an All India basis.

Multi-National Corporations and GATS

Transnational, Borderless and Cross-Border Education are gaining importance in the 21st Century. Multinational Corporations have entered the education market and are operating through various modes such as: Distance, Twinning Arrangement, Branch or Satellite Campus, Franchising operations, Partnerships for overseas offerings and Free standing Programs.

There is no Regulatory Framework for the entry of foreign institutions in the education market. Foreign Direct Investment is already allowed in India through the Automatic Route. In the absence of legislation, foreign education players, who wish to offer educational programs, are permitted to do so only in partnership with AICTE.

In the present century, forces of changes – global communication, tele-courses, a highly competitive global economy, state-wise global reviews etc. will characterize colleges and universities. India has a decent number of globally competitive children. She must offer them reasonable opportunities so as to hold them back in the country. High Quality capital is our competitive advantage. It has to be nurtured and secured further to ensure a better tomorrow.

Scheduled Castes/Scheduled Tribes and Higher Education

Indian society for long has been characterized by social inequalities, where depressed classes were subject to a lot of economic and social oppression in the past. Scheduled Castes are groups which are recognized by the Constitution as especially disadvantaged on account of their past history and inferior treatment. The Indian Constitution grants them special status. Fifteen percent of the seats in all educational institutions are reserved for Scheduled Castes/ Scheduled Tribes with a provision of relaxation in the minimum qualifying marks for education wherever required.

At the All India Level, data analysis shows that while the average annual rate of growth has been 11% in case of Scheduled Castes, it has been 3% in case of Scheduled Tribes. As regards Mumbai University, the average Backward Class enrolment in the period between 1995 and 2005 has been 19.93%. The trend line is an upward rising one, showing a more than proportionate increase in enrolment. The three-yearly average rate of growth is 10%.

The average Backward Class enrolment in SNDT Women's University has been 14.3%. The trend line is upward rising, showing a consistent increase over the period concerned. The average three-yearly growth is 16%.

Women in Higher Education

Women constitute almost half of the world's population and education of women has been a major preoccupation of the government and society. This is so because women play an important role in the development of the country.

Looking at the data of female enrolment in higher education in India, at the All India Level, the percentage of female enrolment has been increasing with the peak achieved in 2002-2003. However, thereafter, there has been a slight decline. This could be the result of greater female enrolment in professional education, joining private colleges etc. Even in case

of general education, the scales are tilted in favor of males, who account for 66% of total enrolment.

As regards Mumbai University, the average rate of growth is 45.43% - showing marginal gender inequality in favor of males. Trend Analysis reveals a percentage rate of growth of 4.8%. The three-yearly average rate of growth is 5.48%.

SNDT being an all-Women's University, the female enrolment coincides with overall enrolment as mentioned earlier.

Recommendations

India ranks third in terms of enrolment, next only to USA and China, yet she has a sizeable proportion of illiterate population (literacy level of 64.8% according to 2001 Census). She boasts of a universally acclaimed Brain Power and, therefore, measures must be taken to make the best use of our human capital and, thereby, accelerate the pace of economic development.

Recommendations made are related to different aspects of education as detailed below:

1) Financing of Higher Education

- a) With the introduction of Economic Reforms in 1991, there has been a decline in public expenditure on education, in general, and higher education, in particular. The allocation of funds, which is less than 0.5% of GDP, should be increased to 3% of GDP;
- b) All the Committees on education have been emphasizing an increase in tuition fees. The fee hike, however, should be proportionate to the size of income, keeping in mind India's backwardness and poverty.
- c) Provision of student loan facility should be made with a qualification. Special provisions should be made for weaker sections in terms of lowering of the rate of interest and increasing the repayment period.
- d) Regulation of Private Providers of higher education and provision of subsidized education by the Government.

2) System of Higher Education

- a) Our system of Higher Education is outdated. Even in case of the universities under the present study, some institutions lack basic infrastructure. The Government should play an important role in providing finance to these institutions.
- b) In the rural areas, where 75% of the population resides, only a few colleges & institutions of higher learning exist and even where they do, they are widely spread at faraway places. In view of India being a welfare state, the government should take steps to establish colleges particularly in the backward regions so as to provide increasing access to higher education.
- c) Emphasis should be laid on projects in the area of study. Evaluation should be related to the completion of the assigned projects, with importance given to originality, creativity and other innate talents.

- d) Laying stress on gaining knowledge which could be fruitfully utilized for employment purposes in this era of Liberalization, Privatization and Globalization.
- e) Aptitude tests could be conducted and choice of subjects be related to the results of these tests. Exams could be periodically held, as in the Western countries, according to the preparedness of the students.
- f) Internal evaluation should be carried out and, to avoid bias, it could be minimized by evaluating assignments from examiners of other institutions.

3) Indian Higher Education and Foreign Competition

- a) Faculty should be encouraged to visit foreign countries, where teachers, apart from interacting with fellow professionals from foreign countries, could also imbibe some positive traits.
- b) As of now, there is no law regulating foreign entry. There is need for introduction of foreign educational entry bill.
- c) A Program on par with NAAC is necessary for qualitative evaluation of international programs. This will deter the entry of non-recognized institutions or those of lower grades, who could be termed as 'fly by night operators' and who, on the slightest pretext wind operations and leave the country.
- d) India has to strengthen the subject matter in those disciplines so as to lure more foreign students to India.
- e) One of the serious complaints is the domination of political lobbies. It is essential to minimize political influence and grant greater autonomy to colleges and universities.

4) Indian Higher Education and Depressed Classes

- a) The Backward classes have been depressed in India since ages and there should be a separate education policy dealing with their problems.
- b) The degree of Drop-outs is very high among these classes. It is necessary to educate them and change their mind-set regarding the importance of higher education.
- c) There is need for a multi-dimensional approach that lays emphasis on social and economic reforms. India has, first, to solve the problem of poverty and population explosion in order to achieve progress in higher education.

5) Gender Implications of GATS

- a) Women play a vital role in reforming the Indian society. Their education has to be given priority. This can be made possible by providing an education policy focusing on female enrolment;
- b) Enrolment in general education is not enough. It is necessary to encourage professional enrolment. This is more applicable to females;
- c) A massive drive could be launched to change the outlook of people in general towards female enrolment, and more so in villages, where women are regarded as secondary citizens.

Conclusion

Thus the system of higher education has witnessed impressive growth over the years with an increase in student enrolment. One can say that there has been a revolution of sorts with the emergence of private institutions, distance education, self-financing courses and entry of foreign educational providers.

India has to upgrade her system of higher education. The real beginning has to be made at the grass-root level. While the literacy level is still low, just 15% of the student population makes it to schools and just half of this figure seeks higher education. The main problem is poverty, accompanied by rising population. There is urgent need for social and economic reforms.

India seems to be facing a dichotomy in the education sector. While on the one hand, we have the top most institutions inviting the best of talent, on the other hand, there is an exodus of students and institutions lacking basic facilities. The gap needs to be bridged if India has to make an impression in the global competitive education scenario.

With the ongoing process of economic development, there is increased demand for talented and skilled human resources. Higher education requires support from the government. India can broaden her horizon on the education front, only if proper efforts and steps are taken. Entry of foreign education providers, if properly regulated, can provide the Indian economy the much-needed boost to move ahead.

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Book Reviews

SLEETER C., Upadhyay, S. B., Mishra, A.K., and S. Kumar (eds.) (2012) *School Education, Pluralism and Marginality: Comparative Perspectives*, New Delhi: Orient Blackswan, ISBN: 978 81 250 4531 1 (Hard Cover), Pages: 480, Price: Not mentioned

In one of the examples in his book *Social Character of Learning*, Krishna Kumar perceptively analyses how a tribal boy has to *inevitably* align with the dominant discourse of being 'backward' through the pedagogical processes in the mainstream education system in India. It is not as if India can be singled out for such examples; this is more the predicament of marginalized and minority groups across the world. The edited volume under review, emerging from an international conference organised a few years back by Deshkal Society, places the educational deprivation and discrimination faced by such marginalized and minority groups across different geographies as its central theme. The 17 essays, comprising the volume, are divided into four broad thematic concerns – marginal communities, social exclusion, and schooling; hegemonies, formal schooling systems, and the child; pluralism, citizenship, and school education; and developing teaching and learning methods – the social context.

In the first section, R. Govinda and Madhumita Bandyopadhyay set the tone for the overarching theme by analysing how, despite increase in the provision of education facilities in recent decades in India, inequities continue to persist. Such a picture emerges from the figures of enrolment and drop-out rates, evident from the large-scale data sets such as the AIES and the NSS, among traditionally disadvantaged groups. These figures underscore the cumulative disadvantages that occur across caste, gender, geographies and minority status. However, these are arguments that the authors have already elaborated upon in another recently edited volume (Govinda and Bandyopadhyay 2011), and it would have been more insightful to see some new directions emerging from their work. Using Dalit autobiographies and his own experiences of discriminatory practices at school, M. Murali Krishna provides insights into the multi-layered nature of exclusion that Dalits have to face. In a context, where there is an increasing social distance in government schools between children from marginalised groups accessing these schools and the teachers, whose aspirations are oriented towards middle-class values, the essay has important implications for the nature of teacher education programmes in the country.

The third essay, by Angela W. Little, focuses on the educational experience of Indian Tamils in the plantations of Sri Lanka. Little covers the period from around 1850 till the mid-1990s, and traces factors that both facilitated and constrained education expansion for this specific community. Drawing upon a neo-Weberian approach, Little's historical analysis underlines the importance of 'broad politics' – influences arising from spilling over of socio-political life of the plantations beyond their immediate boundaries – to explain how an uneven education expansion did take place even in the presence of strong economic forces that impeded such expansion. Understandably, the analysis comes with a tone of optimism in contrast to structuralist education theories that only emphasise the role of education in

social reproduction. In the next chapter, Subhash Sharma undertakes a case study of a school in the Champaran district of Bihar and unravels, in minute detail, the ways in which an unaccountable school system is possibly constituted. The study shows how both macro-level factors, such as indifference and vested interests of the political class, irrespective of caste affiliations, and micro-level complexities, such as a nexus of mutually beneficial internal arrangements between parental groups, contract teachers and regular teachers, implicates almost one and all in the way unaccountability is sustained at the school level.

Engaging with some popular misconceptions, Imtiaz Ahmad attempts to provide a somewhat different analysis of Muslim educational backwardness in India. The author, quite correctly, contests both religio-cultural stereotypes about education of Muslims and modernist assumptions about cultural homogeneity and educational values that might be applicable universally. His main argument is that such modernist assumptions underlie the choices of only a small proportion of the entire social strata of the Muslims, specifically the middle class; a middle class that has grown little since Independence because of low enrolment into its ranks from the lower classes that have remained steeped in poverty. However, such an argument, and the policy prescriptions it generates – '[p]erhaps, a second and a decidedly better strategy would be for the community to rely upon its own internal resources and private initiative for developing educational facilities' (p. 140) – tend to devalorize the structural dimensions of inequality which even the Sachar Committee Report highlights and, possibly unwittingly, align with a neo-liberal discourse. The last chapter of the first section is a historical analysis of the education of the Dalits in colonial India. Shashi Bhusan Upadhyay shows how the purportedly more inclusive educational policies, that came about with British rule, were also inherently biased in favour of the social elite from the sub-continent. Upadhyay sees the opportunistic alliance of British colonial interests with the local elite as hampering any real translation of the benefits of the modern colonial education system for the Dalits. This, as the author emphasises, takes place in spite of the efforts emerging from those of the missionaries, independent social reformers such as Jotirao Phule, and the nascent nationalist movement, which articulated a strong demand for a more mass-based education system with a focus on the socially downtrodden.

Only two essays, quite distinct in their approaches and geographies of interest, comprise the second section of the book. Dave Hill draws upon a body of research, primarily from Britain, to emphasise how economic disadvantage is the main reason underlying differences in educational attainments across different social groupings. Indeed, for Hill, an orthodox Marxian analysis well suffices and is better positioned to explain inequalities among social groups, than theories which indicate the importance of other factors such as race, gender, or caste. Such an over-determined position, however, neglects both issues of intersectionality and the rich ethnographic work which show not only how class and caste might overlap, but also work differentially in terms of educational and labour market outcomes (for example, Jeffrey, Jeffery, and Jeffery 2008). In the other essay, Manabi Majumdar and Jos Mooij explore the effects that trends of excessive orientation to examinations and the increasing standardisation of teaching-learning processes have had on education. The authors, in their analysis, concede that while such trends are qualitatively harmful for an overall vision of education as individually and socially empowering, they are more debilitating for the disadvantaged groups due to their lack of alternative and home support mechanisms.

The third section deals with multi-cultural education and rights-based education in four different geographies. In the first of these, Crain Soudien directs our attention to the social

changes amidst which the youth of post-apartheid South Africa, particularly the black youth, are negotiating a precarious sense of identity; one in which there is a sharpening of a sense of individualism and, at the same time, a distancing from a traditional set of values. While inherently not problematic, such a trend is often accompanied with stronger identification with peer groups and peer values that are seen to have negative social and individual consequences. Soudien, unfortunately, does not elaborate on the implications of these trends for school education specifically, and, consequently, leaves us with the platitude that we should recognise learning as a complex social activity. The second essay builds its arguments on a primarily qualitative study focusing on questions of diversity, difference, and education in Ghana. George J. Sefa Dei emphasises the need to treat minority status in terms of cultural status of population groups rather than only statistical numbers and quite aptly points out the importance of tracing out differences that could exist along the categories of ethnicity, religion, language, and culture, even though these categories might overlap in local narratives.

The remaining two essays engage with human rights education, one foregrounding the Roma – a minority population group primarily inhabiting Central and Eastern Europe- and the other having, as its backdrop, the experiences of Croatia since its transition to democracy. Lynn Davies underlines that the strength of a human rights approach to education lies in its multi-dimensionality – incorporation of legal frameworks, normative-cultural dimensions, and economic and political entitlements. She, however, concedes that there are in-built tensions within such an approach, such as instances where specificities of cultural values and practices conflict with a more universal notion of rights. In the other essay, Vedrana Spajic-Vrkas outlines the policy and institutional level complexities and problems that a rights-based approach encounters, specifically in the face of a transition from a history of communism and large-scale ethnic violence in a country like Croatia.

The last section brings the reader closer to the school context and discusses how inclusive practices can translate into specific classroom settings marked by social and cultural diversity. Russell Bishop uses Maori metaphors to locate teaching-learning processes in a culturally situated discourse in which self-determination of learners, interdependence among students and teachers and home-school inter-linkages form the backbone. The author demonstrates the relevance of such an approach through an action research project that uses the dissonances in the narratives of primary stakeholders in schooling – students, parents, principals and teachers – to inform changes in teacher practices. In the second chapter of this section, Dhir Jhingran presents the findings from a research study, covering the states of Assam, Gujarat, Orissa, and Madhya Pradesh, and brings us face to face with the poor pedagogic strategies and efforts that prevail in the varied language environments across classrooms in the country.

Examples of engaged teacher practices are not only inspiring; they also provide ways to connect to complex and innovative pedagogic frameworks. Christine Sleeter manages to achieve this through the portrayal of experiences of teachers in the USA who use multi-cultural curriculum and pedagogy in classrooms marked by diversity. Through this, she draws out a number of significant implications – the feasibility of incorporating marginalised views into the curriculum and classroom transactions, the advantages of using exemplary teacher practices for teacher education, the relevance of learning through diverse peer environments in teacher education and, finally, the importance of connecting such critical pedagogies with broader social movements. The next essay, by Raymond Nichol, through a

scrutiny of a range of ethnographic work on indigenous education in Australia and Melanesia, also pursues the importance of incorporating local knowledge systems into mainstream education catering to indigenous population groups. In the final chapter, grassroots efforts, to engender an alternative pedagogy for historically marginalised groups, finds expression in the endeavours of a voluntary organisation – the Gram Nirman Kendra – which works with the Musahar community in Bihar. Sanjay Kumar and Rafiul Ahmed highlight how this alternative pedagogy imbibes not only a vision of transformation of more immediate education practices but also an imagination of socio-political change through education. The question, however is, how successfully do such efforts integrate with mainstream education processes while, at the same time, retaining their radical transformative potential.

As most edited volumes emerging from conferences, the essays are uneven in their foregrounding of the thematic concerns central to the book. Undoubtedly, many of the chapters provide us a preview into the ways in which exclusion/inclusion is manifest for indigenous or historically marginalized groups across different geographies. However, there is hardly any essay that uses this opportunity to interrogate the purportedly ‘universal’ characteristics of educational ideas such as ‘pluralism’, ‘marginality’, or ‘multi-culturalism’. More importantly, the usefulness of comparative perspectives lies in their ability to use the insights from a particular context or geography to illuminate our understanding of a distinctly different context. The Introduction to the volume rightly emphasises how one of the important endeavours of a project such as this book should be ‘a broader exchange of intellectual frameworks for conceptualising difference and marginality in post-colonial and neoliberal contexts’ (p. 14). However, it is on this count that this edited volume disappoints – first, in terms of a thin engagement with the key concepts framing their discussions, and second, in terms of the absence of any substantive gestures that could help us understand differences and commonalities across diverse geographies and/or in the specificities of the post-colonial and neo-liberal contexts. On the other hand, the volume derives its strength from its unequivocal emphasis on how educators should be able to use difference and diversity, both as a generative device – a means of responding to and incorporating different social groups, and as a critical pedagogic tool – a way of engaging with questions of power that underlie such differences. Overall, the book provides a useful entry for educationists and researchers into the nature and characteristics of exclusion and marginalisation in a number of countries across the globe, albeit with a predominant focus on India.

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NAMBISSAN, Geetha B. and S. Srinivasa Rao (eds.): *Sociology of Education: Changing Contours and Emerging Concerns*, New Delhi: Oxford University Press, 2013, ISBN 0-19-808286-X, pp. x + 277, ₹ 750 (Hardbound).

Sociology of education, as different from educational sociology, is essentially a subfield of sociology. Its significance in the context of India was recognised in the mid-1960s in the wake of the Report of the Education Commission, famously known as the Kothari Commission. Under the auspices of the National Council of Educational Research and Training (NCERT), New Delhi, the Tata Institute of Social Sciences (TISS), Mumbai embarked on a conceptual stocktaking by sociologists engaged in the study of education and followed it up with all-India field study of education from the sociological perspective. *Papers in the Sociology of Education* (1967) and *Field Studies in the Sociology of Education* (1970), the two publications resulting from this initiative (both put together by M.S. Gore, I.P. Desai and Suma Chitnis and published by NCERT), could be said to have laid the formal foundation for a sociology of education in India. Incidentally, TISS also established a Unit for Research in Sociology of Education (since renamed as the Centre for Studies in Sociology of Education), the only such centre in the country.

It is well known that the educational scene in the country today is significantly different from what it was at the time of the inception of sociology of education. The reforms initiated since the 1990s have resulted in the weakening of the state's role in education and a coterminous spread of marketisation and commercialisation of education. Obviously, sociology of education has an important contribution to make in understanding the nature and outcome of these changes. A seminar at Jawaharlal Nehru University, New Delhi, held in 2006, sought to understand how sociology of education has responded to these changes. In the instant volume are put together 11 of the papers presented at this seminar, suggestively titled 'Sociology of Education in India: Looking Back, Looking Ahead'. While the first six papers map the trajectory of sociology of education in India, the last five papers dilate on contemporary concerns and emerging discourse. Editors Geetha B. Nambissan and S. Srinivasa Rao introduce the volume, which is in honour of Professor Karuna Chanana.

Based on their review of sociology of education in India over the last five decades, Nambissan and Rao observe that this sub-discipline 'has been on the margins of sociology and has received greater policy attention as against institutional space in departments of sociology' (p. 18). They aver that the application of sociological imagination is critical to our understanding of how 'structural inequalities, cultural diversity, and identities of different social groups mediate institutional practices and influence learning' (p. 19).

Suma Chitnis provides an autobiographical account of her career as a sociologist of education over 45 years. She narrates her 'institutional experiences' by reflecting on her role as a teacher and researcher at TISS, as the Vice Chancellor of the Shrimati Nathibai Damodar Thackersey Women's University, Mumbai, and as the Director of Jamsetji N. Tata Endowment for the Higher Education of Indians. Insightful as her story is, it is a primary account of the establishment of the sociology of education as an academic sub-field in India. Her emphasis on the importance of team work among sociologists of education in different institutions to advance this sub-discipline is worth reflecting further.

Like Nambissan and Rao, Karuna Chanana also reflects on the marginalisation of sociology of education within sociology. This is indeed intriguing considering that 'more and

more sociologists are writing on [education] and are willingly participating in the process of policy, planning, and applied research' (p. 46). Padma M. Sarangapani looks at this issue from the perspective of education as a discipline. Her analysis recalls some of the early concerns of Basil Bernstein with reference to the framing of knowledge and knowledge-power encounters.

The next three papers have a narrower focus. Nambissan maps the contours of the sociology of schooling in India. She argues, 'the neglect of the study of schools has led to a glossing over of complex processes that mediate school experiences and influence learning of children' (p. 83). Accordingly, she stresses the 'need for sociologists to engage with learning contexts and processes of schooling in order to understand the institution of formal education and its limitations and possibilities in Indian society' (p. 84). Padma Velaskar critiques the sociology of educational inequality in India and presents a 'new agenda' for research on the subject. Using the analytical frameworks of social theorists like Anthony Giddens and Margaret Archer, 'who have tended to integrate systemic theorizing with the play of individual agency' (p. 136), Amman Madan revisits the question, 'Does education really change society?'

The five papers in part two report on the findings of research on specific aspects of education and knowledge. Drawing from ethnographic fieldwork in a municipal primary school in Vadodara in Gujarat, Nandini Manjrekar explores the processes through which 'social experiences and subjectivities that students and teachers bring to the classroom mediate pedagogic processes involved in transaction of "official" knowledge about citizenship and the nation state' (p. 157). G.G. Wankhede reports on the nature, forms and consequences of caste-based social discrimination in educational institutions. Rao elaborates on such discrimination by investigating the process of labelling of stigmatised groups in an Indian Institute of Technology and the resulting structural exclusion in everyday institutional life. Based on a study of Madrasa Ashrafiya Misbahul Ulum (a Barelwi madrasa) in Azamgarh in eastern Uttar Pradesh, Arshad Alam explains the disciplinary mechanisms adopted by the madrasa to 'control' its students. Through her study of Ayurveda education in contemporary India, Leena Ambraham examines the reproduction of indigenous knowledge in a pluralistic culture.

Overall, Nambissan and Rao deserve compliments for both organising the seminar and putting together this volume on a neglected field of specialisation within sociology. The six essays in part one, besides the editorial introduction, are insightful stock-taking exercises on the state-of-the-art of sociology of education. The five essays in part two are some examples of sociologists' engagement with education. A comprehensive volume on the contributions to sociology of education in India is due yet.

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AGARWAL Pawan (2009): *Indian Higher Education: Envisioning the Future*, Sage Publications, Delhi, Pages 480, ₹ 695/-

Higher education in India, recently pitch-forked into policy significance, finds a contemporary manual in the book providing an overview of various aspects of India's higher education policy, while delving into the wider contexts of change. In the 'Introduction,' Agarwal regrets that "rather than pragmatism, it is populism, ideology and vested interests that drive policy." Ideology is a bad word, while pragmatism, that grants primacy to the immediate-over the long-term vision, is the supreme virtue. This is the undertone of the entire book. What is the driving force behind the so-called pragmatic policy making? Is it not, to a great extent, the power of the "vested interests", Agarwal bemoans in the same sentence. I wonder if he would dismiss as 'ideology' a basic premise of the Yashpal Committee report that says "revitalising the idea of university in an entirely new egalitarian context is the need of the hour." Overall, the book is a highly useful compilation of valuable information, but somewhat flawed by a limiting vision.

The chapters deal with structural issues, access and equity concerns, private higher education, financing and management, workforce development, research, regulatory tangles and the need for quality management. Agarwal's principal tool throughout is empiricism, where data provides the basis for formulating and implementing policy change. Agarwal does not seem bothered about existential concerns related to higher education's constitutive value. Higher education, to him, is instrumental because it 'provides a workforce to a technologically- driven knowledge economy' (p. 168), and, hence, is essential to economic growth and competitiveness. Conversely, the poor quality of higher education will result in skill shortages in the economy and will affect productivity negatively. Agarwal's argument, therefore, is that 'there is need to enlarge the adaptive capacity of the higher education system so that it is more responsive to the changing world of work and meets the diversified needs of the economy, both domestic and global' (p. 242). In short, higher education is about economic growth, quality of life and social opportunity.

A sobering reality is the data on India's gross enrolment ratio (GER) (ratio of persons of all ages enrolled in higher education with respect to the total population in the 18-23 years age group). India's GER in higher education is only around 11.4 per cent compared to the world average of 24 per cent and that of high-income countries at about 67 per cent. According to Agarwal, India has the third highest number of enrolments in the world after China and the United States (US). However, the size of higher educational institutions in India is highly variable and the system as a whole is 'very fragmented' (pp. 6, 36). Moreover, for a country possessing considerable ingenuity in dealing with the daily rough and tumble, India's record in innovation and high-end research is not enviable. Agarwal cites India's paltry record in patent application (Patent Cooperation Treaty) and finds that the number of science and engineering doctorates in the country is only 8,500, compared to over 25,000 in the US. There are also disparities in enrolment across various categories: rural-urban; inter-state; gender; inter-religious; special social groups; income; occupational groups; and caste. Increasing access to, and providing greater opportunity in higher education, therefore, becomes one of the most powerful levers for ensuring social equality and alleviating poverty.

If the central government's aim of increasing GER three-fold by 2020 is to be taken seriously, the system must be expanded. This growth will be based partly on new state-run

institutions, for which fresh outlays have been provided. The private sector will also start playing an increasingly significant role. Agarwal rues the fact that the growing role of the private sector in expanding access is often overlooked. Viewed with suspicion, it is instead often seen as compromising equity in access. If the bulk of the public education budget must deservedly go to primary and elementary education, the role of private financing in higher education can no longer be brushed under the carpet or met with the derision usually reserved for profiteers. A better idea would be to create an environment that is conducive to exploring the mechanisms for managing complex systems with a multiplicity of actors.

The private–public issue itself is complicated, with various shades of gray. Even for existing institutions, there is a need not only to increase resources but also to change the ways in which grant allocations for universities are currently structured. Nearly 65 per cent of the UGC budget is used for meeting the operating expenses of the central universities and of Delhi University colleges, leaving only 35 per cent for the rest of the universities in the country. More than 90 per cent of the grants go towards meeting operating expenses, leaving very little for institutional growth and capital assets. There is very little incentive for institutions to raise resources. Private funding faces implicit disincentives under the current tax and trust laws that discourage donations. Advisory and consultancy services are not encouraged. Agarwal does not mince words when he writes that ‘the amount of funding an institution receives is largely based on what they received the year before or how powerful their friends are in the government or funding agency’ (p. 149). He argues for an objective fund allocation mechanism that is outcome focused and performance based. On the other hand, regarding the role of private providers, he quotes Gresham’s Law, that bad providers seem to be driving out the good, for want of effective regulation. This, however, he argues, is not the same thing as regulatory overreach.

Agarwal perceives the need for regulatory reform in a changed environment where higher education is not just publicly funded. He points out that supply is constrained by regulatory barriers. Arbitrary, complex and non-transparent procedures, in turn, encourage corruption and patronage. Rather than adopting a paternalistic centralised system, he advocates tackling information asymmetries and market failures by implementing strict and compulsory disclosure norms. Networks of open-ended communities would then facilitate peer review, coordinated by an independent quality agency. Within the framework of transparency, ‘a flexible regulatory environment’ (p. 353), in Agarwal’s opinion, would need to adjust to ‘the growing diversity and modulate according to varying track records of higher educational institutions’ (p. 153). He calls for a road map for streamlining regulation through decentralisation and for developing effective coordinating mechanisms. This is more complex terrain than that presented by the black-and-white portrayal of the usual regulation-or-no-regulation scenario in India.

For all its merits, this is a book written by a technocrat for technocrats. The public policy that Agarwal champions looks at what he calls ‘rhetoric’ with some disdain. There is little politics, history or sociology. He misses out on that part of higher education where the mind can be free and the head held high. A ‘vision for higher education’ could have found some space for the life of the mind and its cultivation as a goal in itself, whose worth no academic worth her salt would deny. Agarwal predictably does not highlight the role of higher education in creating a climate of intellectual freedom in society, nor does he discuss the declining freedom for academics in the country. He acknowledges that universities are

meant to be 'self-regulating' (p. 313) institutions, but does not examine how collegiality could be moulded or developed over time. Nor does pedagogy figure in his analysis. Social justice finds mention, but Agarwal steers clear of the contested terrains of identity, liminality, autonomy for the individual and, generally, the transformative role of higher education in politics and society. From a holistic lens (if that oxymoron is permitted), this is not a 'vision for higher education', but rather an attempt at presenting a vision for 'higher education *policy*' in India.

This book cannot become a classic without the holism. However, if Agarwal revises his numbers every year, it could become a reference that no one in the business of higher education could ignore. Joining a long line of bureaucrats who think about what they do, Agarwal deserves praise for turning professional engagement into personal enquiry and curiosity. This book deals with the contested terrain of higher education in India. The National Knowledge Commission says higher education faces a "quiet crisis," while a former Human Resource Development Minister called it "a sick child." It is uniformly recognised that there is need for a major paradigm shift in education as a whole, including in higher education.

The recent reports of the National Knowledge Commission and the Yashpal Committee, the 11th Five-Year Plan providing a nine-fold increase in outlay for higher education, and the United Progressive Alliance government seeking to focus on public-private-partnership and on opening the country to foreign universities, all these together constitute the immediate context for the heightened pitch of ongoing debate.

Authored by Pawan Agarwal, an IAS officer who has had the advantage of viewing the education scenario from a vantage point, the book is an impressive collection of relevant, valuable and diverse data, assiduously gathered from many sources, and this makes it a "useful base document for opening a fresh debate" on higher education policy.

The basic issues identified as central to Indian higher education are access, equity, relevance, and quality. The 11th Plan puts them as "expansion, inclusion and excellence." The book has marshalled a vast array of data related to these areas. The inferences that may be drawn from them need not be the same as the author's; in fact, they may even be anti-thetical to his.

The book presents international comparisons that could be valuable reference points for policy-making as, for instance, India's public expenditure on higher education per student is \$400, as against \$575 in the Philippines, \$2,728 in China, and the highest being \$ 13,035 in Sweden. It also brings out the huge disparities in enrolment, the highly skewed funding, where 85 per cent of the total central expenditure goes to support only three per cent of students.

On many issues of vital concern, however, the author is bafflingly non-committal; he stops with merely juxtaposing contradictory positions. Take, for instance, the first of the fundamentals, access or expansion that subsume equity and inclusion. The general enrolment ratio (GER) in higher education in India is around 10 per cent, which is pathetically low compared to the 25 per cent recorded by many developing countries. The ratio in developed countries is far higher, ranging between 55 per cent and 91 per cent.

The 11th Plan fixes a target of 15 per cent, with the figure expected to rise to 21 per cent by the end of the 12th Plan. We have a long way to go even to attain such modest levels. If 90 per cent of the relevant age-group has remained outside the realm of higher education, it is

mainly because this segment cannot afford the cost. As it happens, the growth in higher education over the past three decades has come about in the high fee-charging private sector, with many of the institutions apparently driven by the profit-making motive and the state virtually surrendering the field to them. The vast majority has perforce to stay outside the charmed circle. Increasing the GER is possible only if public-funded institutions are set up in large numbers, where the state invests and charges low fees. This elementary logic seems to elude the champions of further privatisation of higher education and Public-Private-Partnership. Agarwal, unmindful of the grim reality, regrets that “though private higher education enhances access, it is often viewed with suspicion and seen to compromise equity in access.”

For a book that is meant to straddle the whole world of higher education and that claims to “envision the future,” it is surprising that it has not visited the important epistemological issues underlying higher education. The exhaustive discussion of the linkages between the workforce requirement and the skill development role of higher education seems to imply that the latter is the primary, if not the exclusive role of higher education. To be fair to the author, he acknowledges that the book’s emphasis “on the economic role of higher education reflects ...contemporary reality, though civic, moral and intellectual purposes of higher education are important and will continue to be so.”

It is surprising that India has no major higher education research centre and no group of researchers focusing on this key subject. Higher education as an academic subject is not taught in Indian universities, and the large cadre of administrators in India’s sprawling higher education system have no training on how universities function, their role in society, or the finances or academe. This is in sharp contrast to China, which has an extensive network of higher education training programmes attached to universities, several excellent higher education research centres, and a general understanding that policy and management of higher education is a matter of considerable national importance.

Pawan Agarwal’s book is important because it provides the beginning of a dialog about higher education that can inform policy discussions. It discusses most of the central issues facing India’s higher education establishment including the immense challenge of funding the massive system in ways that can provide quality and access, regulation and quality assurance, workforce development, the role of research, and others.

The fact is that India’s higher education system is well below the standard of the countries with which it is competing globally. India has no universities anywhere near the top in any of the international rankings. Only the IITs, which, of course, are not universities but are small technologically focused institutions, show up in the rankings. Only one or two of the universities are anywhere near the quality of competitors in China, Korea, Singapore and other rapidly developing countries. Some argue that while India graduates large numbers of engineers and other technologically oriented people, many do not have the skills needed for the global economy.

Many bright Indians choose to study abroad in part because they cannot get the quality that they want at home and a large majority does not return home. India has several competitive advantages. The widespread use of English, some innovative high tech and other companies that can absorb well-trained graduates and a large population of bright and energetic students, all contribute to India’s potential. Yet, without careful attention to improving the universities, providing more adequate funding, expanding the top-quality

sector of the system, eliminating corruption and ensuring that students, who get access to higher education can successfully complete their studies, India's academic potential, and eventually its economic success, will be jeopardised. This insightful study on the state of higher education in India will be of interest to scholars and practitioners in the field of education as well as policy-makers at every level of administrative reform.

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CHOU Chuing Prudence and Gregory Ching (2012): *Taiwan Education at the Crossroad when Globalization meets Localization*, Palgrave Macmillan, USA, 175, Fifth Avenue, New York, Ny-10010 Pages: 289+vii to xxiii (hardbound), ISBN: 978-0-230-11089-2. Price not stated.

The book, under review, is 14th in the International and Development Series. The preface, running into six pages in addition to two page references, series editors' introduction, opinion of the three professors about the book printed on the back of the flap, and second and third paragraphs of acknowledgements, go to show that the book is a well researched scholarly work.

The book is a detailed case study of the transformation and development of the Taiwanese education system in the wake of globalization, internationalization, and localization from pre-school to higher education. The issues examined and policies implemented to resolve them have wider implications in the sense that education sector in many countries, whether developed or less developed, have faced or are still facing issues similar in nature, by and large. For example, the issue of quality of education is one of the major issues being faced by the USA. It is found that there is no significant improvement in cognitive gains over four years among 36% of college graduates." According to data gathered by the chronicle of higher education and American Public Media's marketplace, half of the employers say "they have trouble finding qualified recent college graduates to hire". (Special Time Report on Higher Education, P. 42, October 7, 2013). Recently, American newspapers reported on the front page such headlines as "Schools in trouble, and the sooner we admit it, the better"; "Teacher evaluation is vital part of improving schools"; and "Teachers must drill students to instill a real desire to learn" (October- November, The Times, Sunday edition. Bay Area News Group).

Taiwan is one of the four Asian Tigers economically and it cannot be called less developed educationally. Taiwan is a small island with a population of a little over 23 million. Taiwan, even after 50 years of independence, is officially known as Republic of China. Its GDP per capita (US\$31,834 in 2009) at Purchasing Power Parity (PPP) is ranked 43rd in the world. Rate of access to education at all levels is highest, outnumbering many of its counterparts in Asia. Percentage of graduates admitted to the next level of education in 2010 was more than 90 at primary, junior, and senior high schools. Illiteracy rate is just 2%. Six year compulsory education was raised to nine years in 1968. Life-long learning opportunities are available to people of all ages, especially senior citizens. According to

Taipei News, Taiwan's Human Development Index (HDI) is above that of mainland China. However, in the annual Human Development Reports published by the UNDP (United Nations Development Programme), Taiwan's Human Development Index (HDI) has not been mentioned along with the HDIs of other countries of the world. At least five universities of Taiwan have found place in the world universities rankings. (World Universities Rankings-Times Higher Education Report, October, 2013).

Then why is the book titled "Taiwan education at the crossroad when globalization meets localization"? This fascinating title hints at the dilemmas and issues that a country has to face and overcome, when its education system is expected to "strike a balance between enabling institutions to become more international in outlook and honouring local customs and traditions". In case of Taiwan, globalization (also internalization) and localization are not the question of '*either/or*'. In fact, the Taiwanese education system is to be localized and globalized simultaneously.

The answer is found in its chequered political history, featured by Japanese colonization (1895-1945), re-sinization after world war second followed by de-sinization era (1998-2008), diplomatic isolation during 1970s, when it withdrew from the United Nations ,and suspended diplomatic relations with the US and also by the present political climate of polarization between the two main parties (DPP and KMT). The purpose of Taiwan's education during Japanese and later Chinese occupation was respectively to assimilate local people into Japanese culture and to promote mainly Chinese national identity. China still regards Taiwan as a rebel region that must be reunited with the mainland China. As such, it is still a dominant political issue. The loss of identity during conflicts with Japan and China was a major localization issue.

Though Higher Education Excellence Plan aims at making Taiwan look better on the international stage, but the plan has generated dilemma between attaining global competitiveness and meeting local challenges. The Plan was revised somewhat to accommodate local needs and the universities' goals when questions were raised on its benefits to people, its intention to help every Taiwanese student, and stratification and polarization between higher educational institutions.

TAIWAN and, for that matter, any country in the world aiming at transforming and developing its education system, has to take account of changed or changing environment locally and globally. The society in Taiwan began demanding the deregulation, democratization, liberalization, and diversification of education once the political and economic environment had improved. On the other hand, the emergence of the knowledge-based global economy, in the wake of the information, communication, and technology revolution (ICT), has made the educational authorities conscious about the international mobility of university graduates by improving their competence through higher educational standards compatible with the global level. In this context, the authors, who are educationists themselves, have made a sincere effort to narrate insightfully the transformation and development of education in Taiwan from the bottom to the top. According to the authors, all the three levels of education have to face the impact of globalization. Thus, these are some of the global and local issues to be dwelt upon in any policy of transformation of Taiwanese education system. The mission of transforming and developing education system is to make it dynamic and socially responsive locally and competitive globally.

It is categorically stated in the book that Taiwanese education policy aims no longer to focus on quantity but mainly on quality. Of the many questions that have remained unanswered, the most relevant question from the global perspective is: whether the quality of education has improved? At many places in the book the reference to quality reveals that it has declined. It is rather intriguing since Taiwan plans to raise the world ranking of its universities.

Since Taiwan has taken education as one of the important avenues of nation-building and economic development, it is making sincere efforts to make the best of both worlds through its mission of converging local and global forces. In order to comprehend these forces, readers have to go through the first six chapters of the book. In order to understand as far as possible ideological conflicts between globalization and localization in the context of shaping Taiwanese education system for the future, the authors have rightly devoted chapters on the past history of Taiwan's economy, polity, society and education. The reading of these chapters is a good beginning for a deeper insight into the issues and challenges of localization and globalization elaborated in the remaining chapters of the book.

Along with globalization, the Taiwan government has embedded the neo-liberal principles of market and privatization of the education system as a way of relieving government budgetary pressures. Chapter seven not only throws light but simultaneously raises questions on issues such as governance, funding, privatization of education, quality of teaching and research, outcome of differently situated social groups, etc. with regard to all the three levels of education which need to face the impact of globalization and internationalization. Chapter eight, the longest chapter, examines the structure of pre-school education, primary education, and secondary education, while highlighting their relevance and importance in promoting localization and internationalization of the foundation of the education system. The section on recent high school reform needs extra attention. Like the 10+2 none-too-happy education reform in India, in Taiwan the streaming of the three types of high schools—general (academic), vocational (terminal stage, where students are required to join work places related to their training to meet manpower requirements instead of pursuing university education), and comprehensive (academic + vocational) schools has failed to fulfill its original objectives. Instead, schools have prompted their students to pass university entrance exams and then become buffers for reproducing the older type society and its hierarchy.

Chapter 15 on 'Reform Schemes for Students in Need' mostly focuses on the needs of school children. Even when Taiwan faced the pangs of economic turmoil, it did not allow its education system to stall its dynamism and social responsiveness by allocating more funds to help affected students continue their studies. Second, it sought to make young citizens internationally competitive by creating international environment in schools, enhancing competency in foreign languages and promoting e-learning. The micro managerial aspect of education reforms in Taiwan contains policies focusing on the country's heritage and minority populations, such as aboriginal children and children of foreign spouses, in order to achieve the objective of equality of educational opportunities by including widely spoken languages other than the national language of Mandarin.

Chapters nine to 14 focus on university system as "It is the central institution of the knowledge economy both transformed by and transforming our increasingly globalised world". (Carnoy Martin, et. al." *University Expansion in a Changing Global economy-Triumph of the BRICs?*" - electronic resource).

Voicing their concern about the popularity of the *de facto* parallel education system (known as shadow or cram schools) helping students to pass various entrance examinations, with its accent on information and rote memory and virtually implying the total neglect of training in critical thinking and analysis, the authors raise questions about the place of public schools, the fate of the children of poor families not able to afford the costs of sending their wards to shadow schools. "Can public schools provide a high quality competitive education that meets the needs of students from more disadvantaged backgrounds"?

Rapid expansion of higher education in Taiwan characterized by (a) the unprecedented growth of private universities and (b) increased access, irrespective of the students' social background, gender, ethnicity and age, is nothing short of rapid quantitative expansion of higher education, bypassing the oft repeated advice that *selectivity* in admission counts very much at this level of education while also ignoring the impact of low birth rate on demand for admission into universities in the near future. The so-called rapid expansion of higher education was uncalled for as it raised issues of declining quality, mismatch between labour market requirements and credentials and the resultant issue of educated unemployment manifesting in the non-alignment between universities and industry and the corporate world.

Moreover, in the true spirit of neo-liberal ideology, expenditure on education in Taiwan, as a proportion of GDP, declined from 6.37% in 1995 to 5.74% in 2005. Consequently, the share of public expenditure declined from 5.20% in 1995 to 4.24% in 2005 and that of private expenditure increased. Investment in pre-school education and compulsory education suffered in the process. Public-private dichotomy is clearly visible at the kindergarten level where, because of few public kindergartens, 60% of children are forced to attend high-fee charging private kindergartens. These trends in investment in education have reduced the pace of social class mobility relative to the past. This observation made in the book corroborates the research finding that "children's experiences-both positive and adverse-directly influence how their brains develop and whether they grow up healthy, prepared for school and successful later in life". (The Time Sunday, Bay Area News group, November 24, 2013)

To address the issue of quality, the quality assurance policies have been implemented and reinforced since 2005, based on the revised Taiwanese University Act of 2003. The regular evaluation of universities, as a major mechanism for quality assurance, and ranking of universities, on the basis of performance evaluation, has already been implemented. In addition to this, the current seniority and degree-based salary system was replaced by the new system of flexible salary for public universities with the hope that this will result in better teaching and research quality as rewards are linked to faculty performance. What is the final outcome of the Quality Assurance Plan? The simple answer as per the authors' evaluation of the Plan is that "whether university quality has been improved or not and who benefits from these new reform policies remains an open question in Taiwan". Taiwan's higher education entered a new era, once the University law was revised in 1994 and legal restrictions were relaxed and Taiwan joined WTO in 2001 and, with that, began the process of globalization of higher education. The moot question of quality still looms large even after pursuing vigorously the policies of providing incentives to the universities for pursuing excellence to offset the declining quality of universities due to rapid expansion and cuts in public budgets.

Other policy measures like World-class Research University Project (2003), Higher Education Excellence Plan and follow-up evaluation programme throughout the process to control outcomes, despite making significant progress, have created the conflict between attaining goals of competitiveness and local needs. Quality has not improved relative to expectations because of three factors: (1) "prevalence of academic chaos in the absence of professional values and ethics making it impossible for any meaningful evaluation of academic performance". (2) "Departments concerned responsible for implementation and monitoring of educational policies also cannot easily solve the problems of quality and academic research". (3) Adherence to the policy of the number (quantity) of research papers published internationally for promotion and reward, "the quality of research and teaching has suffered, thus impacting students' rights and the goals of academic development".

Though internationalization effort has still been not integrated into the mainstream of higher education, questions raised and discussed in this regard deserve attention from countries which intend to initiate internationalization process in their educational institutions. Such questions relate to motivation for and goals of internationalization its role in improving and maintaining a competitive edge, barriers to internationalization, costs, benefits, and risks of internationalization, market for international students and the mechanism to evaluate the performance of the process of internationalization.

The three international publication indicators, adopted by the Taiwanese ministry of education, were (1) Social Science Citation Index (SSCI), (2) Science Citation Index (SCI), and (3) Engineering Index (EI). These were adopted with the hope that they would help in enhancing the international competitiveness of higher educational institutions while also raising the status of a research university to a world class research university. This would also be useful in the ranking of each university and college which is the base for funding decisions and for hiring teachers, and for granting their tenure and promotion.

The use of these indices has not found favour with academicians as this method of evaluation supports research in pure sciences, with its focus on global topics, and is written and published in English language journals as opposed to research in social sciences and humanities, with its focus on local issues and written, by and large, in local language. This type of evaluation has created a sort of conflict between their academic standing and in the allocation of resources and while also being responsible for ideological conflict between globalization and localization processes.

The objection against the English language hegemony in education cannot be fully justified as Taiwan wants its higher educational institutions to be globally competitive, and particularly its research universities to be world class. Is this possible without the use of English since English plays a prominent role in ICT revolution? Even Taiwan's language policy favours the use of English along with other languages (Bilingual language policy) in primary schools. The second-tier label, associated with scholars of social sciences and humanities, may be removed by placing their works on an equal footing with those of pure sciences, written either in English or other languages, at least for the purpose of allocation of resources. This is how the ideological conflict between ongoing processes of globalization and localization as also the issue of unequal allocation of resources between pure sciences and social sciences/humanities can be resolved.

The hue and cry raised against the policy of allocation of funds on the ground of polarization and stratification of educational institutions and society is not well founded in a market-driven higher education system where quality goal enjoys supremacy over other

goals. If stakeholders are motivated by financial profit in the growing international market for students, then the profit so generated can be diverted to second-tier universities and colleges to improve their academic standing.

Chapter 16 on 'cross-strait relationships between Taiwan and China' not only focuses but also stresses on how important it is to normalize once politically troubled relationship with neighbouring countries, particularly with China, by shifting from hard line to liberalized approaches that allow educational, cultural and academic dialogues and debates between citizens, students, teachers and educational institutions of the two nations. Both the countries are trying to share the Confucian belief in the "inclusive and diverse: civilization of co-existence" to further improve their relations.

The last chapter is the highlight of the book where the authors have most competently narrated the issues of globalization and localization of Taiwanese education system in a broader perspective, highlighting reforms' successes and shortfalls and a blueprint for prospective education policies for the next generation. They have also raised some difficult questions about the accomplishing of more than a decade old educational reforms, particularly regarding the quality of education.

Development of Education in Perspective

One thing that should occur to critical thinkers is about the goals set for the expansion and development of education. Most interestingly, the education sector, better termed as the education 'industry', has to face the complex multiplicity of goals such as access, equity, quality (excellence, efficiency), social mobility and also simultaneously sustain traditional values at all the levels of education. One pertinent question raised by the authors in this regard is: "If technology guides a country's values and distribution of resources, should education still take up the heavy responsibility of passing on traditional values"? The fulfillment of multiplicity of goals appears to be unrealistic in societies plagued by in-built economic and social inequalities, and rising income inequalities in the world, wherein students' outcome is positively associated with family background, create barriers to entry in the local and international education systems. It seems, the multiplicity of goals has made a *mess* of the education system as too many crooks spoil the broth.

With reference to the Taiwanese higher education, the dilemma of quality versus quantity is clearly visible on account of the unprecedented growth of private universities where students are admitted by diluting admission criteria. Now, the higher educational institutions face the music of merging or closing down due to the shortage of students in the wake of decline in birth rate. Dichotomies of various sorts have also cropped up in the shape of public- private schools, between top-tier public and private universities, rural/urban areas, between have/have-nots in scholastic ability, and between the high/low ranking educational institutions vis-a-vis the allocation of funds and resources, etc.. For increasing the flow of international students, quality of education has a great impact regardless of price, when education is an internationally traded private good. One of the aims of Taiwanese institutions of higher learning is to further increase the flow of international students by upgrading quality to avert the negative impact of declining birth rate on the very survival of higher education institutions in the near future.

What is the rationale of following multiplicity of goals in an age of global academic revolution, unlike the human capital revolution of the early sixties, where the invisible hand of market dominated? Is not the time ripe for assigning priority to goals at each level? For

instance, at the tertiary education level, it may be only quality goal whereas at the pre-school and primary school levels, a combination of goals may prevail. The creation of the level playing field in a global market for students, teachers and research products seems to be in tune with the philosophy of the survival of the fittest. However, for that, the process of level playing has to be initiated from the very foundation of the education system.

Measures to raise quality of higher education such as particularly competitive funding, flexible salary structure, performance-based reward, ranking of the universities on the basis of research publications and such quality assurance plans have not yielded the desired results. Taiwan's efforts to bring some of its universities from midway or from near bottom to top ranking world-class universities have experienced a real dilemma between globalization and localization as mentioned earlier.

The case of Taiwan as an excellent example of the influence of neo-liberal principles in higher education policy since 1980s, as claimed by the authors, is half-truth, at least in terms of increasing effectiveness and improving educational quality. On the contrary, education has become, by and large, a *non-priority* sector for the government in terms of funding, and its efforts to mobilize resources from non-governmental sources have met with limited success. This uncertainty of funding results from the changing perspective about education as a public good and as a merit good to a private good.

Regardless of the nature of education as a public merit, or a private good, the question arises as to What could be the appropriate model of Public-Private partnership (PPP) nurturing, sustaining, and promoting two sides of the quality coin-research/teaching? The answer demands a fresh thinking on the part of students, teachers, and policy-makers leading to the adoption of a suitable PPP model. The ambition to succeed in a global economy has to focus on this basic question.

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Donald E. HELLER and Claire CALLENDER (editors) (2013): *Student Financing of Higher Education: A Comparative Perspective*, London and New York: Routledge, ISBN: 978-0-415-53596-0 (hard-bound), pp. 257 + index

Globally, there have been significant shifts in financing of higher education. One major shift refers to shift in public funding, from institutional funding to student funding. The shift supports the principle of student choice, a principle that is being increasingly valued for right and not so right reasons. Student funding, instead of institutional funding, will allow students to choose an institution of their choice, and this, it is claimed, will increase competition among the institutions and improve efficiency. It is also widely realized that student funding, when it is not specifically confined to students in public institutions, would mean indirect funding of private institutions, resulting in an increased growth of private higher education. As promotion of private higher education is also becoming an acceptable public policy in most countries, student funding is becoming a highly favoured practice. In

many democratic societies, where student power is dominant, once introduced, such a reform becomes irreversible, as it is associated with political gains as well.

However, there is no unique method of student funding in higher education. To start with, this is not altogether a new reform, as most countries provide student aid under different nomenclatures such as grants, scholarships, loans, tax credits, family allowances, etc.. But these are relatively small in size and they were not seen as substitutes to providing regular grants to institutions. Institutional funding has been the dominant feature of funding higher education for a long period. Today, student funding is being viewed as an alternative strategy to public funding of higher education institutions.

These and related issues are thoroughly analysed in the book under review by 15 eminent scholars in about a dozen chapters. Divided in two parts, the book provides a critical discussion on cross-national issues in student financing in Part I, and four country/regional studies in Part II. Political ideologies play a significant role in deciding about the methods of public funding of higher education. Neo-liberal ideology is emerging as the most dominant one of the 21st century all over the world. Concentrating mainly on the issue of loans versus scholarships, Pamela Marcucci describes how the changing ideologies determine the government choices. Adrian Ziderman, an expert on student loans, provides an excellent overview of student loan schemes around the world, and how they have been reformed in some countries like Australia, England and Thailand in recent years. In another chapter on student loans, Jeffrey Williams describes how student loans that shift the responsibility of funding higher education from the taxpayers to the students, contribute to privatizing what had traditionally been regarded as a public good. Judith Scott-Clayton highlights the role of information about student aid programmes in enabling students to make wise choices. While growth of private higher education is not a new phenomenon, growth of for-profit private higher education sector is of recent origin in many developing countries and also developed countries like the USA. The financial aid policies in US have contributed a lot to the growth of such corporate private sector in higher education. In an interesting article, in this context, Kevin Kinser examines the federal government student - aid policies in higher education in the United States of America. Claire Callender reminds us, through an important article, that most student- aid policies are meant for full-time students only and rarely do they cater to the needs of part-time students. There have been some changes in a few countries like England and Callender argues that other countries can learn from the experience of England. Another category of students, who are also not well- served with student aid programmes, is that of students going abroad for studies, though some countries provide loans or direct subsidies for their own students for their study in foreign countries. Paradoxically, national funding policies, such as steep tuition fee increases in the United Kingdom, may drive force students to go abroad for studies, as Rachel Brooks and Johanna Waters describe.

In Part II, while Daniel Levy and Prachayni Praphamontriping Kanwar focus on privatisation and student finance in Asia, Pundy Pillay analyses problems of student financing in Sub-Saharan Africa. The chapter on Sub-Saharan Africa also provides a good description of student loan programmes in Ghana, Kenya, South Africa and Tanzania. The country studies are on US by Barrett Taylor and Christopher Morphew, and on China by Po Yang and Baoyan Cheng. The China case study also brings to the fore the point that aid has an impact on a variety of aspects – leaning and non-academic development, career and employment, etc., which need to be taken into account while formulating such policies.

The book, on the whole, is a useful collection of articles on financing of higher education. The cross-national studies, as well as regional and country studies provide valuable insights into a few selected aspects of financing. There is a lot that countries can learn from each other and the book serves this purpose very well.

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