

Data Sources: International Student Trends

It is well known that India and China are the two largest sending countries of graduate students to the US. This is in part a natural result of the large size of the total population of each country, but the number of students enrolling in the US from each country has also been rising. Despite recent downturns, according to the Institute for International Education and their Open Doors reports, between 1995 and today, the number of graduate students from China increased 51% and those from India increased 125%. The ability to send students to study abroad at the graduate level is dependent on a sufficiently robust primary, secondary, and undergraduate system. Students earning bachelor's degrees must also have sufficient family or private savings to support their attempts to enter the admissions and visa processes. The government must also have policies in place to encourage students to travel abroad for their graduate degrees. China and India have each been able to accelerate development of their educational systems in order to prepare such large numbers of students to attend graduate school in the US. Each country has also seen overall economic development that allows large numbers of students to travel abroad for graduate school.

Not surprisingly, the large public investments made by each of these countries at the K-12 level over the last 20 years are increasingly being made at the university level. For example, in 1950, there were 27 full universities in India, in 2001 there were 272 (Guo 2005). As a result, the opportunity for Chinese and Indian students to study at home at the graduate level is growing. One implication of this for US graduate schools is the potential that fewer Chinese and Indian students will seek to study in the US. There are, of course, equally compelling reasons to believe that this potential will not become reality, particularly if China and India cannot develop the graduate capacity or quality to retain their own students, or if the acceleration of undergraduate education in each country leads to more students qualified for graduate study at home and abroad.

In speculating about any future scenario, it is important to note that China and India were not always such significant sending countries, particularly relative to other countries (See Table 1). If we look back twenty-five years, in 1980 the top five sending countries of international students (undergraduate and graduate combined) were Iran, Taiwan, Nigeria, Canada, and Japan (India was 9th, 9,250 total students in the US, and China 27th, 2,770 total students in the US). Today, Canada, Japan, and Taiwan still send large numbers of students to the US, but Iran (1,475) and Nigeria (6,140), for different and complex reasons, send many fewer

students to the US and are no longer among the top 15 countries in terms of sending students to the US.

One question to ponder is, looking ahead, are there countries that may not now be sending relatively large numbers of students to the US but may in the future? By examining recent trends in international student flow and other demographic changes, we might be able to identify certain countries that are now showing the signs that China and India did in the recent past.

There are a variety of demographic trends we could look at to understand the emergence of China and India over the last decade. For instance, adult literacy in China has grown over the last 20 years. According to the World Bank, between 1985 and 2000, the adult literacy rate increased from 73% to 90%. Another excellent source of information on educational trends is *Asia's Educational Edge: Current Achievements in Japan, Korea, Taiwan, China, and India* (2005) by Yugui Guo. The book summarizes volumes of education-related statistics from a variety of governmental sources. According to Guo, Chinese student enrollment in higher education experienced notable growth in the 1980s and 1990s. For instance, higher education enrollment grew 22% in 1985 and 11% in 1986. In the late 1980s and early 1990s, there was little change, but significant increases in higher education enrollment returned in the mid 1990s with a 16% increase in 1994, a 10% increase in 1995, and a 4% increase in 1996. By the early 2000s, higher education enrollment in China reached new heights, growing 35% in 2000, 30% in 2001, and 26% in 2002. Interestingly, in this latest period, higher education enrollment has accelerated while primary school enrollment in China has been decreasing.

In India, the growth in higher education enrollment has been equally notable and tracks with changes in adult literacy. The adult literacy rate in India has increased from 45% in 1985 to 57% in 2000. Between 1970 and 2000, higher education student enrollment grew from 2.5 million to 7.1 million. The participation of women in higher education is

one of the factors driving this growth. In 1950, women made up 10% of higher education enrollment in India; by 1997 (the latest date available) that figure had grown to 40%. Similar to China, primary school enrollment in India has flattened, approximately unchanged, at 114 million,

between 1999 and 2001.

There are numerous other demographic trends that would approximate each of these cited above. Examining these in greater detail would present an approach to better understanding developments in China and India. We can also use these trends to focus on other countries at similar developmental positions today. For instance, we might examine countries that have had recent upturns in sending international students to the US. While small in comparison to China and India, recent trends

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Table 1: Total Number of International Students Enrolled in US Institutions

Rank	1980	2005
1	Iran (47,550)	India (80,466)
2	Taiwan (19,460)	China (62,523)
3	Nigeria (17,350)	Korea (53,358)
4	Canada (14,320)	Japan (42,215)
5	Japan (13,500)	Canada (28,140)

Source: IIE Open Doors

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might be suggestive of further growth in the future. Ghana, for instance, increased the number of graduate students it sent to the US 63% between 2001 (772 students) and 2004 (1258). Peru increased 34%, Kenya 32%, and Jamaica 23% over the same time frame. If we examine these countries in terms of adult literacy: Ghana increased its adult literacy from 51% in 1985 to 74% in 2000; Peru from 83% to 90%; Kenya 64% to 83%; and Jamaica from 80% to 88%. Similar statistics could be cited in regard to enrollment at the primary and secondary sectors. It remains to be seen whether these positive trends translate to substantially larger enrollments and the higher education level, the most immediate link to sending preparing students for graduate education.

Undoubtedly a full explanation of why China and India have been able to expand their economies and the number of international students sent would have to take account of many more political, social, and economic factors. No single variable or set of variables easily captures the complexity of factors that trigger national development. It is also obviously uncertain whether the recent growth in graduate students from Ghana, Kenya, Peru, and Jamaica will be sustained over time. Other countries, such as Mexico, Turkey, and Thailand, send substantial numbers of students and may in fact have greater resources to prepare and support students to come to

the US to study. What is presented above is a simple and primarily conceptual approach to examining the landscape of international student flows with a more historic approach than is typically employed. Frequently, more concern is expressed about immediate trends and annual changes, than about historic patterns. To better understand future international student trends, it may be useful to take a more historic approach and employ more advanced analytical techniques. In doing so, stakeholders in graduate education might be better positioned to understand current patterns of student enrollment and anticipate future trends such as the emergence of new sending countries.

Further, more in-depth inquiry into international student flows might focus on the extent to which the return of US-trained graduate students supports a country's economic development. Concerns about 'brain drain' are likely a justification for why many developing countries are hesitant to encourage more of their own students to study in the US. However, if, as many have speculated but evidence has yet to show, more Chinese and Indian students trained in the US opt to return home after graduate school, confident that improved economic conditions will provide them with jobs in academia or research, perhaps 'brain drain' might be conceived of as a nonpermanent stage of development.

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