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## The New Empires of Knowledge in East Asia<sup>#</sup>

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Simon Marginson\*

### Abstract

The social role of higher education has changed. The global participation rate has doubled in 16 years, driven primarily by social rather than labour market demand, though with a bifurcation between elite and mass provision, and there has been a notable growth and spread of research capacity and World-Class universities beyond the English-speaking world and Western Europe. The most striking changes have been in East Asia, including China, Hong Kong SAR, Taiwan, Korea and Singapore. East Asia, including Japan, has become the third great zone of higher education, research and innovation, after North America and Europe. The accelerated development of higher education has been sustained by economic growth, middle class demand and Confucian educational cultivation in the home, and fostered by active states determined to catch-up with the West. An East-West gap in capacity and resources remains, but the number of World-Class universities in East Asia is growing rapidly. The cultural elements that distinguish East Asian higher education will be more important in future at the global level. Developments in higher education will be closely affected by synergies between Eastern and Western models of the university and of university/state/society relations.

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<sup>#</sup> Tin Ka Ping Education Fund Distinguished Lecture, Faculty of Education, University of Hong Kong, 25 June 2014.

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## Introduction

Higher education is undergoing an extraordinary transformation at world level. Here I am not referring to MOOCs, though that is an important development. I am not talking about the growth of private education, or increases in student tuition. These are important trends in some countries, and as an international agency model for emerging systems, but privatization and user payments are not really uniform patterns, though some in the English-speaking countries pretend that they are. Nor am I talking about the adoption of business models and accountability systems, which are almost uniform patterns. I am talking about larger social changes in learning, credentialing and research.

In the last generation, worldwide participation in tertiary education has multiplied by nearly three times. The economic and political role of science has grown. There are indigenous research systems and World-Class Universities in many more countries. Global developments in higher education no longer automatically mean 'Americanisation', though US universities are still the strongest in the world. The map of knowledge power is becoming more plural. New Knowledge Empires are emerging in Latin America, the Middle East, Eastern Europe, and especially in Asia.

The changes have been most remarkable in East Asia. Here, the great transformation of higher education and research is part of, and contributes to, the global rise of the nations shaped in the traditions of the Warring States, the Qin, the Han and the Tang and Song dynasties, nations that have also responded so effectively to the challenges of modernization. By 'East Asia', I mean the Post-Confucian systems, the higher education systems located in nations and cities shaped by Chinese civilization, including (if we go back far enough) Korea and via Korea, Japan. For the most part, that means 'Northeast Asia', but Singapore is in the Post-Confucian group. I will use the shorthand 'East Asia'.

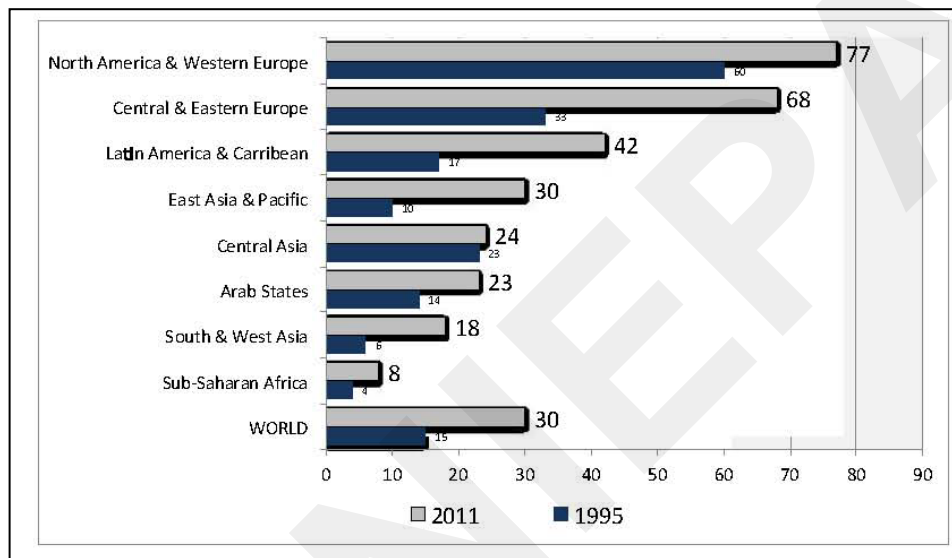
## The Expansion of Participation

To understand what has happened in East Asia we need to look first of all at the global context. There are two major tendencies across the world. The first is the growth of participation in tertiary education and, within that, in degree programs, in higher education. The UNESCO Institute for Statistics tells us that in the 16 years between 1995 and 2011, the worldwide Gross Tertiary Education Ratio doubled, from 15 to 30 per cent (UNESCO, 2014). Participation in formal post-school education is climbing in all but the poorest nations. Even in South Asia and Sub-Saharan Africa, the GTER doubled in this 16-year period, though participation remains very low in most of Africa. Figure 1 sets out the trends by region.

Consider the uniform pattern of change in the OECD nations and other European countries. The GTER is well over 50 per cent in North America, Western Europe, Eastern Europe and Russia, and East Asia outside China. It seems that once middle-income nations reach a tipping point, participation in upper secondary and tertiary education takes off, there is no natural ceiling, no limit to educability, and demand and supply grow together, and keep on growing towards 90 per cent inclusion and beyond. Korea, Taiwan and North America are at that level already. Consider also what near universal participation means. It means more than lifting the floor of possible productivity. For the first time, half of the world's nations are 'high participation societies'. In those societies, advanced scientific, technical or social literacy, and advanced labour market credentials, with the mobility they bring, are common

to the *majority* of people less than 35 years of age. We do not yet know what new potentials such societies are incubating. Majority higher education spreads agency freedom, public fluency and personal confidence across a much larger population. It widens the horizon of possibility. It also renders all states more transparent and accountable, as their populations have become smarter.

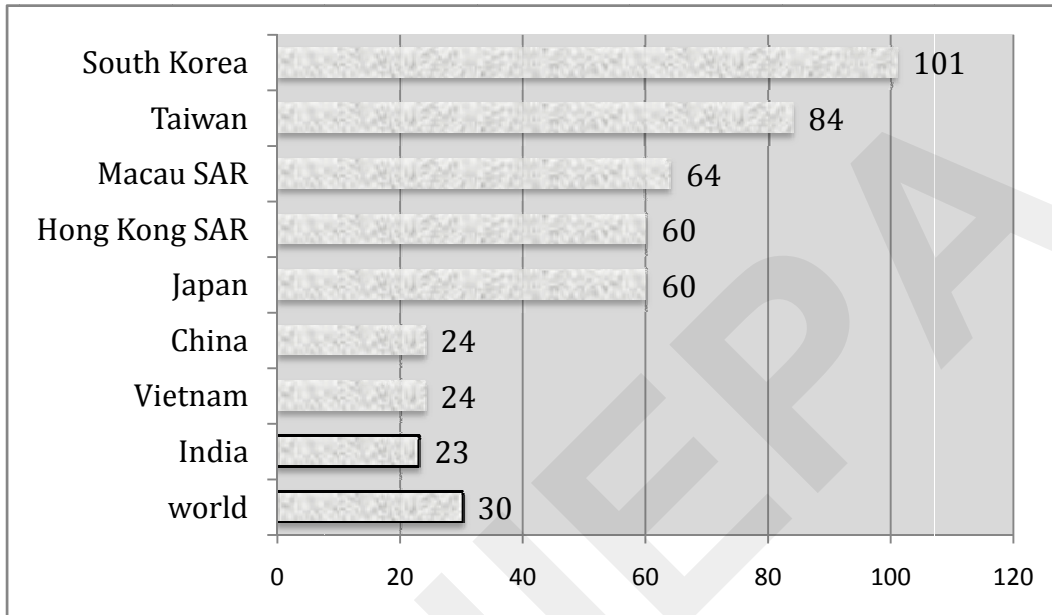
FIGURE 1  
Gross Tertiary Enrolment Ratio, World Regions, 1995 and 2011



Source: UNESCO, 2014

In East Asia, all systems except China and Vietnam have a GTER at or above 60 per cent. Singapore and Hong Kong have moved from the old British pattern of binary inclusion/exclusion, to the world model of universalizing participation, expanding sub-degree programs (which preserves a binary model) and/or pumping up the role of the fee-charging private sector, as in Japan and Korea and/or mass participation at sub-degree level. Korea and Taiwan have large vocational second sectors but, unlike the typical pattern in the English-speaking world, these are high quality and high esteem. As the example of Germany shows, strong manufacturing countries are best placed to sustain high calibre technical-vocational education, in which vocational-technical programs are seen as a positive alternative to academic programs, rather than a second best stream. Strong manufacturing countries can offer technical graduates a broad range of employment opportunities, so that the risks entailed in investing in a tailored program are reduced. With the decision to transform 600 higher education institutions into technical-vocational institutions, and creation of the technical (Postiglione, 2014), which started less than three weeks ago, China has chosen the German path.

FIGURE 2  
Gross Tertiary Enrolment Ratio, East Asia, 2011



Source: UNESCO, 2014; CIA Factbook, 2013. Data for Singapore not available. Red bars indicate Post-Confucian education systems. The numerator of the Gross Tertiary Enrolment Ratio (GTER) is total students, the denominator is the school leaver age cohort. In very high participation systems, mature age students from earlier school-leaver cohorts can push the GTER over 100 per cent.

Po Yang at Peking University says that in China, the national GTER reached 30 per cent in 2013, though there is great variation by region. In Beijing and Shanghai in 2010, the level was 60 per cent, and it was 45 per cent in Zhejiang and 40 per cent in Jiangsu, but it was only 15 per cent in Tibet, 18 per cent in Yunnan, 25 per cent in Sichuan and 28 per cent in Guangdong (Yang, 2014). The national target is 40 per cent by 2020.

### What drives the growth of participation?

What are the drivers of ever-increasing participation in advanced levels of education? Accelerated growth in tertiary education rests on economic growth and an expanding middle class, which bring the capacity to support tertiary education through private individual investment and shared public taxation. In the next generation, the Asian middle class will multiply by *five times and more*, primarily in China and India but also in Indonesia, Pakistan, Bangladesh and other large nations, exceeding three billion people in 2030 (Vasconcelos, 2012). But growth of the economy and the middle class are conditions of the expansion, not explanations.

Is it then states that drive participation? Governments act as if they determine the participation rate, but that is true only in the immediate sense (except in the early stages of



system development, when government is more essential). Once social demand for tertiary education is established, governments become followers. No government, whether in a contestable polity or a single party-state, can afford to ignore the aspirations of middle class families for educational opportunities. The real question is, what drives popular aspirations for education everywhere in the world?

Is it economic pull—is participation driven by growth in skilled labour in modernizing economies, facilitated by governments that want more investment in human capital? That's the conventional narrative. I do not think so. Human capital theory provides a plausible metaphor and a policy rationale rather than a social scientific explanation for educational growth. The idea that the structure of educational output can or should be matched to the structure of work and occupations makes little sense in the real world. This is not how labour markets work, and it is not how credentials are shaped, or are used by either graduates or employers. While economic demand fosters expansion of student places in fields short of labour at particular times (e.g. mining engineers in a mining boom in a mining country); and while in some professions there is a tight fit between training and occupation (e.g. the training of doctors in most countries), the overall relationship between higher education and demand for labour appears incoherent (Freeman, Marginson & Tytler, 2014). Consider:

- Across the world, *many* graduates do not work in fields in which they are trained, and many positions that require specific training are filled by graduates from fields other than that of the designated occupation. That is how labour markets work. At the point of job selection, employers take the most desired candidate. Specialist training is only one of the factors at play.
- In any case, much graduate labour—perhaps most graduate labour—is essentially generic. This includes not only most of business studies, the arts/humanities, the humanistic social sciences, the physical and life sciences, but also—in some countries—the phenomenon of many law or engineering graduates working outside the professional field. For example Korea (where a third of graduates are engineers), Russia, Germany, Finland in engineering, Australia in law.
- The trend in expansion of the relative weight of high-skill ('graduate') jobs is less clear-cut than the trend in the expansion of graduate numbers. Phenomena such as credentialism, signalling behaviour and graduates working in what were once seen as non-graduate jobs seem to be at least as prominent as the expansion of high-skill work. Over time, the growth of participation is associated with the movement of graduate labour across all industries and down the status ladder so that graduate labour becomes the norm.

The perennial debate about the education/economy relationship—do we have over-education or skill shortage?—can never be settled. Both claims are based on the false premise that the economy and tertiary education normally fit neatly into each other, and any departure from neat fit is a social and economic pathology. In the long run, neither generalization holds empirically. Surplus graduates migrate to erstwhile non-graduate jobs, so 'over-education' vanishes. Particular shortages of specialists can and do occur, given that most people seek generic credentials to maximize flexibility and opportunity, and education facilitates this, but genuine supply gaps tend to become filled over time.

However, while the evidence for economic drivers is patchy and inconsistent, the evidence for social drivers is strong and consistent. Families aspire for higher education both because it is seen to open up opportunities and provide better life prospects, and because it provides social distinction, and personal enrichment in a range of ways. Arguably, self-formation through education has become a core aspect of modern middle class life, like career planning, or investing in a family home, or fashioning a personal identity. And higher education provides favourable conditions and capabilities of these modern tropes, in all of Anglo-American, Western European, and Post-Confucian societies. At the same time, the social aspiration for tertiary education is also driven by fear- fear of social exclusion. When participation expands, the average returns to graduates decline relative to the workforce as a whole. However, the position of those without tertiary education also declines relative to the average. Crucially, the rate of return to degrees—the graduate premium—is maintained. When participation approaches majority levels, demand for tertiary education is still powered by the desire for relative social advantage, but it switches from an opportunity to an obligation. A degree becomes a 'defensive necessity'. Non-participation in post-school education is more than exclusion from the top part of the labour markets. Effectively, it is exclusion from full citizenship. Drop-out generates a growing cost for individuals and societies.

Take the case of China. Data for the 1980-2012 period suggests that there is no linear correlation between tertiary participation and national product per head, or any other economic indicator. Though the 1980s were a time of rapid economic growth after the opening up of the economy, participation in tertiary education was locked at 2-3 per cent. Participation in secondary education also stayed down, in fact it fell sharply early in the 1980s. Improved human capital was not essential for economic growth at that time; and nor did economic growth trigger early pressures for broader participation in tertiary education. Advanced skills are more important now, as the economy moves to higher value addition in manufacturing, than they were then. In the 1990s, the GTER trended upwards; and, from 1999 onwards, there was accelerated take-off. Participation increased much faster than GDP per capita even though GDP was growing rapidly by world standards. The exact timing of this turning point was determined by the state, which needed to foster and fulfill the aspirations of the middle class as an instrument of political order. China's government decided to grow tertiary education and to invest in infrastructure of both elite and mass HEIs. At the same time, there was enough pent up social demand from the growing middle classes, after two decades of economic growth, to fully utilise the new opportunities—and once the expansionary genie was released, once social demand was freed up, the GTER moved ahead of target. And in the last decade, the growth of participation has been sustained, despite the recurring cycle of temporary graduate surplus, followed by adjusted expectations and behaviours.

## The Spread of Capacity in Science

The second major trend at global level is the spread of scientific capacity. All nations now want capability in science and technology, though not all can yet pay for it. Nations need an indigenous science infrastructure just as they need clean water, stable governance, and a globally viable financial sector. In some, but not all nations, the drive for science is powered by knowledge-intensive manufacturing, for example in Korea, China and Finland. In all

nations, it is powered by the spread of technology across the economy, by the strategic importance of industrial innovation, and by state building. Nations now need to be effective participants in the one-world science system and to do this they must train their own research personnel. The alternative is a position of continuing scientific and technological dependence.

The growth in research science has been almost as spectacular as the growth in tertiary participation. National science is yet to spread as widely as mass tertiary education. But national science has moved from being something that only highly developed countries in North America, Europe/UK and Japan could afford, to part of the normal business of established and emerging states. In 1997, there were 40 nations that published over 1000 research papers in the recognized science journals. By 2011, there were 51 such nations (NSF, 2014). Table 1 lists them.

TABLE 1  
Nations publishing more than one thousand science papers in 2011

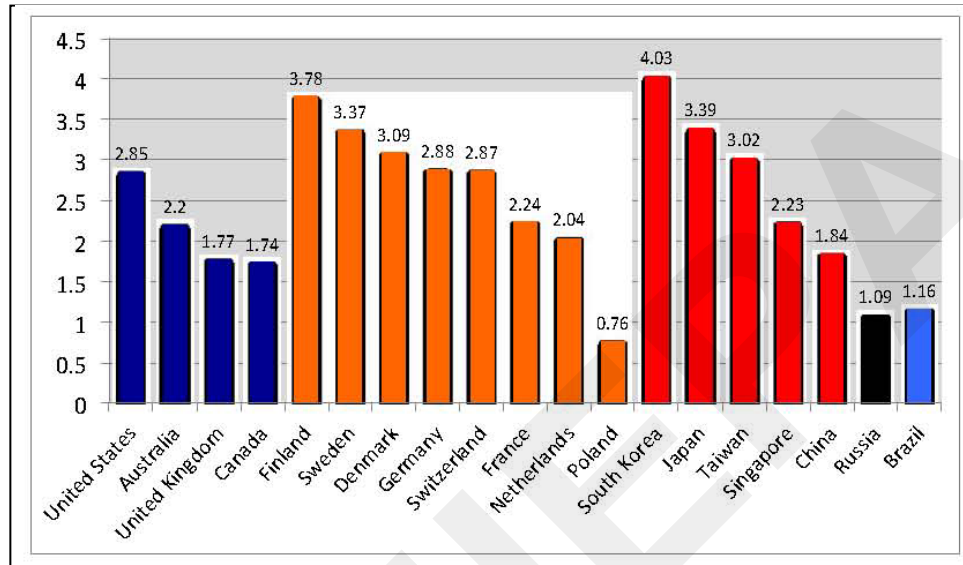
<i>Anglo-sphere</i>	<i>European Union</i>	<i>Non-EU Europe</i>	<i>Asia</i>	<i>Latin America</i>	<i>Middle East</i>
USA 212,394	Germany 46,259	Russia 14,151	China 89,894	Brazil 13,148	Iran 8176*
UK 45,884	France 31,686	Switzerl'd 10,019	Japan 47,106	Mexico 4173	Israel 6096
Canada 29,114	Italy 26,503	Turkey 8328	South Korea 25,593	Argentina 3863	Saudi Arab. 1491*
Australia 20,603	Spain 22,910	Norway 4777	India 22,481	Chile 1979*	
New Zealand 3472	Netherlands 15,508	Ukraine 1727	Taiwan 14,809		
	Sweden 9473	Serbia 1269*	Singapore 4543		
	Poland 7564	Croatia 1289*	Thailand 2304*		
	Belgium 7484		Malaysia 2092*		
	Denmark 6071		Pakistan 1268*		
	Austria 5103				AFRICA
	Finland 4878				
	Portugal 4621*				
	Greece 4534				S'th Africa 3125
	Czech Rep. 4127				Egypt 2515
	Ireland 3186				Tunisia 1016*
	Hungary 2289				
	Romania 1626*				
	Slovenia 1239*				
	Slovakia 1099				

\* = countries that have entered the one thousand papers group since 1997

Source: Adapted from NSF, 2014

The new science nations include Croatia, Serbia, Slovenia, Chile, Malaysia, Thailand, Iran and Tunisia. The output of published science grew faster in Iran than in any other country, increasing at an amazing 25.2 per annum between 1995 and 2011 (NSF, 2014).

FIGURE 3  
Investment in Public and Private R&D as a Proportion (%) of GDP,  
Selected Countries, 2011 or Nearest Year

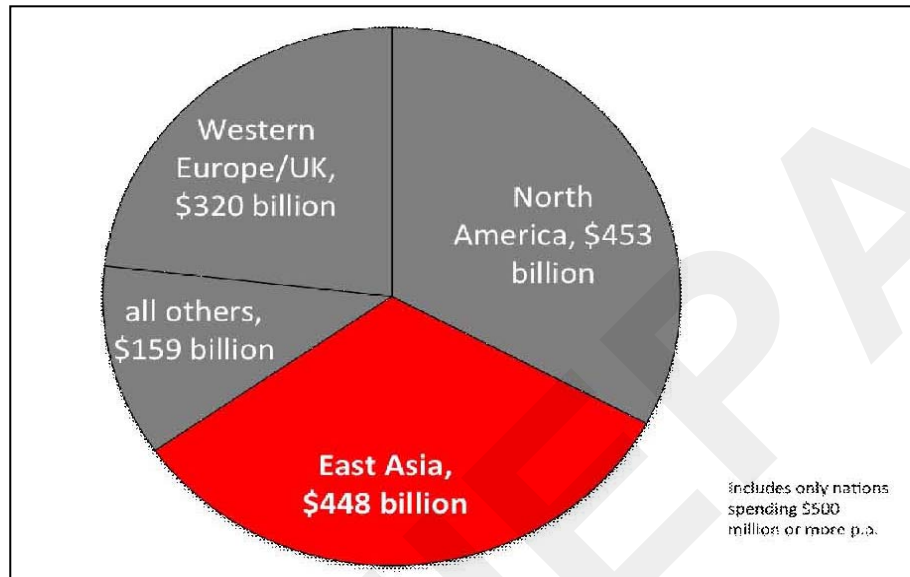


Source: OECD, 2013

But the standout region is East Asia. Japanese R&D emerged as a global player between the 1970s and 1990s, and it continues to underpin the manufacturing sector, though university research funding is now marking time, stymied by the weight of national debt in fiscal policy. In China, Korea, Singapore and Taiwan, the research take-off occurred a generation or more after Japan. Korea's investment in R&D in 2011 was 4.03 per cent of GDP, second highest in the world after Israel, well ahead of Finland, the leader in Europe. Japan was at 3.39 per cent. China's investment is rising 0.1 per cent of GDP a year and reached 1.84 per cent in 2011, above the UK (OECD, 2013).

In 2011, the Post-Confucian countries of East Asia (China, Japan, Korea, Taiwan), plus Singapore, invested \$448 billion in R&D, a third of the global total, just below the \$453 billion spent in the United States and Canada. Almost half of this investment was in China, which increased R&D funding by more than 18 per cent a year in real terms, year by year, for the previous 10 years. China allocated \$208 billion in 2011, compared to \$429 billion in the United States. Japan had the world's third highest investment. Korea was fifth. East Asia has become the third great region for research and industrial innovation, alongside North America and Western Europe/UK. East Asia channels a higher proportion of national R&D investment into business and industry than does North America and Western Europe. In fact, not enough goes to the universities.

FIGURE 4  
Principal Regions of World: R&D activity, 2011



Source: NSF, 2014

Even so, published science is increasing almost as quickly as R&D funding. Between 1995 and 2011, the number of journal articles by Chinese people rose by 16.5 per cent a year, and reached almost half the US level. Published papers grew 13.6 per cent a year in Korea, 9.6 per cent in Singapore, 7.9 per cent in Taiwan, remarkable rates of sustained increase. It is often argued that while the quantity of published papers is spectacular, East Asia does not have quality. That is no longer a sustainable argument. Citation quality is now improving rapidly, at least in the Physical Sciences and Engineering, the disciplines that have been the main priorities for national investment in China and in other systems throughout the region. Take Chemistry, for example. US National Science Foundation data show that in the year 2000, China published just 0.6 per cent of the world's papers that were ranked in the top one per cent of the field by citation rate. Twelve years later, in 2012, China published 16.3 per cent of leading papers, half as many as the US. And its total number of published papers in Chemistry exceeded the US (NSF, 2014, See Table 2). There are similar patterns in Engineering, Physics, Computing—where China now publishes more top one per cent papers than the US—and, to a lesser extent, in Mathematics (NSF, 2014). Biological Sciences and Medicine are much weaker, though the number of Chinese Life Science papers in *Nature* (2014) has now begun to climb.

TABLE 2  
**Total published journal papers and high citation papers in Chemistry,  
 USA, China, Japan and EU, 2000 & 2012**

Share of all papers in Chemistry	USA	China	Japan	EU
2000	20.3%	3.7%	11.2%	38.7%
2012	16.2%	16.9%	7.9%	29.6%

Share of top 1% papers in Chemistry by citation rate	USA	China	Japan	EU
2000	48.6%	0.6%	9.3%	30.2%
2012	33.5%	16.3%	5.6%	28.4%

Source: NSF, 2014

### World-class Universities

There is still a performance gap between East Asia and the West, especially the English-speaking countries—that is, if performance is measured on the basis of Anglo-American science, the template used for world rankings (a comparison that, of course, favours the English-speaking world). This gap is most apparent in relation to the measured number and performance of ‘World-Class’ universities. Shanghai ARWU popularized the term and I look first at its data. ARWU shows that the number of top 500 research universities from mainland China and Taiwan has grown quickly. Between 2005 and 2013, the number of top 500 Universities in China shot up from eight to 28. In Taiwan, five universities became nine (ARWU, 2014). However, global targets and measured progress are set in terms of the top 200 or top 100, not the top 500.

In the top 200, the English-speaking nations are dominant. There are just five Chinese universities in the ARWU top 200, all in the second 100, and National University of Singapore, National Taiwan U and Seoul National are also confined to the second 100 (ARWU, 2014). Regional stars like HKUST and Postech are too small to figure in upper reaches of the ARWU, though the size factor helps the large Japanese universities from the Imperial group. Perhaps the main problem facing Asian universities in the Jiao Tong, though, is the paucity of Nobel Prizes. Nobel prizes are open to politicking, which introduces unnecessary noise into the comparison. So does the use of arbitrary weightings in the multi-indicator league tables. I think that the most useful data set is the ranking by Leiden University in The Netherlands, which offers a number of different single indicator rankings. Arguably, the Leiden research ranking is the most accurate measure of the global position of science universities in East Asia. Using Leiden data, I will now discuss some of the leading universities in each system.

#### *Singapore and Hong Kong*

Singapore’s two main research universities have levels of performance akin to a top Swiss or British institution. NUS is in the world top 30 on the basis of the volume of published science. The last column in Table 3 shows that Singapore produces almost two-thirds as many high citation papers as Cambridge, and is 30<sup>th</sup> in the world on that measure. This last column is a useful measure of the firepower of a research university—it captures the ‘quantity of quality’. On the pure quality measure, the proportion of papers in the top 10

per cent in their field, Asian universities do less well. The United States functions as a very large national research system that tends to cite itself and it dominates citation quality averages. NUS is only 112<sup>th</sup> in the world in the proportion of papers in the top 10 per cent in the field. Even so, NUS is second Research University in Asia on this measure. Nanyang is now number one. Bravo Singapore (Leiden University, 2014).

TABLE 3  
Published science and citation rates, Singapore and Hong Kong universities,  
2009-2012

<i>World rank on paper volume</i>	<i>University</i>	<i>Number of published papers 2009-2012</i>	<i>World rank on papers in top 10% of field as proportion of all papers</i>	<i>Papers in the top 10% of field on citations as proportion of all papers</i>	<i>Number of papers in top 10% of field on the basis of citations</i>
6	Stanford USA	13,399	5	22.3	2993
13	Cambridge UK	11,778	19	18.4	2163
28	National U SINGAPORE	10,387	112	13.1	1361
63	Nanyang UT SINGAPORE	7331	98	13.5	986
105	U Hong Kong HK SAR	5930	220	11.3	669
132	Chinese U HK HK SAR	5172	261	10.6	548
190	HK Polytechnic HK SAR	4250	308	10.0	426
248	City U HK HK SAR	3490	187	11.6	406
311	Hong Kong UST HK SAR	2826	154	12.2	343
691	HK Baptist U HK SAR	1142	365	9.5	108

Source: Leiden University, 2014

Stanford and Cambridge are included for comparison purposes. The Table lists six Hong Kong universities. The Baptist University is weaker than the others, but its average citation rate compares well with other small Asian universities. The SAR universities face less difficulty with English language publishing, compared to mainlanders. Like the Singapore universities, they have fine citation rates in the Asian context, especially Hong Kong University of Science and Technology, and the University of Hong Kong. The City University is also in the world top 200 on citation quality (Leiden University, 2014). In this well managed system, balanced development has allowed a number of institutions to flourish, though none are in the world top 100 on size of science output, and all are constrained by the low allocation to R&D in Hong Kong. Hong Kong's research funding, as a share of GDP, is about 40 per cent the level of the mainland. Perhaps that is the only factor holding Hong Kong back from Singapore levels of performance. Certainly, there is enough talent in Hong Kong, an attractive place for scholars to live and work.

### *China*

China has two broad types of research university—large institutions with wide spread across the fields of research and high paper volumes, but weak average citation rates, such as Shanghai Jiao Tong, and smaller universities that specialize in high quality S&T research and have better citation rates, like Nankai and the Academy university, the University of

Science and Technology. Tsinghua, and, to a lesser extent, Peking and Fudan universities, combine large size with citation performance above the norm. The largest Chinese university in volume terms, Zhejiang, is the world's ninth largest producer of published science.

There are nine universities in China which have more than 10 per cent of their published papers in the top tenth of the papers in the field, on the basis of citation rate.: Fuzhou (12.1 per cent of papers are in the high citation category), Nankai, Wuhan, Hunan, the University of Science and Technology, Tsinghua (10.6 per cent), East China UST, Xiamen and South China UT (Leiden University, 2014). Given the language barrier, these institutions must be counted as strong performers. In the next generation, some of them could really take off.

#### *Taiwan, Korea and Japan*

National Taiwan University is large, 41<sup>st</sup> in the world on paper volume, exceptionally strong in engineering, especially electronics, and produces many high citation papers. Its overall citation rate is disappointing, as is the case for other Taiwan universities.

In Korea, Seoul National is larger than National Taiwan University and the National University of Singapore. Seoul National is 11<sup>th</sup> in the world on paper volume, though 520<sup>th</sup> on citation rate. The pattern in Taiwan is replicated in Korea—the proportion of papers in the high citation category, the top 10 per cent in the field, is low—except in the case of the specialist research universities, Korea Advanced Institute of Science and Technology (KAIST), Pohang University of Science and Technology (generally called Postech), and Ewha Women's University (Leiden University, 2014).

Japan has six universities in the world top 100 on paper volume, with Tokyo a colossal fourth in the world on that measure. But Tokyo is only 342<sup>nd</sup> on the proportion of papers in the top 10 per cent by citation rate. Despite low average citation rates, in part because in much of the university sector, Japanese enjoys more prestige as an academic language than English, the sheer size of several of the Imperial group universities ensures a high volume of top 10 per cent papers. On this measure, Tokyo produces slightly more top-tier world science as the National University of Singapore, and Kyoto University's output is almost the same as Nanyang in Singapore (Leiden University, 2014).

#### *Leading universities in high citation papers*

Table 4 provides a summary ranking of Asian universities based on the number of high citation papers produced, the 'quantity of quality' (Leiden University, 2014). Half of the top universities are from mainland China. This single indicator provides a more accurate summary of the comparative research strength of universities in the region than the ARWU list. According to this measure, there are 28 Asian universities in the world top 200, compared to 19 in the Shanghai ranking. That is, however, only 14 per cent of the world top 200 list, but that proportion will increase sharply in future years.

Nothing is more certain. There are lags between investment in capacity, publication, and citation recognition. The output growth and improvement in citation quality of the last decade largely reflects late 1990s-early 2000s investments, quickened by incentives to publish in English. Recent and current investments are still in the pipeline. It is an awesome prospect, particularly in China and Korea. There is still a long way to go, the top American universities are in a different league, and the US will continue to house the largest number of top 50 universities for the foreseeable future, but the goal of catching up with the West is



now in sight. It is more realistic than it was. And it is clear that in future, a large proportion of global knowledge will be generated in East Asia.

TABLE 4  
Asian Universities in the World Top 200 on the basis of the Number of High Citation  
(Top 10% in Field) Papers Produced, 2009-2012

<i>World Rank</i>	<i>University</i>	<i>System</i>	<i>Top 10% Papers 2009-12</i>	<i>World Rank</i>	<i>University</i>	<i>System</i>	<i>Top 10% Papers 2009-12</i>
29	Tokyo	JAPAN	1389	120	Tohoku	JAPAN	606
30	NU Singapore	SINGAP.	1361	123	Nanjing	CHINA	595
49	Tsinghua	CHINA	1025	130	Sun Yat-sen	CHINA	563
53	Zhejiang	CHINA	1018	135	Chinese U HK	HK SAR	548
55	Nanyang UT	SINGAP.	986	145	Sichuan	CHINA	529
57	Kyoto	JAPAN	982	152	Harbin IT	CHINA	522
67	Peking	CHINA	906	157	Yonsei	KOREA	517
70	Seoul NU	KOREA	901	169	Korea AI S&T	KOREA	493
72	Shanghai JT U	CHINA	887	180	Jilin	CHINA	466
87	Fudan	CHINA	784	182	Huazhong S&T	CHINA	463
95	Osaka	JAPAN	724	183	Shandong	CHINA	457
100	N Taiwan U	TAIWAN	695	185	Nankai	CHINA	456
103	U Hong Kong	HK SAR	669	199	Dalian UT	CHINA	428
117	U S&T China	CHINA	621	200	Nagoya	JAPAN	427

Source: Leiden University, 2014

### The state and the family

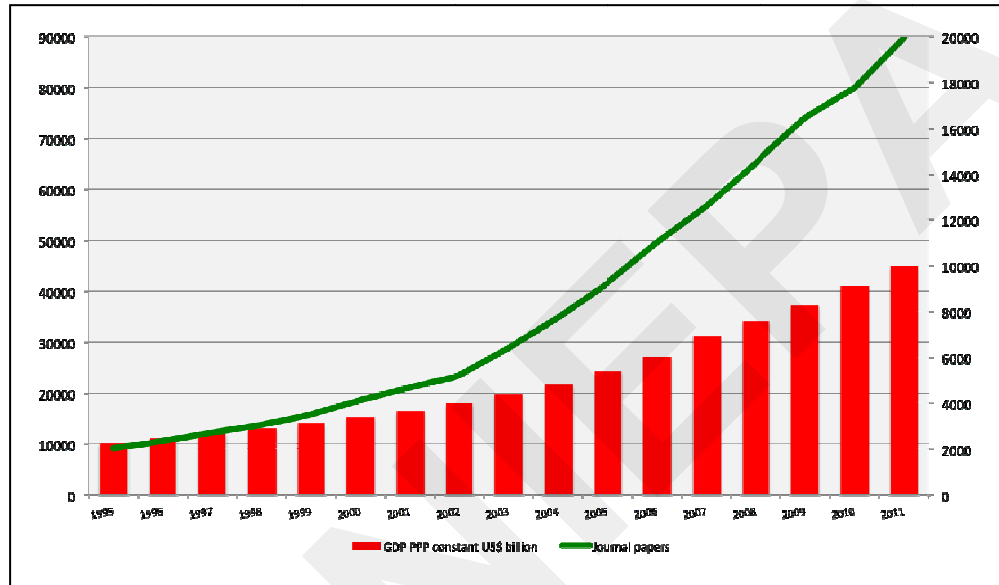
How have the East Asian systems achieved such progress in a short time? Though economic growth and the growing middle class are crucial, these are not sufficient conditions. From time to time, other nations have shared those conditions without launching educational take-off. We can identify two indigenous elements: the capabilities of the distinctive East Asian state, and educational cultivation and self-formation in the Confucian educational family (Zhao & Biesta, 2011; Marginson, 2011; Marginson, 2014).

The development of higher education and science is powered by a fierce drive for modernization, fostered by comprehensive states in the distinctive Sinic tradition, the Qin and Han tradition, which set targets, invest real resources, demand international benchmarking (Wang, et al., 2011), particularly with American universities, and monitor improvement. In this region, the quality of all state machines is high, except in Vietnam, where the take-off has not occurred. Unlike the state in the United States, the East Asian state attracts the highest quality graduates. It enjoys an unmatched social prestige and it has a considerable capacity to mobilise national effort for the achievement of common goals (though perhaps this capacity is now faltering in Japan).

Consider also the way in which China moved decisively to create a second vocational-technical sector in higher education. And consider the take-off of science production in China, which moved ahead of the rate of economic growth after the late 1990s (Figure 5). The Korean state has, likewise, demonstrated a remarkable capacity to secure managed

improvements, for example in the school system. Although there are many differences between the individual East Asian countries, the comprehensive Sinic state operates in a similar manner in education policy, whether in contestable polities or in single party-states.

FIGURE 5  
Output of published Science compared to GDP, China, 1995-2011



Source: World Bank, 2014; NSF, 2014

The family also contributes. As the OECD PISA results show, Confucian educational cultivation and shadow schooling in the home generate a consistent flow of high quality students and junior faculty. The seven top systems in mathematics in 2012 PISA were all post-Confucian systems (OECD, 2014) The East Asian systems draw on a long tradition and a well of social commitment to learning that is deeper and wider than anywhere else, except perhaps Finland. Though East Asian societies, unlike Nordic societies, are not particularly egalitarian in terms of gini coefficients, East Asian higher education systems are highly stratified, and the social elite dominates in the leading institutions, there is strong PISA performance in the bottom group of students as well as in the top group. In East Asia, there is a relatively modest trade-off between educational excellence and social equity. It is something that Anglo-American societies have yet to achieve.

### East and West

The rising East Asian research universities are a hybrid of Anglo-American science, together with indigenous educational culture, and Sinic state-powered modernization. Will a distinctively East Asian kind of higher education emerge, grounded more in Confucian self-formation and the distinctively Sinic approach to academic freedom, with its emphasis on the social and scholarly responsibilities of professors (Hayhoe, et al., 2011)? Perhaps. As

East Asian nations become more confident at home and globally active abroad, their distinctive cultural roots are likely to become more important (Jacques, 2012).

I cannot foresee what might develop, but what is clear is that at global level, the two most influential influences in the future of higher education will be the two zones where higher education will be strongest, the English-speaking countries (especially the United States) and China, Korea and other parts of East Asia. Western European countries will also make distinctive contributions. For example, the Nordic countries practice mass educational provision at a higher level of quality than do other nations, the Dutch system is highly inclusive in its social mix, and Germany is on the brink of a significant uplift in its research universities. However, the Nordic model cannot be readily replicated in the absence of its high tax/high spend underlay, and there is an increasing degree of convergence between English-speaking countries and central Europe.

Arguably, the central conversation about the future of higher education is the conversation between the changing, modernizing Sinic tradition, the Post-Confucian world, and changing, evolving English-speaking tradition. This is emblematic of the larger encounter that will increasingly take place, between the different Anglo and Sinic traditions in governance, state, and civil society. Both kinds of societies are grappling with similar questions but in different ways. How to liberalise the civic and political space to make room for popular agency in politics—the kind of strong agency already expressed in economic and cultural life—without undermining the social order?

China grapples with the problem of liberalizing the party-state from within and creating and maintaining a stable organic civil society, while accommodating dissent on an ongoing basis. Civil society and free contestation of ideas had their moments in China but were never a permanent part of the polity. It is difficult to take them in. The US grapples with a political system in which money controls politics, ordinary participation has become meaningless; and contestability, as a legitimating device, breaks down when the party system provides no meaningful policy alternatives on key issues that affect the people. And in American higher education, long part of the bedrock of American society, it is now all about private benefits, and the idea of public good in higher education has been hollowed out.

This also points to larger weakness in limited liberal states in this period. How can the state in UK and USA mobilise collective national effort to address emerging problems like energy and climate change? English-speaking polities are unable to deal with this. They are at the beck and call of their major corporations, like the energy companies in oil and coal. They have elevated the legal right to trade above the public good. The East Asian state has the better tool box to tackle energy policy, as illustrated by China's shift from coal and oil to gas, nuclear and renewables. In other words, both traditions, both political cultures, have distinctive strengths and weaknesses. If there is to be a stable form of global governance, it will probably develop as a hybrid of these traditions. And if there is to be a more integrated and equal global knowledge system, with greater respect for diversity, in place of the homogenizing uni-cultural system that has developed so far, it will probably have to be an East-West hybrid. And to achieve such a hybrid, all the players will need to change.

The East Asian societies have learned selectively from Western and especially English-speaking higher education. I believe that in future the West will find that it has much to learn from East Asia. In higher education, too, both traditions have their strengths and weaknesses. And there are both similarities and differences between them.

### *Similarities*

In both regions, higher education and its graduates face endemic and unresolvable problems of graduate unemployment, and all societies will continue to sustain the endemic unresolved debate between liberal and generic higher education versus vocational and specific higher education. The answer, of course, is 'both' but surprisingly few students pursue programs that contain generic *and* specific diplomas.

In both world regions, elite universities are travelling well but are in continuing danger of losing touch with their broad social mission. In both regions, providing mass education of adequate quality is becoming increasingly problematic, amid the plethora of under-funded public institutions, small private institutions, for-profits, marketing-created credentials, cross-border forays, and online and mixed mode variants on offer. Some forms of participation are so attenuated as to scarcely merit the title 'education' at all. There is little or no learning and the credentials have negligible value.

In both world regions, there is a widening gap between elite and mass higher education within universal systems. This gap plays into the growing inequalities of income and wealth in most nations. This is a key weakness in contemporary societies and may fragment them decisively. And we must acknowledge that higher education is complicit in this growing inequality, even though it is not the main driver. In many countries, the main indicator of inequality in education has shifted from participation per se—whether the student enrolls or not—to the question of 'participation in what?' Which institution? Which field of study? Though as we have seen, non-participation has become a greater social disadvantage than it was before.

Both dimensions of equality, inclusion versus exclusion, and equal value versus stratification, need to be part of the policy debate about equity—in both East and West.

### *Differences*

There are also important differences between higher education East and West and this is where we have much to learn from each other, if we can do so on the basis of equality of respect. These differences go to the nature of the individual in education, to the conduct of society and state in education, and to global activity and relationships.

First, at the core of higher education in each tradition is a distinct process of self-formation. As you know, the English-speaking countries, immersed in the John Locke/Adam Smith idea of the tradition of the limited liberal state, emphasise negative freedom—freedom of the individual from coercion by the state—and tend to play down the social situatedness of the individual. Thus, Giddens (1991) argues that the modern individual has no given identity but must continually remake identity through reflexive activity. I think this position is widely felt. People use higher education to change themselves and their conditions of life. They want to become something new, through enrolment and perhaps through study, even though they do not always know what this will be. Sometimes they just want to open the possibilities. This approach to higher education parallels other cultural notions of people as self-determining individuals, including the person as fashioning their own career; the person as decision-making consumer; the person as mobile individual who can live in many places; fashion, body management and visual image; the emphasis on personal cultural identity, 'who I am'; social networking and its positioning of students as individual self-celebrities for a day, constantly changing their 'public image'.

Confucian practices of self-formation do it differently to Anglo-America and Western Europe. They have a stronger moral and ethical dimension, and place greater priority on key social relations. This provides a balance to the high individualism of the Anglo-American countries, though at one extreme, it can also deaden individual agency. The two approaches have different implications for values in the curriculum, modes of pedagogy, and the public good role of the sector.

Second, the differences in the relationship between higher education and the state have profound implications. Perhaps Hong Kong will be the testing ground for the potential to blend the two approaches. In East Asia, the state has a comprehensive responsibility for social order and prosperity and so it intervenes at will, not all the time but selectively in response to short-term problems and long-term needs. Thus, once higher education and science became government priorities, states acted decisively and in a sustained manner. The capacity for long-term vision is particularly valuable and contrasts with state administration in the English-speaking world. The downside, of course, is that the East Asian state cannot seem to stop itself from interfering in important matters like research. It is difficult for East Asian states to devolve decisions to scientific communities on a consistent basis, difficult to let go, and this can stymie science. In the English-speaking world, the central concern is always the boundary tension between state and market, state and civil society, government and university. Issues of autonomy are always central. Thus, while there is frequent interference with university autonomy and academic freedom, and they are always being negotiated, the two qualities start from a stronger position than in East Asia. The downsides are that the political costs of an active policy are so great that governments tend to withdraw from policies designed to lift the long run capacity of the sector; and government control is exercised indirectly, through rules, funding formulae and the settings for competition, so the effects of policy are removed from scrutiny.

Third and finally, East Asian and English-speaking universities often pursue different kinds of global agendas. The Anglo-American institutions move more readily into global positioning and activity in all areas. This is not so much deeply cultural, as the outcome of their imperial domination in the last 300 years—they have the resources and the confidence for global forays—coupled with the related fact that English is the one global language of common use. Thus, the English-speaking countries are far and away the leading attractors of international students. Mobility patterns are becoming more plural. In terms of inward student movement, China is now the third largest provider of international education after the US and the UK. Nevertheless, as my colleague at Beida, Jiang Kai, points out, only about a third of the inward movement into China takes the form of degree enrolments and as yet less than 10 per cent of international students in China study at graduate level. Students, who go to the English speaking countries, stay longer and many migrate. These patterns will change but it is not yet clear whether Chinese national language will become a global language of common use.

Nevertheless, there are signs of a more active approach, as in the Confucius Institutes, the founding of a Shanghai Jiao Tong campus offshore in Singapore, and the longer pattern of foreign aid for education with China in Africa and Japan and Korea in Southeast Asia. The advent of the ARWU ranking was also important—the first distinctively Chinese structuring of global systems in higher education and science.

### *Going global*

The higher education environment will change when China, Korea and Taiwan move from an international strategy to a global strategy, contributing distinctive cultural contents to the world conversation, and becoming just as engaged offshore with foreign partners as through onshore partnerships at home. Japan has found it difficult to move towards a global approach in education, despite its impressive achievements in research, but Singapore has shown that it can be done. East Asia now has the demography, the dynamism, and increasingly, the wealth and the scientific infrastructure, to make a seminal global contribution. This is its destiny. In Hong Kong, it is your destiny.

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## Differential Literacy Attainment of the Blocks of Uttar Dinajpur District

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Sanchari Roy Mukherjee#

### Abstract

The paper provides a detailed analysis of the educational drawbacks of Uttar Dinajpur district. Primarily, it tries to investigate the nature and causes of educational deprivation in this particular district. The study has been undertaken by taking census villages as unit of observation. The district comprises 09 blocks and as such 20 regression equation (MLR & FLR) has been estimated. With this, the study finds Economic Dependency, Female Work Participation, Agricultural Dependency, Social Backwardness and Fertility Change as statistically significant factors for explaining the MLR and FLR at district and block level. Interestingly, it is found that the socio-economic correlates, which are important and significant at district level, are not equally important and significant at block level. This implies that the policy measures framed at district level may not always be suitable at block level.

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## Introduction

Human capital refers to a range of demographic indicators of which the education and health levels of people are the two main fabricants as they affect economic productivity in an effective way (World Bank, 2008). Accordingly, the paradigm of development has now been extended and, in addition to income, health status and educational achievement, have been incorporated to measure the level of development. Beyond being a pillar of HDI, education is such a milieu that fabricates every sphere of social life and, of course, the overall development process. It operates both as an instrument and as output of the development process. Poverty alienation, symmetric income distribution, improvement in health and nutritional status are all positively associated with educational status and it is negatively related with fertility rate, population growth, rate of social crime, infant mortality rate etc.. In a nutshell, education can affect the social, political and economic development and overall quality of life and this is well recognized in the literature of education.

Literacy rate (LR), as provided by the Indian census, covers the necessary information of each of the household and as such, it may be considered as one of the important educational indicators that also appear to be a reliable data for educational development. It is now widely being recognised that "literacy skills are fundamental to informed decision-making, personal empowerment, active and passive participation in local and global social community" (Stromquist, 2005, p. 12). A recent study (David et al. 2006) suggests that increasing levels of education lead to different thinking and decision-making patterns of an individual. Accordingly, policies that affect Literacy Attainment could have a large effect on different demographic variables. Considering such a coverage and importance of Literacy rate, the present paper focuses on literacy development of the district of Uttar Dinajpur, the least literate district (Census 2001) in West Bengal. West Bengal ranks at 32nd and 33rd as per the Educational Development Index (EDI) constructed by the NUEPA for the year 2005-06 and 2006-07 respectively (NUEPA 2007, 2008). The district wise EDI also brings forth a painful picture for the state. All the 19 districts of West Bengal have been ranked as lowly performed district. Malda, which is at the bottom-most position among the districts in this respect, is closely followed by Murshidabad and Uttar Dinajpur respectively. The Literacy Development Index (LDI) presented earlier also shows that none of the districts in West Bengal could maintain the high LDI category. Nine out of 17 districts remain as lowly performed districts while the others show average performance as per the selected literacy characters of 2001. It focuses on the district of Uttar Dinajpur, the least literate district in the state and ranked at 518 out of 593 districts in India in terms of literacy rate. At the same time, it is placed at rank 505 out of 569 districts for which EDI has been calculated. Moreover, the Government of India has identified some districts that need special focus on the basis of the number of out-of-school children and districts with a higher concentration of Scheduled Castes and Scheduled Tribes population. Uttar Dinajpur has been found as one such district that has high concentration of Scheduled Castes and having more than 50000 out-of-school children in the year 2005-06 (<http://www.educationforallindia.com/special-focus-districts.htm>).

Apart from this, the report of the Sachar Committee (GOI, 2006) has identified top 100 districts (by size of Muslim Population, 2001 Census) amongst which Uttar Dinajpur occupied 16th position as per its size of Muslim population (absolute). Short-listing the top 20 districts among which 09 districts are present in West Bengal, the socio-economic

indicators of the Muslim population like, dependency on agriculture (80 per cent of the total worker), Female literacy rate (25.5 per cent), size of the urban population (2.1 per cent) etc., are mostly staggering in this particular district.

In view of the socio-economic background of the Uttar Dinajpur district and the depressing state of Literacy Attainment, the paper provides a detailed analysis of the educational drawbacks of this district. It also attempts to identify the socio-economic and enabling attributes related to literacy development in the district.

## Literature Review

Literature on economics of education has established that there is a positive association between educational backwardness and level of poverty. The explanation offered is that the opportunity cost of sending the children to school, instead of using them as household help or wage earner, is not an economically feasible option (Bhatty, 1998). This positive association is emerged in different studies (Chakraborty, 2006; Duraisamy, 2004; Dholakia 2003; Reddy and Rao, 2003; Nambissan and Sedwal, 2002; Devi, 2001; Krishanji 2001, etc).

An interesting result has been found in Reddy and Rao's (2003) household level survey, while analyzing the reasons for drop-out/non-enrolment in Tamil Nadu. They found that poverty appears to have greater influence in the backward areas; economic activities seem to play a greater role in the developed regions. Other studies also suggest that household income is a significant determinant of enrolment where higher levels of income is associated with higher demand for schooling (Lave et al, 1981; Psacharpoulos et al, 1989; King and Lillard, 1987; Knodel and Wongsith, 1990; Tansel, 1997).

Studies from other countries also suggest more or less similar results. Most studies analyzing the determinants of enrolment (especially girls' enrolment) have found the association between household income and enrolment in school to be positive and statistically significant, whether income is measured directly using a household consumption module or indirectly through some household asset index (Hazarika, 2001; Sathar & Lloyd, 1994; World Bank, 2002). Both, the size and significance of income effects are typically larger for girls than boys when comparing results for boys and girls.

While studying the determinants of schooling for boys and girls in Nigeria under a policy of free primary education, it has been found (Lincove, 2009) that controlling for costs, household wealth bears a positive relation with primary school attendance. Interestingly, it has greater income elasticity for girls than boys. Girls' attendance also depends on opportunity costs generated by providing child care for younger siblings and living on a family farm.

In analyzing the causal relationship between parental employment and children's Literacy Attainment (Hannah Schildberg-Hoerisch, 2011), there is little support for the view that parental employment affects children's Literacy Attainment. Controlling for household income, it is ruled out that having a mother who works one hour more per week lowers the probability of high secondary track attendance by more than 0.1 per cent.

An estimate (Jane Arnold Lincove, 2012) in connection with the obstacles to schooling under a free primary education policy shows that Enrolment for boys and girls is influenced by price. It also establishes that price and wealth elasticities of schooling vary by wealth level. It suggests conditional cash transfer for the purpose.

A multivariate analysis of Iraqi school enrolment shows that boys and rural children are far more likely to be enrolled. Household opinions suggest that the main reason for non-enrolment is lack of children's or parental interest. A labor force analysis suggests that lack of interest may be explained by weak employment prospects for educated youth (M. Najeeb Shafiq, 2012).

A study in Vietnam (Phuong L. Nguyen, 2006), using logistic regression and ordered logistic regression, reveals significant differences in educational enrolment and outcomes by level of household expenditures and parental education, especially mother's education. Mother's status has been accounted for as more important in determining school enrolment than educational outcome. In contrast, father's education increases the probability of learning. Girls still do not have equal access to education, since girls doing badly in school drop-out, while their male counterparts continue to remain in school. The presence of a school in a poor village does not counter the effects of family background on educational enrolment. School fees do not determine school enrolment, since many of the poor happen to receive exemption from or reduction in these fees.

Considering the current trends in the literature on economic returns to education, it is argued (Matt Dickson, Colm Harmon, 2012) that the concept of the returns to education should include non-monetary returns.

Addressing the issue of raising school expenditure improving on educational outcomes in England, it is found (Helena, 2010) that the increase in school expenditure, over recent years, has had a consistently positive effect on outcomes at the end of primary school. There is also some evidence of heterogeneity in the effect of expenditure, with greater effect in the case of students from economically disadvantaged backgrounds.

Applying micro level data of five countries (Sulayman S. AL-Qudsi, 2003) and capturing the considerable variations in the pattern of school enrolment and school wastage according to rural-urban locations and family background variables, it is found that income gaps are powerful and interact with gender gap to produce differential school enrolment and wastage patterns. Access to credit restores the adverse effects on school enrolment of negative household economic shocks. It is suggested that intensive government efforts be made to increase School enrolment and retention as also to improve rural education, particularly for females and the underprivileged.

While examining the public infrastructure, location of private schools and primary school attainment in an emerging economy (India), it is found (Sarmistha Pal, 2010) that after controlling for all other factors, access to village infrastructural facilities is associated with a higher likelihood of having a private school in the community. The paper concludes by examining the effect of private school presence on year 5 pass rates: while all-school pass rates are significantly higher in villages with a private school, private school presence fails to have significant effect on local state school pass rates.

Taking the information on decisions of the entire population of high school graduates between 2002 and 2008 in seven of the 16 German states (Malte Hübner, 2012), it is found that tuition fees have a negative effect on enrolment behavior. The effect is larger than in existing studies for European countries, but of a similar magnitude as effects related to U.S. data. A potential spill-over effect of the policy intervention to the comparison group is accounted for by using the estimation results to calibrate a structural model of the enrolment decision.

Analyzing the five stages of education in China, one study (Rachel Connelly, Zhenzhen Zheng, 2003) trying to establish the location of residence and sex are to be highly correlated with enrolment and graduation. It is also found that it is the rural girls who are especially disadvantaged in terms of both enrolment and graduation rates. Parental education, the presence of siblings, county-level income and village level in-school rates also have consistent effects on enrolment and graduation milestones.

In a study in rural Maharashtra, (Jejeebhoy, 1993) it is found that an older girl child, with many younger siblings, has a corresponding lower chance of schooling. The same results were found in the study of Psacharopoulos et al, 1989 and Pandey, 1990. In Bangladesh, it was also found that 89 per cent of working children had no education, suggesting that work and education were seen as anti-thetical options (Bissell and Sobhan, 1996).

In a village level survey-based study in Orissa, Sailabala Devi (2001) observed that both father and mothers' education have a positive significant influence on the probability of enrolment in primary and upper-primary levels for boys and girls. But mothers' education has a stronger influence than that of the fathers' on girls' enrolment. An analysis in Tamil Nadu (Duraismy, 2004) has found that the educational level of both parents exerts a positive effect on the probability of enrolment of the child. But the results do not show any evidence of gender preference of the parents in this respect. However, father's education has a much higher effect than mother's education on grade attainment of their sons and daughters.

Public programmes and policies affect the child's schooling by reducing the direct and indirect cost of schooling. NCAER (2003) noted that geographical proximity of primary schools and enrolment ratio together account for more than 60 per cent variation in literacy rates (North India Human Development Report 2003, NCAER, New Delhi). The lack of access to 'relevant and quality' education is one of the factors causing prevalence of child labour (Canagarajah and Coulombe, 1997). In analyzing the attitude of rural parents of Punjab, Thind and Jaswal (2004) reported the non-availability of school as an important cause for not sending the girl child to school. Moreover, the parents believed that status of the family was judged by the area of land a family possesses, not by the level of education of the family members. Similar result has been found in several studies (Ramchandran and Saihjee, 2002; Devi Sailabala, 2001; Duraismy, P., 2001; PROBE report, 1999).

The studies of Psacharopoulos et al (1989) and Tansel (1997) also note that the positive effect of addition to resources from mothers' earnings can overshadow the negative impact of mothers' absence from home. Similarly, Dreze and Sen (2002), while discussing the schooling revolution in Himachal Pradesh, opined that a high level of female labour force participation raises the economic returns to female education and it is also revealed that status of women, including their educational status, will improve as a consequence of their increasing participation in the labour market and development process (Wazir, 2000). A Study (Reddy and Rao, 2003) in this area also does not find any significant impact of female work participation on the enrolment ratio of both male and female. The impact of Female Labour Force Participation Rate (FLFPR) on child schooling is still a matter of debate. From the studies of Pandey (1990), Jejeebhoy (1993), and Mukhopadhaya (1994), it is found that in general, FLFPR has a depressing effect on child schooling. An important result has been found in the village level study of Sengupta et al (2002) for West Bengal. While they find mothers' work participation has a significant negative effect on daughters' school enrolment, it has a negative but not significant impact on grade completion.

Parental education emerges as a significant determinant in household education decisions. All the field studies done under the UNDP programme confirm this result (Thind and Jaswal, 2004; Sengupta et al. 2002; Sailabala Devi, 2001; Bhatta, 1998). The study of Lloyd and Brandon (1994) in Ghana has emphasized that mothers favour the education of sons over daughters because of their greater dependence on children in their old age and their expectation of greater monetary returns from investment in sons.

## **An Outline of the District**

The origin of this district is linked with the partition of India at the dawn of independence in 1947. The Dinajpur district of undivided Bengal had been split into two parts after the partition, with one part being named West Dinajpur, which was incorporated in the province of West Bengal in India, and the other part Dinajpur in East Bengal of Pakistan. Since then, the district West Dinajpur was an undivided district until 1992. In order to facilitate the administrative set-up, the West Dinajpur district was again divided into two districts, namely, Uttar Dinajpur and Dakshin Dinajpur w.e.f. April 1, 1992. Thus, Uttar Dinajpur is a newly bifurcated district of West Bengal since 1992. The district is situated in the northern part of the state of West Bengal having borders with the neighboring country Bangladesh on the east, the state of Bihar on the west and by three other districts of West Bengal, namely Darjeeling, Malda and Dakshin Dinajpur, on the north and south.

The area of the district is 3140 square km. Road transport is the primary means of communication in this district. A small part of the district is connected by the Northern Frontier Railways. The National Highway Nos. 34 and 31 pass through the district and links the greater area of the district.

The district is purely agrarian in nature. However, after the partition of the district in 1947, the less fertile lands have fallen to India's lot. The principal crops are Aman (winter rice), Bhadoi (autumn rice), jute, rapeseed, mustard and sugarcane. The district is the main producer of jute in the state. Islampur sub-division plays a significant role in this regard. It may be noted that the district has two sub-divisions, namely Raiganj and Islampur. In recent times, Boro is extensively cultivated by using irrigated water. Among all the districts, it is one of the most backward in so far as industrialisation is concerned. Some small rice mills and mini oil mills are scattered in the district. Recently, two cold storages have been established under private entrepreneurship at Islampur sub-division. This has helped the vegetable growers store their products.

Two communities dominate the religious pattern of the district population. As per the 2001 census, Hindus comprise 51.72 per cent of the population and the Muslims 47.86 per cent. It has substantial proportion of Scheduled Caste population (27.7 per cent), with 5.1 per cent Scheduled Tribe population. Two important rivers course through the district. Among these, the Mahananda forms the north-west boundary of the district while separating it from Darjeeling district. The second, Nagar, almost follows the boundary line between Raiganj and Islampur sub-divisions. Two major languages are spoken in this district- Bengali and Urdu. The people of Raiganj sub-division speak mainly Bengali while those from Islampur sub-division usually speak Hindi, Urdu, Bengali and some local language that is a mixture of Hindi, Urdu and Bengali. Apart from this, Hindi speaking population is also found in the district.

Despite the fact that the undivided West Dinajpur was a low literacy district in the state, yet after the partition, educationally more backward areas came under Uttar Dinajpur district. The census data of 2001 shows that the decadal (1991-01) variation in literacy rate is 26 per cent in Dakshin Dinajpur but it is only 13% in Uttar Dinajpur. The district is also the least literate district in the state. With regard to female literacy rate, both Uttar Dinajpur and Purulia are placed at the bottom of the list, with around 30 per cent of the females in rural areas of the districts found to be literate (Census, 2001).

The district population is about 24.5 lakhs of which 21.5 lakhs (88 per cent) are rural and the remaining 12 per cent (state average 28%) are from the urban areas. This indicates that the rural scenario dominates the status of all development indicators in this particular district. Irrespective of the fact that most of the population is rural in nature, the average literacy achievement in rural areas (42.86 per cent) is much below the urban literacy rate (80.50 per cent). At the same time, the district level rural literacy rate is far below that of any other district of the state, while also showing a large variation from the state average rate (63.4 per cent).

The Census of India (2001) published data for five major religious groups (viz. Hindu, Muslim, Sikh, Buddhist and Jain). The district-wise data reveals that the Muslim population in this district (47.36 per cent) is much higher than the State average (25.2 per cent) while the literacy level of the Muslims in the district (36 per cent) is much below the State average (57.47 per cent) of that particular religious group. Again, there is a large variation in literacy rate between Muslims (36 per cent) and non-Muslims (58 per cent) in this particular district. The survey of out-of-school children, conducted by SRI-IMRB in 2005, has indicated that the proportion of out-of-school children is the highest within the Muslim community (9.97 per cent) followed by 9.54 per cent and 8.17 per cent among Scheduled Tribes (STs) and Scheduled Castes (SCs) respectively, and 6.97 per cent among Other Backward Class (OBC) children (GOI, 2008). The majority (68.7 per cent) of out-of-school children has been overwhelmingly concentrated in five States-Bihar (23.6 per cent), UP (22.2 per cent), West Bengal (9 per cent), MP (8 per cent), and Rajasthan (5.9 per cent).

The Sachar Committee's report has also highlighted several dimensions of the lower educational status of Muslim children (GOI, 2006). The Ministry of Minority Affairs has identified 103 districts as minority concentrated districts, where the population of religious minorities exceeds 25%. In this respect, the district is a Muslim minority concentrated district and the overall district literacy rate and the very poor literacy rate of the minority section require serious attention for analyzing the educational backwardness of this district. Out of 10 least literate blocks of West Bengal (2001), five were found in Uttar Dinajpur district. Again, as per the Census 2001, there are as many as 37, 956 inhabited villages/census mouzas in West Bengal. The villages under the 17 districts have been arranged by their literacy rates and by calculating the literacy rate (person) of each of the villages in West Bengal, we have identified the villages with a literacy rate below 25 per cent and the identified villages are educationally deprived villages in the state. The state has 843 villages showing this minimum 25 per cent literacy rate. Uttar Dinajpur, with 207 villages in this category, tops the list, which apparently suggests that educational deprivation is mostly concentrated in this particular district.

Given the socio-economic background of the district and the depressing state of Literacy Attainment, the chapter provides a detailed analysis of the educational drawbacks of this district. It also attempts to assess the socio-economic and enabling attributes related to educational development, in general, and to investigate, in particular, the nature and causes of such educational deprivation in this district.

## Literacy Profile of Uttar Dinajpur

As stated earlier, after bifurcation in 1992, the district of Uttar Dinajpur inherited the educationally backward area defined in terms of blocks at sub-district level. A detailed portrayal of literacy status of the district is presented in Table-1. There is a large gap (37.64) between the rural and urban literacy rate in the district. The literacy rate in the urban frame of the district is almost equal to the state average while there is a large gap in literacy rate (21 per cent) within the rural area of the district and State. The proportion of urban population is moderately high in this district (around 13 per cent) compared to certain other districts where the total literacy rate is much higher than this very particular district. Therefore, the problem of educational backwardness appears to be mostly associated with the rural areas of this district.

The administrative set-up of the district comprises nine CD Blocks, four Municipalities and two Census Towns distributed across two sub-divisions, namely, Islampur and Raiganj. A cursory look at Table 1 reveals some important literacy facts on the blocks including municipal areas of this district. The literacy rate of each of the CD Blocks in Islampur sub-division is much lower than the literacy rate of the blocks under Raiganj sub-division. Similar divergence is noticeable in the urban areas of the two sub-divisions. An extensive gap in literacy achievement (around 20 per cent) is found in the two sub-divisions within the district.

TABLE 1

### Literacy rate in the Blocks and Municipalities of Uttar Dinajpur District as per Census, 2001

<i>CD Block/Town</i>	<i>% 6y+ Literacy 2001</i>	<i>% Male Literacy 2001</i>	<i>% Female Literacy 2001</i>	<i>Gender Gap in Literacy Rate, 2001</i>	<i>% 6y+ Literacy 1991</i>	<i>% Literacy Increase 1991-2001</i>	<i>No. of Villages with Literacy Rate &lt;25%</i>
Chopra	43.3	55.9	29.7	26.2	28.8	14.5	11
Islampur	38.4	50.3	25.7	24.6	23.2	15.2	17
Goalpokhar-1	31.6	42.6	19.8	22.9	17.6	14.0	51
Goalpokhar-2	34.1	44.0	23.6	20.5	18.4	15.7	55
Karandighi	37.6	48.9	25.5	23.3	23.3	14.3	48
Raiganj	51.5	63.0	39.1	23.9	35.4	16.1	9
Hemtabad	56.7	67.1	45.7	21.4	41.7	15.0	0
Kaliaganj	54.1	66.4	41.1	25.3	38.8	15.3	0
Itahar	47.4	57.8	36.5	21.4	32.1	15.3	16
Uttar Dinajpur (R)	42.9	54.2	30.8	23.4	27.8	15.1	207
Islampur Municipality	72.6	78.2	66	12.3	65.4	7.1	-
Dalkola Municipality	68.9	76.6	60	16.6	57.7	11.1	-
Raiganj Municipality	84.6	88.7	80	8.8	78.7	5.9	-
Nachhratpur Katabari CT	63.3	70.2	55.5	14.6	-	-	-
Kasba CT	82.5	89.2	74.8	14.4	69.6	12.9	-
Kaliaganj Municipality	79.2	85.5	72.5	13.0	73.6	5.6	-
Uttar Dinajpur (U)	80.5	85.5	74.8	10.7	74.5	6.0	-
Uttar Dinajpur (T)	47.9	58.5	36.5	22.0	34.6	13.3	207

Source: Calculated from Census, 1991 & 2001



Apart from this sub-divisional disparity, block level variation is also very high. Goalpokhar-I, with 31.6 per cent literacy rate, and Hemtabad, with 57 per cent literacy, have been positioned as the least and highest literate block in this district. The literacy rate in each of the block of Islampur sub-division is lower than the district average (rural) except Chopra. However, in the case of the blocks in the Raiganj sub-division, literacy rates are above the district average. The gender gap in literacy rates is the highest in Chopra block compared to the rest of the blocks in this district, while the female literacy rate is lowest in Goalpokhar-I Block. This indicates that the females are not included in the development process compared to the males in this block.

Out of 10 least literate blocks of West Bengal (2001), five are in Uttar Dinajpur district and all of them are in Islampur sub-division of the district. Goalpukur-I, Goalpokhar-II, Karandighi and Islampur are the four blocks in respect of low magnitude of literacy rate as depicted in 2001 Census. In all these four blocks, around three-fourth of the total number of females are illiterate. Again, in the previous chapter, mention has been made of 843 educationally deprived villages in the state, of which it is seen that 207 mouzas (around 25 per cent) belong to the district of Uttar Dinajpur. The 207 deprived mouzas across the blocks of the district have been arranged in Table-1. It is seen from the Table that out of 207 deprived mouzas, 182 mouzas (88 per cent of the total deprived mouzas) fall in the Islampur sub-division. The focus is, therefore, becoming more fine-tuned and educational backwardness appears to be more challenging in Islampur sub-division of the district. Table 1 categorically indicates the block-wise proportion of educationally deprived mouzas in which it is seen that Goalpokhar-II includes highest proportion of such deprived mouzas, followed by Goalpukur-I while Chopra has the least among the blocks of Islampur.

While assessing the decadal variation (1991–2001) in literacy rate, it is noticed that almost all the CD Blocks along with the district as a whole achieved a 14-16 per cent literacy jump. This, however, is not in consonance with experiences of most of the other blocks and districts of the state where low literate areas of 1991 achieved higher literacy jump in 2001, than the high literate regions/district. Thus, it appears that the socio-economic background of this district may have some distinct characteristics that disturb the process of educational development in this area. To identify such characteristics responsible for the educational backwardness of the district, an extensive survey based study of the district is required and has been undertaken in the subsequent chapter. However, prior to that, a multiple regression analysis is attempted using the secondary data at mouza level to identify socio-economic factors that are responsible for variations in literacy rates in this district.

Table 2 computed from Census 2001, shows the literacy rate of the marginalized segments of the population of the blocks in the district of Uttar Dinajpur. Literacy rate among the Scheduled Castes is marginally higher than the total literacy rate of the district while the same is far below the district average for the Scheduled Tribes. Significantly, the blocks under Islampur sub-division display an edge over the blocks under Raiganj sub-division in literacy achievement of the SCs, although it is a fact that the proportion of this backward segment of the population is significantly lower in Islampur sub-division as compared to Raiganj sub-division.

TABLE 2  
Literacy Rate among the Social Groups

Block/District	% of SC Population	% of ST Population	Literacy Rate (%)		
			TOTAL	SC	ST
CHOPRA	18.5	7.1	43.29	52.7	28.9
ISLAMPUR	17.6	2.4	38.39	54.8	27.4
GOALPOKHAR-1	14.3	3.8	31.60	50.7	17.9
GOALPOKHAR-2	23.2	6.2	34.11	44.8	26.1
KARANDIGHI	30.7	7.3	37.56	43.7	23.1
RAIGANJ	38.4	5.8	51.46	49.2	35.3
HEMTABAD	34.6	3.8	56.72	51.4	28.7
KALIAGANJ	60.5	4.6	54.13	48.6	38.7
ITAHAR	26.7	7.9	47.37	45.2	26.1
UTTAR DINAJPUR (Total)	27.7	5.1	47.89	50.1	28.7

Source: Calculated from Census, 2001

### Regional Variation in Performance and Enabling Economic Attributes: A Multiple Regression Analysis at Mouza Level

The presentation of educational scenario in the earlier section reveals that the educational backwardness of this district is mostly associated with the rural areas along with a substantial variation across the blocks and also across the villages of a particular block. In order to have a handle on the nature of variation at a more disaggregated level, the mouza level literacy rate of this district is calculated from the census data (2001). All the mouzas having a population size of more than 200 are included in the analysis and, as such, 1403 mouzas qualify in this category out of a total 1477 mouzas in this district. The literacy distribution of these 1403 mouzas across the blocks is tabulated below in Table 3. The mouzas are classified as per their literacy rate and grouped into four categories depending on the range of literacy rate 0 to 20 per cent, >20 to 40 per cent, >40 to 60 per cent and more than 60 per cent. In all the blocks of Islampur Sub-division, more than 65 per cent of the mouzas are lying in the lower two literacy range categories (L1, L2; Table-5.3) except Chopra where the proportion of such mouzas is closer to 47 per cent. In all, 68 per cent of the mouzas of Islampur sub-division are having literacy rate below 40 per cent while the same is only 19 per cent in Raiganj sub-division. Significantly, almost all the mouzas (102 out of 105) of Hemtabad Block are in the two higher literacy ranges (H-1, H-2). On the other hand, in Goalpokhar-I, more than 80 per cent of the mouzas lie in the two lowest literacy range categories (L-1, L-2). This again categorically exhibits the poor literacy development of Islampur sub-division compared to the other sub-division of this district. None of the blocks of Islampur sub-division are found to be more advanced than the other blocks of the district in the above categories. This makes it imperative to focus on Islampur sub-division for indepth study of literacy achievement in the district. However, in order to have a priori knowledge of literacy achievement of the blocks, a multiple regression analysis has been attempted, with mouzas as the unit of observation.

TABLE 3  
Block-wise distribution of Mouzas as per the literacy range

Name of the Block	Number of Mouzas having the Literacy Range				Total No. of Mouzas
	Less than 20% L-2	>20% to 40% L-1	>40% to 60% H-1	More than 60% H-2	
CHOPRA	3	47	50	7	107
ISLAMPUR	8	57	30	4	99
GOALPOKHAR-1	23	88	21	5	137
GOALPOKHAR-2	32	80	43	8	163
KARANDIGHI	23	120	50	7	200
Islampur Sub Division	89	392	194	31	706
RAIGANJ	4	46	118	47	215
HEMTABAD	0	3	62	40	105
KALIYAGANJ	0	17	124	40	181
ITAHAR	4	60	110	22	196
Raiganj Sub Division	8	126	414	149	697
District	97	518	608	180	1403

Source: Calculated from Census, 2001

## The Model

Two regression equations for each of the nine CD blocks in this district have been estimated to determine the impact of several social and economic indicators on the two significant dependent variables, viz. male literacy rate and female literacy rate. The functional relation between the variables is specified below as linear combination of different explanatory variables:

$$MLR = a + b1DEPRATIO + b2WFPRF + b3CULT + b4AGRWRKR + b5FERTRT + b16SC + b7ST + U \text{ ----(1)}$$

$$FLR = a + b1DEPRATIO + b2WFPRF + b3CULT + b4AGRWRKR + b5FERTRT + b16SC + b7ST + U \text{ ----(2)}$$

Where 'a' is the intercept term, bis are the co-efficients to be estimated and U is the error term of the regression equation. MLR & FLR stand for the male and female literacy rates of the mouzas and are the dependent variables in the equation.

As explanatory variables, DEPRATIO is a ratio of non-worker to total worker within all the households of a particular mouza. This may be assumed as a surrogate of population dependency ratio as the economic burden of the non-workers are generally shouldered by the earning members. WFPRF is female work force participation rate. Proportion of cultivator (main & marginal) in total workforce (main & marginal) and similarly proportion of agriculture labourer in total work force have been represented by CULT and AGRWRKR respectively. It is of special interest to see whether there is any effect of the family size (HHSIZE) on literacy attainment. As a surrogate of fertility rate, the proportion of 0-6 year age- group population has been used and it is designated as FERTRT. Proportion of Scheduled Caste (SC) and Scheduled Tribe (ST) population are also incorporated to capture the impact of social backwardness in this district. School level enabling factors as explanatory variables are not used here owing to the non-availability of data at mouza level. This is the limitation of the present exercise. However, in an analysis (Reddy and Rao, 2003), based on the data collected from 3000 households in 12 villages of Andhra Pradesh, it has

been concluded that demand-side factors (poverty, economic activity, irrigation, work participation rate, etc.) show a significant impact on literacy and drop-out rates. Supply or access related factors (coverage of school, pupil-teacher ratio, % of female teacher etc.), on the other hand, do exert their influences on both but very significantly on enrolment rates.

The regression analysis has been carried out at district and block level (for each blocks separately) taking mouzas as unit of observation in both the cases. Intra-block comparisons are also undertaken to capture the specific socio-educational characteristics of the blocks separately.

The study, thus, explores the effects of some socio-economic factors on literacy attainment of males and females separately which will facilitate in categorically identifying the factors responsible for differential literacy attainment. Secondly, regression analysis for each block, along with a district analysis, helps in identifying the regional issues within the district, which is the prime objective of the whole econometric exercise.

## Analysis of Regression Results

The Regression Result of 09 blocks along with the district as whole has been presented in Table 4.

TABLE 4  
Result of the Regression

<i>CD Block Chopra</i>								
<i>Variables</i>	<i>Model-1 MLR</i>				<i>Model-2 FLR</i>			
	<i>Unstandar- dized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>	<i>Unstandar- dized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>
(Constant)	98.801	15.223	6.490	0.000	79.227	13.144	6.028	0.000
DEPRATIO	-1.023	4.414	-0.232	0.817	1.406	3.811	0.369	0.713
WFPRF	0.031	0.232	0.133	0.894	0.065	0.200	0.326	0.745
CULT	0.019	0.090	0.206	0.837	-0.005	0.078	-0.064	0.949
AGRWRKR	-0.108	0.066	-1.621	0.108	-0.052	0.057	-0.905	0.368
SC	0.015	0.046	0.335	0.738	-0.057	0.040	-1.434	0.155
ST	-0.165**	0.081	-2.038	0.044	-0.149**	0.070	-2.139	0.035
FERTRT	-1.627***	0.426	-3.819	0.000	-2.145***	0.368	-5.830	0.000
R2	0.307				R2	0.349		
Adj. R2	0.258				Adj. R2	0.303		
N	108				N	108		

Table Contd...

<b>CD Block Islampur</b>								
<i>Variables</i>	<i>Model-1 MLR</i>				<i>Model-2 FLR</i>			
	<i>Unstandar-dized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Varia-bles</i>	<i>Unstandar-dized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Varia-bles</i>
(Constant)	94.765	15.204	6.233	0.000	66.055	12.272	5.383	0.000
DEPRATIO	-5.348	4.233	-1.263	0.210	-3.500	3.417	-1.024	0.308
WFPRF	-0.365	0.232	-1.570	0.120	-0.216	0.188	-1.150	0.253
CULT	-0.314**	0.113	-2.777	0.007	-0.270**	0.091	-2.963	0.004
AGRWRKR	-0.332***	0.100	-3.307	0.001	-0.352***	0.081	-4.345	0.000
SC	0.168**	0.064	2.630	0.010	0.096*	0.052	1.854	0.067
ST	-0.205	0.171	-1.199	0.234	-0.097	0.138	-0.702	0.485
FERTRT	-0.290	0.360	-0.806	0.422	-0.377	0.291	-1.296	0.198
R2	0.313				R2	0.329		
Adj. R2	0.260				Adj. R2	0.278		
N	98				N	98		
<b>CD Block Goalpokhar-1</b>								
<i>Variables</i>	<i>Model-1 MLR</i>				<i>Model-2 FLR</i>			
	<i>Unstandar-dized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>	<i>Unstandar-dized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>
(Constant)	63.966	16.212	3.945	0.000	37.689	12.435	3.031	0.003
DEPRATIO	-9.394*	5.223	-1.799	0.074	-5.651	4.006	-1.411	0.161
WFPRF	-0.404**	0.170	-2.374	0.019	-0.248*	0.131	-1.900	0.060
CULT	-0.055	0.083	-0.665	0.507	-0.120*	0.064	-1.892	0.061
AGRWRKR	-0.079	0.082	-0.967	0.335	-0.150**	0.063	-2.387	0.018
SC	0.387***	0.043	8.950	0.000	0.295***	0.033	8.896	0.000
ST	-0.343**	0.165	-2.085	0.039	-0.158	0.126	-1.253	0.213
FERTRT	0.191	0.263	0.725	0.470	0.185	0.202	0.918	0.360
R2	0.415				R2	0.438		
Adj. R2	0.384				Adj. R2	0.408		
N	163				N	163		
<b>CD Block Goalpokhar-2</b>								
<i>Variables</i>	<i>Model-1 MLR</i>				<i>Model-2 FLR</i>			
	<i>Unstandar-dized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>	<i>Unstandar-dized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>
(Constant)	80.134	11.307	7.087	0.000	51.661	8.717	5.926	0.000
DEPRATIO	-1.237	2.506	-0.494	0.622	1.126	1.932	0.583	0.561
WFPRF	-0.103	0.139	-0.736	0.463	-0.002	0.108	-0.019	0.985
CULT	-0.347***	0.086	-4.049	0.000	-0.372***	0.066	-5.628	0.000
AGRWRKR	-0.506***	0.076	-6.614	0.000	-0.461***	0.059	-7.815	0.000
SC	0.246***	0.044	5.612	0.000	0.175***	0.034	5.195	0.000
ST	0.071	0.062	1.152	0.251	0.131**	0.048	2.745	0.007
FERTRT	-0.080	0.280	-0.286	0.775	-0.054	0.216	-0.249	0.803
R2	0.420				R2	0.446		
Adj. R2	0.394				Adj. R2	0.421		
N	200				N	200		

Table Contd...

Differential Literacy Attainment of the Blocks of Uttar Dinajpur District

<b>CD Block Karandighi</b>								
<i>Variables</i>	<i>Model-1 MLR</i>				<i>Model-2 FLR</i>			
	<i>Unstandar-dized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>	<i>Unstandar-dized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>
(Constant)	64.768	10.725	6.039	0.000	47.468	8.426	5.633	0.000
DEPRATIO	-4.270	3.184	-1.341	0.181	-1.636	2.501	-0.654	0.514
WFPRF	-0.222*	0.129	-1.720	0.087	-0.162	0.101	-1.599	0.111
CULT	-0.030	0.072	-0.411	0.682	-0.114**	0.056	-2.022	0.045
AGRWRKR	-0.437***	0.059	-7.454	0.000	-0.420***	0.046	-9.126	0.000
SC	0.383***	0.034	11.314	0.000	0.225***	0.027	8.445	0.000
ST	0.113**	0.045	2.497	0.013	0.089**	0.036	2.494	0.013
FERTRT	0.090	0.232	0.389	0.697	-0.147	0.182	-0.809	0.420
R2	0.487				R2	0.418		
Adj. R2	0.468				Adj. R2	0.397		
N	138				N	138		
<b>CD Block Raiganj</b>								
<i>Variables</i>	<i>Model-1 MLR</i>				<i>Model-2 FLR</i>			
	<i>Unstandar-dized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>	<i>Unstandar-dized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>
(Constant)	122.526	11.396	10.752	0.000	101.801	10.759	9.462	0.000
DEPRATIO	-12.907**	4.572	-2.823	0.005	-9.986**	4.317	-2.313	0.022
WFPRF	-0.431**	0.164	-2.632	0.009	-0.415**	0.154	-2.683	0.008
CULT	0.028	0.062	0.450	0.653	-0.114*	0.059	-1.930	0.055
AGRWRKR	-0.261***	0.062	-4.241	0.000	-0.343***	0.058	-5.892	0.000
SC	0.098**	0.030	3.250	0.001	0.024	0.028	0.848	0.398
ST	-0.041	0.080	-0.507	0.612	-0.035	0.076	-0.460	0.646
FERTRT	-0.993***	0.225	-4.415	0.000	-0.905***	0.212	-4.264	0.000
R2	0.285				R2	0.349		
Adj. R2	0.261				Adj. R2	0.327		
N	215				N	215		
<b>CD Block Hemtabad</b>								
<i>Variables</i>	<i>Model-1 MLR</i>				<i>Model-2 FLR</i>			
	<i>Unstandar-dized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>	<i>Unstandar-dized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>
(Constant)	54.176	12.755	4.247	0.000	48.979	11.570	4.233	0.000
DEPRATIO	6.295	3.880	1.622	0.108	3.792	3.520	1.077	0.284
WFPRF	0.146	0.140	1.037	0.302	0.017	0.127	0.136	0.892
CULT	0.159**	0.074	2.129	0.036	0.075	0.068	1.109	0.270
AGRWRKR	-0.228**	0.075	-3.059	0.003	-0.200**	0.068	-2.959	0.004
SC	0.052*	0.029	1.828	0.071	-0.090**	0.026	-3.475	0.001
ST	-0.299**	0.138	-2.159	0.033	-0.240*	0.126	-1.914	0.059
FERTRT	0.246	0.313	0.788	0.432	0.075	0.284	0.266	0.791
R2	0.274				R2	0.320		
Adj. R2	0.221				Adj. R2	0.271		
N	106				N	106		

Table Contd...

<i>CD Block Kaliyaganj</i>								
<i>Variables</i>	<i>Model-1 MLR</i>				<i>Model-2 FLR</i>			
	<i>Unstandardized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>	<i>Unstandardized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>
(Constant)	77.070	11.870	6.493	0.000	60.189	12.381	4.861	0.000
DEPRATIO	2.573	4.820	0.534	0.594	0.750	5.027	0.149	0.882
WFPRF	0.014	0.142	0.095	0.924	-0.038	0.149	-0.253	0.801
CULT	-0.062	0.060	-1.039	0.300	-0.079	0.063	-1.254	0.212
AGRWRKR	-0.127*	0.065	-1.962	0.051	-0.043	0.068	-0.639	0.524
SC	-0.101***	0.024	-4.155	0.000	-0.221***	0.025	-8.736	0.000
ST	-0.263**	0.076	-3.473	0.001	-0.375***	0.079	-4.750	0.000
FERTRT	0.021**	0.252	0.084	0.933	0.045	0.263	0.173	0.863
R2	0.192				R2	0.384		
Adj. R2	0.160				Adj. R2	0.359		
N	181				N	181		
<i>CD Block Itahar</i>								
<i>Variables</i>	<i>Model-1 MLR</i>				<i>Model-2 FLR</i>			
	<i>Unstandardized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>	<i>Unstandardized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>
(Constant)	102.978	13.478	7.640	0.000	85.234	12.027	7.087	0.000
DEPRATIO	-6.013	4.982	-1.207	0.229	-7.206	4.446	-1.621	0.107
WFPRF	-0.213	0.153	-1.388	0.167	-0.336**	0.137	-2.458	0.015
CULT	-0.263***	0.073	-3.611	0.000	-0.200**	0.065	-3.067	0.002
AGRWRKR	-0.453***	0.068	-6.698	0.000	-0.392***	0.060	-6.491	0.000
SC	0.010	0.028	0.373	0.710	-0.133***	0.025	-5.299	0.000
ST	-0.041	0.051	-0.804	0.422	-0.119**	0.045	-2.641	0.009
FERTRT	0.000	0.236	-0.001	0.999	0.087	0.211	0.411	0.681
R2	0.271				R2	0.402		
Adj. R2	0.243				Adj. R2	0.380		
N	196				N	196		
<i>District Uttar Dinajpur</i>								
<i>Variables</i>	<i>Model-1 MLR</i>				<i>Model-2 FLR</i>			
	<i>Unstandardized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>	<i>Unstandardized Coefficients</i>	<i>Std. Error</i>	<i>'t' value</i>	<i>Sig.</i>
(Constant)	102.796	4.162	24.696	0.000	86.776	3.879	22.372	0.000
DEPRATIO	-9.044***	1.280	-7.066	0.000	-9.190***	1.193	-7.705	0.000
WFPRF	-0.398***	0.052	-7.651	0.000	-0.421***	0.048	-8.679	0.000
CULT	-0.041	0.026	-1.551	0.121	-0.056**	0.025	-2.256	0.024
AGRWRKR	-0.195***	0.024	-8.250	0.000	-0.164***	0.022	-7.459	0.000
SC	0.170***	0.013	13.502	0.000	0.061***	0.012	5.165	0.000
ST	-0.070**	0.025	-2.755	0.006	-0.086***	0.024	-3.628	0.000
FERTRT	-0.829***	0.101	-8.194	0.000	-1.008***	0.094	-10.693	0.000
R2	0.292				R2	0.229		
Adj. R2	0.288				Adj. R2	0.225		
N	1403				N	1403		

\*Significant at 1%, \*\*Significant at 5%, \*Significant at 10%

## **Economic Dependency and Literacy Attainment**

The DEPRATIO (Non-worker/Worker) is calculated as a ratio of non-worker to total worker at the district, block and mouza levels. The overall dependency ratio for the district is 1.61. The non-workers are the remaining part of the population who are not in the workforce (main & marginal). As such, a lion's share of them is either children or old-age members along with other non-working males and females. The variable is found to be significant and inversely related to literacy attainment of both the genders at district level. This implies that with an increase in the ratio, i.e. with increase in the number of non-workers in a village, the literacy rate will decline and this depressing effect is more prominent for the female literacy rate than male and vice-versa. Considering the various segments of population in the non-workers category, one can arrive at several explanations of how each component can impact the literacy rates. However, the variable is not found to be significant at block level in most of the blocks of the district. In the blocks of Islampur sub-division, it is insignificant except in Goalpokhar-I, while the ratio appears to be significant with strong negative impact on literacy rate in the blocks of Raiganj sub-division except Kaliyaganj.

## **Female Work Participation and Literacy Attainment**

Most of the Indian studies (Pandey, 1990; Jeejeebhoy, 1993; Krishnaji, 2001 and Mukhopadhaya, 1994) have established the negative impact of WFPRF on literacy and enrolment. This is partly because the daughters have to shoulder the responsibilities of household chores and sibling care and partly because the lack of maternal attention and supervision discourages girl children's schooling. The WFPRF, which is measured as the proportion of total female workers to total female population, is inversely related to literacy rates of both males and females at district level, supporting the earlier numerous studies. But at sub-district level, the result is not uniform. Only in two blocks (Goalpokhar-I and Raiganj), it is found to be statistically significant with negative impact on both male and female literacy rate. In Karandighi, it is found to be significant in influencing male literacy rate and in Itahar, the female literacy rate. In the five blocks of Chopra, Islampur, Goalpokhar-II, Kaliyaganj and Hemtabad, the female workforce participation rate does not bear any significant statistical relation with the literacy development of those areas. It may be due to the fact that the additional resources from mothers' earnings have overshadowed the negative impact of mothers' absence from home (Psacharpoulos et al, 1989; Tansel, 1997). An important result in this respect has been found in a village level study in West Bengal (Sengupta et al; 2002). While the study found a significant negative effect of mothers' work participation rate on daughters' school enrolment, however, it had a negative but not significant impact on grade completion. The factor does not appear to have a significant impact on the probability of drop-out or retention in school. Thus, it appears that the negative impact of WFPRF on Literacy Attainment is not universally acceptable.

## **Agricultural Dependency and Literacy Attainment**

Agricultural dependency of any region can be measured by the proportion of workforce engaged in agricultural activities either as a cultivator or as agricultural labourer. Both the



indicators have been included in the present analysis as explanatory variables with a priori knowledge of their negative impacts on literacy attainment in so far as the earlier literature is concerned. It has been mentioned earlier that nearly 80 per cent of the Muslim population depends on agriculture in this district. The census data shows that 76.5 per cent of the total work force is engaged in agriculture in the rural area of which 32.7 per cent are cultivators (main & marginal) and 43.77 per cent are agricultural labourers (main & marginal). Thus, this economic variable is expected to play a significant role in determining any social variable in the rural areas of the district.

The review of the regression results so far show that at district level, an increase in the proportion of agricultural worker (AGRWRKR) exerts a significant negative impact on both male and female literacy rate with a marginally lesser depressing effect on female literacy rate. It may be worthy to note here that, seven out of nine blocks have more than 75 per cent of workers (except Chopra and Karandighi) depending on agriculture. During the paddy plantation season (mid-June to mid-July), a large number of agricultural worker is in demand in the rural areas of the district. The opportunity to work as an agricultural worker at an early age (schooling age) is more lucrative for the boys than girls. Most of the rural schools, especially the upper primary and high schools, are used to the paddy plantation leave instead of summer vacation. (The researcher himself is a headmaster of a rural co-educational higher secondary school under Chopra block but the said school used to remain open during the paddy plantation season. It has been an experience that during the month of June-July, the absenteeism among the boys significantly decreases. The similar experience has been shared from the adjacent schools too.) Thus, an increase in the agricultural worker decreases the chance of males to be literate. On the other hand, the regression result at district level shows that proportion of cultivator (CULT) has its negative impact on female literacy only. The negative influence of these two occupational variables has been observed more or less in all the remaining blocks with a few exceptions.

It is only in the Chopra block where both AGRWRKR and CULT have remained insignificant in affecting any of the literacy variables. It may be noted here that after 1990, a large percentage of agricultural land has been transferred to tea producing land in this block and the agricultural labourers and small cultivators have become tea producers and do not come under the agricultural labourer or cultivator category of workers. This may be one of the reasons for such a non-responsive result so far.

An interesting result has also been observed in the mouza level analysis. In Hemtabad, although the AGRWRKR has its negative effect, CULT exerts its positive significant impact for enhancing the male literacy rate. However, it remains insignificant for affecting the female literacy rate. On the other hand in Kaliyaganj, AGRWRKR does exert its negative impact (the co-efficient of the estimate is -0.122) on male literacy only. Proportion of cultivators in total workforce remains insignificant in affecting the literacy character irrespective of gender. This result should be an example since the above two blocks are the first and second highest literate blocks in the district, both of them being endowed with more than 80 per cent of rural earners dependent on agriculture. This makes it necessary to review some other related economic indicators. It has been seen that in Hemtabad, half of the villages have electricity for agricultural use, which is the highest in the district. Kaliyaganj too has a figure of 43.12 per cent in this regard. Furthermore, 28 per cent of the total villages of this block have road connectivity within the village which, again, is the highest among the blocks. Considering all these, it may be said that there is no uniform association between

agricultural occupation and level of literacy. Alternatively, it may be said that illiteracy is not necessarily associated with the predominantly agricultural family.

## **Social Backwardness and Literacy Attainment**

There are several studies (Devi, 2001, Acharya, 2001, Sengupta et al., 2002) regarding disparities in school enrolment and drop-out rates among the social groups (between general, SCs, STs). In a study of 1991 district level census data, Saldanha (1996) had noted that districts with higher than average SC/ST population will tend to have lower than average literacy rates. Anuradha Pande (2001), in her analysis, has noted that among the SC children, a girl child is more likely to attend to young siblings and take care of old members in the family than a boy child. In general, it is often said that the social backwardness has a close positive relation with educational backwardness too.

In the present analysis, at district level, the proportion of Scheduled Tribe population characteristically has exerted its negative impact on literacy rates with a substantially more depressing effect on overall female literacy rate. The same result is found in most of the blocks except Karandighi where the proportion of ST population has a positive influence on the literacy attainment both for the males and females.

However, the comparatively higher proportion of Scheduled Caste population in the district has a significantly positive influence on the overall literacy rates with an exception in Kaliyaganj block. This is substantiated by the data presented in Table 2 where it is seen that the literacy attainment of the Scheduled Caste population in the district is comparatively better than the overall literacy rate. Thus, summarily it may be stated that illiteracy is not necessarily a leading problem associated with the Scheduled Caste population.

## **Fertility Change and Literacy Attainment**

There are several studies in India where it is found that there exists a strong negative relationship between fertility levels and the adult female literacy rates. The study by Srinivasan (1991) demonstrated that female literacy correlates highly with fertility at state level and by repeating the same exercise in the states of Kerala and Uttar Pradesh, similar results were arrived at. Agnihotri (2002) examines the relationship between rural female literacy and the size of the child population (0-6 year) using block level data from the population Census of 1991 for West Bengal. He finds that a threshold level of female literacy is associated with a continuous decline in child population (0-6 year) as the female literacy levels go up. Amongst international studies a study in Ghana by Lloyd and Brandon (1994) has emphasized the complementary inhibiting effect of sustained high fertility on girls' educational progress. They conclude that high fertility appears to have a negative impact on education of girls. But it is also true that some other international studies differ from the above. Jejeebhoy (1995) has pointed out that the relationship between women's schooling and fertility – and particularly the effect of a modest level of schooling – is highly context-specific, varying by regions of the world, level of development and time.

However, in the present analysis, regressing the variable on male and female literacy rate, the following results have been found. At district level, the variable 'Fertility Change' shows stronger negative impact on both male and female literacy rate."

But the same is found to be insignificant in all the blocks except Raiganj. Explanation for such a paradoxical result is as follows: On observing such a paradoxical result, it was necessary to segregate the mouzas according to their average size of child population. The methodology applied here is detailed below.

The size of child population is 17.94 per cent of the total population in India, while it is 16.98 per cent in West Bengal. The Uttar Dinajpur district in the state has 20.49 per cent in this respect. The decadal (1991-2001) growth rate of population (28.7 per cent) and the fertility rate (4.0 per cent) are both higher in this district compared to the other districts in West Bengal. Considering such an observation, segregation of the mouzas under the district was done accordingly – those with above the average district size of child population and those maintaining less than or equal to the average district size. As such, it was found that there were 1271 mouzas under the first category and the remaining 132 in the second category. Such segregation is completely a special interest of the study to observe the literacy variation in such two segregated groups characterized by child population. After the segregation of mouzas, regression has been run separately for each category. For mouzas of child population size above the district average, the variable significantly influences the literacy attainment of both the males and females. However, it remains insignificant where the mouzas are endowed with comparatively lower proportion of child population.

## Conclusion and Policy Measures

High population growth (28.7 per cent 1991-2001) in the district causes high dependency ratio which, in turn, explains the low literacy achievement in the district as well as in the blocks too (except two blocks).

The WFPRF is found as a negative factor to literacy rates of both males and females at district level, supporting the numerous studies earlier. *But, at the block level, this result is not uniform.* Considering all these, it may be said that illiteracy is not necessarily associated with the predominantly agricultural family. Rather, by modernizing agriculture and by providing better basic infrastructural facilities to the people, the scenario can be changed in favour of literacy and Literacy Attainment.

Social backwardness has its adverse effect on incidence of literacy. However, this has been found to be true only for ST and not for SC population of the district Uttar Dinajpur. This common trend is also not uniform across the blocks. In some blocks (Itahar, Kaliyaganj, Hemtabad) the proportion of SC population is associated with lower literacy attainment, whereas, lower literacy achievement is only seen in Karandighi block where ST population proportion is higher. Thus, it may be concluded that social backwardness, as a cause of lower literacy attainment, is true for ST population proportion. But it does not hold good for the SC population.

In the present analysis, Fertility Change is measured by the size of 0-6 age group population. At district level, the variable shows stronger negative impact on both male and female literacy rate. But the same is found to be insignificant in all the blocks except Raiganj. On observing such a paradoxical result, it was necessary to segregate the mouzas according to their average size of child population. In case of child population size above the district average, the variable significantly influences the literacy attainment of both the males and females. However, it remains insignificant where the mouzas are endowed with comparatively lower proportion of child population.

Lastly, Muslim population in this district is much higher than the state average while the literacy level of the Muslims in the district (36 per cent) is much below the state average of this particular religious group (54.7 per cent). Again, there is a large variation in literacy rate between Muslims (36 per cent) and non-Muslims (58 per cent) in this particular district. As such, the education of this religious community requires serious attention.

Interestingly, it is found that the socio-economic correlates which are important and significant at district level are not equally important and significant at block level. This is due to large-scale variations in such characteristics across blocks. Thus policy initiatives, separately for different socio-economic features, are necessary for specific blocks.

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## Improving Access and Quality in the Indian Education System\*

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### Abstract

Education has been given high priority by India's central and state governments and continues to grow fast. School access has been expanded by investment in school infrastructure and recruitment of teachers. In higher education too, the number of providers continues to rise rapidly. A new law enshrining the rights of all children to free and compulsory education will further lift enrolment, bringing closer the government's goal of universal elementary education, which comprises eight years of schooling. Nevertheless, high drop-out rates and low attendance continues to be a challenge at lower levels and enrolment at higher levels remains modest by international standards. Private sector involvement is on the rise. While it helps expand education infrastructure, particularly in higher education, access has not always been assured and the availability of student loans for higher education needs to improve. Poor learning outcomes amongst school students and mediocre higher education provision call for more effective government regulation and funding arrangements. Expanding resources will help but they need to be deployed more effectively, while incentives and professional development systems for teachers need to be strengthened. In higher education, the government has proposed reforms, which have the potential to bring about much-needed improvements in regulatory effectiveness. Efforts should focus on reducing micro-regulation and improving institutional autonomy in order to stimulate innovation and diversity. Increasing the number of institutions subjected to quality assessments will be important for lifting standards across the higher education system, while reform of recruitment and promotion mechanisms could help attract and retain talent in academia.

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The education sector in India is experiencing rapid expansion and change. Governments have implemented new initiatives and increased spending to encourage greater enrolment and attendance at the school level. In higher education they are seeking to implement wide-ranging changes to the regulatory framework. At the same time, the rising affluence and aspirations of households is spurring strong demand for education at all levels and the traditional dominance of the public sector, as a provider of education, is receding. The dual challenge now is to build on the considerable progress made in lifting participation and, equally importantly, improve the quality of education outcomes. To meet these objectives, the reform momentum needs to be maintained and broadened. This is especially so given the pace of development in the Indian economy, the changing needs of households and businesses, and the considerable lags between changes in education policies and outcomes.

This paper begins with a review of education achievements since the 1990s, including government commitments to expand education and the progress made in lifting participation. The current state of education quality is also examined. The paper then turns to the rising importance of private education and the opportunities and challenges this presents for improving access and quality. Next, the paper discusses the areas where reforms are needed to improve the quality of schooling and higher education. The paper concludes with a summary of policy recommendations.

## **Education is expanding rapidly but quality is often low**

### **Resources and participation are rising strongly**

Central and state governments continue to accord a high priority to expanding the supply of education and increasing participation, especially at the primary level. The universalisation of elementary education, defined in India as Grades one to eight, was given a renewed impetus in April 2010 when the Right of Children to Free and Compulsory Education (RTE) Act came into force (Box 1). This landmark piece of legislation builds on the 2001 *Sarva Shiksha Abhiyan* central government programme, which aimed for universal enrolment and retention at the elementary level by 2010. The cornerstone of the Right to Free Education Act is the provision of free and compulsory education to all children between the ages of six and 14 and a commitment to ensure access to a neighbourhood elementary school throughout the country by 2013. The government has also set ambitious goals to raise participation at the secondary and tertiary levels. Under the *Rashtriya Madhyamik Shiksha Abhiyan* initiative, it is planning a rapid expansion in the number of secondary schools, with the aim of achieving universal lower secondary enrolments (upto and including Grade 10) by 2017 and universal retention by 2020 (MHRD, 2010). Similarly, the government is aiming to lift the tertiary enrolment rate to 30% by 2020.

Since the early 1990s, public spending on education has expanded strongly, though not faster than GDP (Table 1). However, given the high proportion of expenditure devoted to teacher salaries, infrequent adjustments associated with Pay Commission outcomes have resulted in uneven yearly growth. On average, combined central and state government expenditure has risen at an annual rate of around six per cent in real terms since the early 1990s, in line with GDP. In 2008-09, public spending amounted to 3.8 per cent of GDP, similar to some other large emerging countries, notably China, but much below most OECD countries.



### Box 1 : The Right to Free Education Act

The Right of Children to Free and Compulsory Education (RTE) Act (2009), which came into effect on 1 April 2010, enshrines in law for the first time the rights of all Indian children aged between six and 14 years to free and compulsory elementary education. Under the Act the state is liable for all direct and indirect costs of education, including tuition and the provision of uniforms and textbooks, as well as ensuring access to a place at a neighbourhood school, or alternatively free transport to the nearest school. The government is also responsible for students' ongoing attendance and completion of their studies. Enforcement of the Act is to be monitored by central and state government child protection commissions. However, to encourage parent and broader community participation in school monitoring and decision-making, schools are required to form a School Management Committee (SMC) with at least three quarters parents and at least half women. SMC's are empowered to monitor the performance of schools and the use of government grants, to prepare school development plans and to fulfil other functions prescribed by state governments.

The Act stipulates a number of minimum standards concerning teachers and school infrastructure. All private schools are required to obtain a certificate of recognition from a government authority which requires that all standards notified in the Act be met within three years. Schools failing to do so will be subject to punitive actions. School buildings must be all-weather, have a kitchen for the preparation of midday meals, separate toilets for girls and boys, have access to safe drinking water and a library and playground. The student-teacher ratio is capped at 30 to 1 for grades one to five and 35 to 1 for grades six to eight. In addition, for each school offering upper primary education, at least one specialist teacher in each of the fields of social studies, languages and science and mathematics must be employed. All teachers are required to hold a minimum qualification, determined by state government rules, within a five-year phase-in period and are to be remunerated according to state government specified norms. All teachers are required to work a minimum of 45 hours each week and 200 days per year and are prohibited from engaging in private tutoring. Teachers are also required to hold regular parent-teacher meetings.

To increase choice and to promote an inclusive education system and classroom diversity, the Act requires all private schools to allocate at least 25% of places in first grade to government-funded students from officially-defined minority groups and economically disadvantaged backgrounds. Schools will be required to ensure that education is provided freely to those pupils until the completion of grade eight and will be reimbursed directly according to whichever is lower of the cost borne by the private school or the equivalent cost in a public school.

*Source:* Right of Children to Free and Compulsory Education Act.

Although education is the shared responsibility of the central and state governments, traditionally the states have had primary responsibility for funding (Box 2). However, there has been a gradual shift towards greater central government funding which now accounts

for around a quarter of total spending, double the share in the early 1990s. This change reflects a greater ability of the central government to find new sources of revenue to fund education spending, including the introduction of a two per cent levy in 2004 on all central government taxes which was raised to three per cent in 2007. As central government spending is heavily tilted towards plan expenditures, much of the growth in spending has been directed at strategic programmes, including expanding school access, some of which involve cost-sharing arrangements with the states. Under the *Rashtriya Madhyamik Shiksha Abhiyan* initiative, for example, the central government provides 75 per cent of funding, rising to 90 per cent in poorer north-eastern states. The number of private schools and higher education institutions has risen strongly and National Sample Survey (NSS) data indicate that household spending on tuition fees alone amounted to around 0.9 per cent of GDP in 2007-08.

TABLE 1  
Government spending and total number of public and private schools and teachers

	Public education spending						Number of teachers (000s)	Number of schools (000s)
	% total government spending		Total % GDP	Sector (%)				
	States	Centre		Elementary	Secondary	Higher and other		
1992-93	18.9	2.3	3.7	45	34	21	4 131	814
1993-94	18.4	2.6	3.6	46	33	21	4 192	822
1994-95	18.4	2.4	3.6	46	33	21	4 325	851
1995-96	19.1	3.5	3.6	48	32	20	4 465	867
1996-97	18.5	3.1	3.5	49	32	19	4 569	887
1997-98	18.8	3.0	3.5	50	32	18	4 704	912
1998-99	19.4	3.4	3.9	49	33	18	4 837	934
1999-00	20.3	3.6	4.2	46	34	20	4 998	972
2000-01	20.7	3.1	4.3	48	32	20	4 983	971
2001-02	17.4	3.9	3.8	50	32	18	5 173	1 017
2002-03	16.4	3.9	3.8	49	32	19	5 527	1 034
2003-04	16.4	3.6	3.5	50	32	18	5 713	1 120
2004-05	16.5	3.6	3.4	51	30	18	5 833	1 194
2005-06	17.0	4.5	3.4	53	29	18	6 008	1 221
2006-07	16.4	5.8	3.6	54	29	17	6 125	1 249
2007-08	16.2	5.4	3.7	55	28	17	6 241	1 278
2008-09	16.2	6.1	3.8	52	29	19	-	-

Note: Sector allocations of public spending comprise spending by education departments only. School and teacher numbers include the public sector as well as the officially recognised private sector.

Source: CEIC, De and Endow (2008), MHRD (2010), Planning Commission (2010) and Selected Educational Statistics.

### Box 2: India's diverse education landscape

India's federal system, sustained rapid economic development and private sector dynamism, have led to the emergence of a diverse education sector. Since 1976, education has been listed as a concurrent item in the Indian Constitution, making funding and regulation the shared responsibility of the central and state governments, although the latter still account for the largest spending share. State governments, generally, have authority over the schools sector with responsibility for curricula and exams as well as teacher recruitment. Both the central and state governments have authority over the vocational education and training (VET) and tertiary sectors. The school system comprises primary and upper primary which, together, constitute compulsory elementary education, as well as secondary and upper secondary, which terminates in Grade 12 (Figure 1). The higher education system offers undergraduate bachelors degrees in general and specialised programmes of varying lengths, as well as post-graduate qualifications, including masters and doctor of philosophy degrees. In addition, a technical training stream commences following the completion of elementary education.

Reflecting the functional division between tiers of government, as well as the size and diversity of India, a range of funding and management models apply in the education sector. There are four principal types of schools. *Public schools* are publicly-funded and managed, typically by state or local governments, with a relatively small number by the central government. *Aided schools* rely on a combination of public and private funds and are managed privately. Often capital expenditures are met with private funds and recurrent expenditures, including teacher salaries, by state or local governments. *Unaided private schools* are privately managed and generally self-financed but may receive one-off government grants to finance specific capital expenditures. They fall into two categories: recognised and unrecognised. *Recognised private schools* have been approved by relevant education authorities and are affiliated with the central or state boards of education, thereby entitling students to sit for board examinations. In contrast, *unrecognised private schools* operate in the informal sector, cannot offer board examinations and are excluded from most official statistical sources. In order to benefit from government sponsored schemes that operate exclusively in public schools and to sit for school board examinations, some students reportedly enrol in both private and public schools.

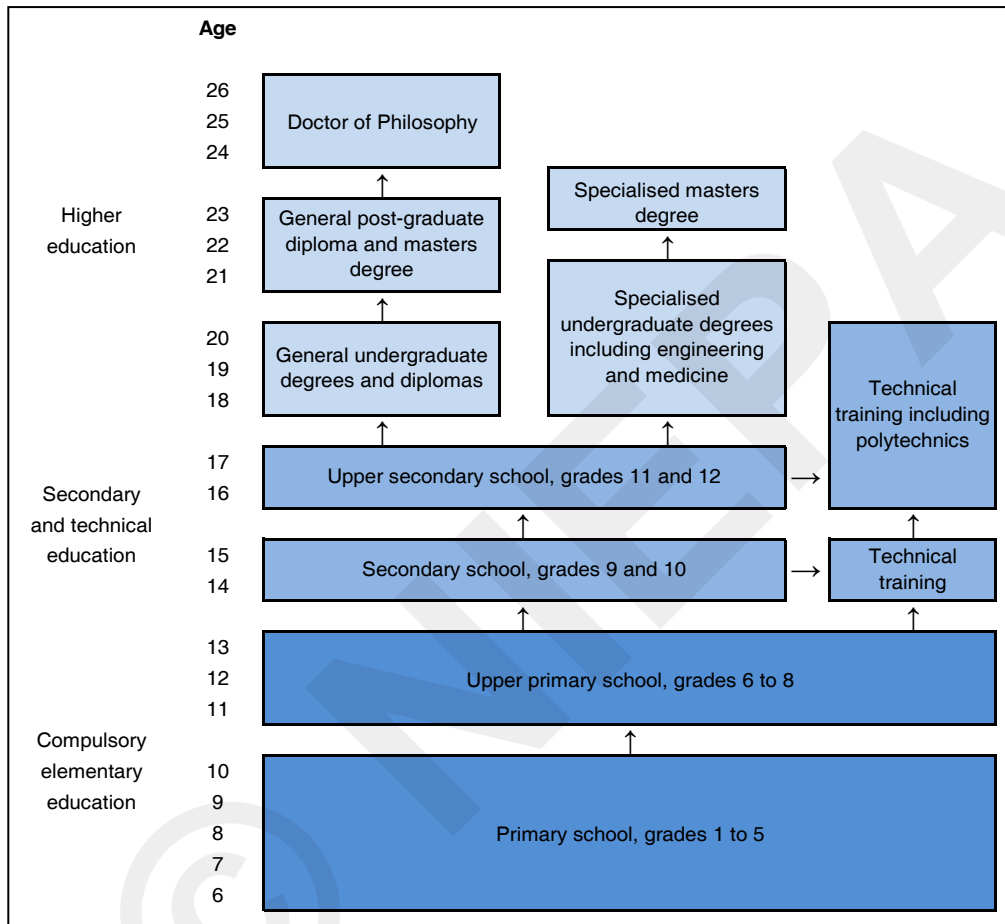
VET is provided through a diverse network of institutions. The initial point of entry is at the secondary school level. In the post-secondary segment, around 2 076 state government *Industrial Training Institutes* (ITI) and 5 529 private *Industrial Training Centres* (ITC) form the backbone of the VET system, offering specialised certificate-level courses and a pathway to professional apprenticeships. As in the school system, some institutions are privately managed but publicly funded. More advanced vocational training, leading to diplomas in technical disciplines, is provided by *Polytechnics*. Standards for most technical training are regulated by the National Council for Vocational Training as well as equivalent state-level authorities. Training in certain disciplines is provided by a separate network of specialised institutions, many of which are directly funded and regulated by government ministries.

*Public universities* are funded and managed either by the central or state governments. *Private universities* are normally self-financed but often receive support in the form of capital or land grants from governments in the start-up phase. A further distinction concerns *deemed universities*, which are accorded university status by the University Grants Commission (UGC), a central statutory authority, rather than through an Act of the Parliament or State Legislature. The bulk of undergraduate teaching is undertaken in *colleges*, most of which are affiliated to a university through which students sit for exams and earn degrees. *Public colleges* are funded and managed either by the central or, more commonly, state governments while *aided colleges* are funded publicly and privately managed. *Private unaided colleges* are entirely self-financed, mainly through tuition fees. There are around 534 universities, most of which are public and 25 951 colleges. In addition to universities and colleges, there are a small number of specialised institutions, including the *Indian Institutes of Technology* (IIT) and *Indian Institutes of Management* (IIM). These were established by the central government and are more independent financially with stronger revenue-raising capacity through higher tuition fees and other means.

The expansion in funding has helped underpin significant growth in the supply of education services. In the decade to 2007-08, the number of public and officially recognised private schools expanded by around 40 per cent, to approach 1.3 million, while the number of teachers rose by around 1.5 million, to exceed six million (Table 1). Thanks to this rapid expansion, the government has largely met its objective of ensuring neighbourhood access to elementary schools, even in rural areas where the government estimates that 99 per cent of the population lives within one kilometre of a school (MHRD, 2010). The higher education sector, too, has witnessed rapid growth. Although expanding more slowly than other parts of the education system during the early 2000s, the vocational education and training (VET) system, has grown rapidly in recent years. The number of industrial training institutions and centres, which form the backbone of the VET system, has more than doubled in the past decade. The number of universities and colleges has also risen strongly, more than doubling since the mid-1990s. Under the 11<sup>th</sup> Plan (2007-12), the government had intended to establish 16 new central universities and expand the number of specialised tertiary institutions. It has already met its target for new central universities and has established eight new elite Indian Institutes of Technology (IIT) and five Indian Institutes of Management (IIM). The government is also making use of information technology and communication to expand access to higher education. The system for distance-learning in the tertiary sector is already large and growing. Through its National Knowledge Network initiative, the government intends to connect all libraries, universities and other research institutions to improve resource sharing.

The strong supply-side expansion, together with rising household incomes and falling poverty, has ensured that good progress has continued to be made in lifting enrolment at all levels. The government's goal of universal enrolment at the elementary level, an objective first set in the 1960s, is now within striking distance. Gross enrolment rate (GER) data from the Ministry of Human Resource Development (MHRD), sourced from schools, show strong improvements at the elementary level through the 2000s. Primary enrolments rose from 95.7 per cent in 2000 to over 114 per cent by 2007-08, while upper primary rose from 58.6 per cent to 77.5 per cent. The very high GER at these lower levels are somewhat distorted by the large number of out-of-age enrolments. According to NSS data, net enrolment rates, which reflect the proportion of children of an official age group enrolled at a given level (rather than all enrolments as captured by the GER), indicate that enrolment rates at lower levels are significantly lower. The GER at the secondary and upper secondary levels have also risen, reaching 58.2 per cent and 33.5 per cent respectively in 2007-08, while the tertiary GER reached 13.6 per cent by 2007-08 (MHRD, 2010). Nevertheless, by international standards, enrolment at the secondary and tertiary level remains low, particularly in the latter (Figure 2).

**FIGURE 1**  
**Overview of the Indian Education System**

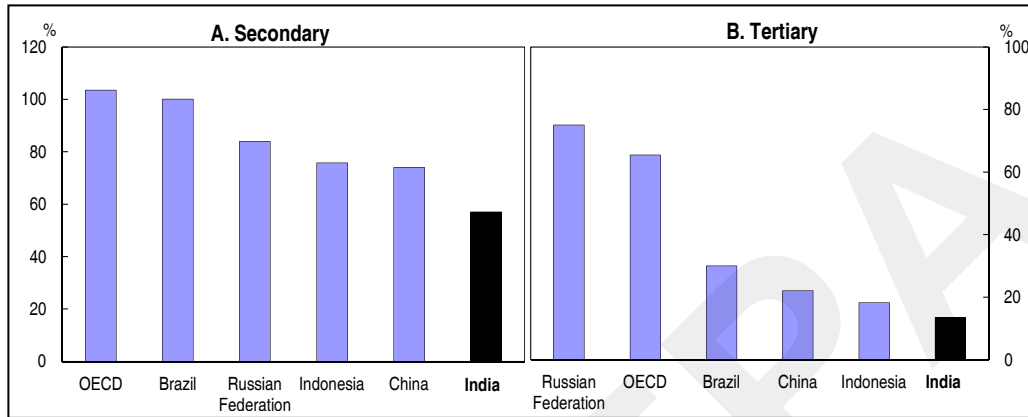


Note: Grade and age profiles vary across states and duration of higher education courses varies by discipline.

Source: Ministry of Human Resource Development.

Source: Agarwal (2009), Ministry of Labour and Employment (2010), Planning Commission (2010) and Tooley and Dixon (2007).

FIGURE 2  
Enrolment Rates: International Comparison



Source: World Bank, World Development Indicators.

Progress has also been made in reducing national gender disparities, which have historically been high, particularly at the lower rungs of education. MHRD data show that in 2007-08, the upper primary GER for boys was seven percentage points higher than for girls, down from a difference of over 16 percentage points a decade earlier. A similar differential exists at the secondary level. Since Independence, the Indian Constitution has contained affirmative action provisions which specify minimum reservations (quotas) in education, employment and politics for people from designated castes and tribes (Desai and Kulkarni, 2008). Scheduled Castes (SC) represent the lowest group in the caste hierarchy and Scheduled Tribes (ST) traditional tribal people. More recently, affirmative action has been extended to cover other marginalised groups, which are designated as Other Backward Castes (OBCs). Updated figures on these groups from the 2011 census were not available at the time of publication. However, according to the 2001 census, SCs and STs accounted for around a quarter of the total population. That census did not include a count of OBCs. More recent NSS data estimate that OBCs account for around 41% of the population and SCs and STs a little under 30% (Sethi and Somanathan, 2010). MHRD data show that in 2007-08, the upper primary enrolment rates amongst these groups was only marginally below the national average. However, progress amongst all groups continues to be uneven across states, with significant differences persisting at both the school and tertiary levels (Table 2). Generally, enrolment rates are significantly lower in the poorer northern and eastern regions, including the populous states of Bihar and Uttar Pradesh, where income levels and literacy rates remain well below the national average.

TABLE 2  
State-level enrolment rates, literacy rates and incomes in 2007-08

States	Gross Enrolment Rates						Literacy rate	GSP per capita (% national average)
	Elementary (Grade 1 to 8)		Secondary (Grade 9 to 12)		Tertiary			
	Males	Females	Males	Females	Males	Females		
Andhra Pradesh	99	94	76	66	20	12	68	100
Arunachal Pradesh	109	101	102	80	10	9	67	82
Assam	111	114	80	67	10	8	73	61
Bihar	93	85	54	36	9	4	64	31
Chandigarh	99	96	87	73	47	44	86	298
Chhattisgarh	108	99	56	51	7	3	71	85
Delhi	110	103	74	79	16	20	86	216
Goa	98	104	80	69	18	13	87	275
Gujarat	103	96	62	47	11	9	79	135
Haryana	111	104	85	66	15	16	77	161
Himachal Pradesh	113	110	98	91	12	11	84	118
Jammu & Kashmir	116	116	100	77	15	17	69	71
Jharkhand	102	101	65	46	13	9	68	58
Karnataka	102	96	72	65	17	9	76	105
Kerala	101	98	100	104	21	29	94	123
Madhya Pradesh	106	102	55	40	12	9	71	55
Maharashtra	101	100	80	67	17	16	83	142
Manipur	108	108	100	88	7	8	80	56
Meghalaya	109	119	64	51	12	9	75	84
Mizoram	109	107	71	85	16	12	92	81
Nagaland	112	107	101	98	11	12	80	57
Orissa	98	97	57	47	11	7	73	75
Puducherry	102	104	90	96	27	23	87	234
Punjab	104	102	64	69	11	12	77	132
Rajasthan	106	94	70	45	14	7	67	69
Sikkim	120	122	56	46	9	7	82	98
Tamil Nadu	100	102	82	83	18	15	80	116
Uttarakhand	104	99	84	78	11	9	80	96
Uttar Pradesh	100	94	58	46	14	15	70	47
West Bengal	102	103	51	47	14	8	77	89
<b>India</b>	<b>102</b>	<b>97</b>	<b>67</b>	<b>56</b>	<b>14</b>	<b>12</b>	<b>74</b>	-

Note: GSP is gross state product. Literacy rates are from the 2011 Census.

Source: CEIC, 2011 Census and NSSO, National Sample Survey 64<sup>th</sup> round.

School retention rates are also improving, with the proportion of children starting school, reaching the final year of a given level, rising markedly through the 2000s.

Nevertheless, in absolute terms, they remain low, with, on average, only three quarters of children, who started grade one in 2003-04 reaching fifth grade by 2007-08, with the proportion being even smaller in the case of children from minority groups. Retention rates drop off at higher levels of schooling, with only a little over half of those who started primary school in 2000-01 reaching eighth grade in 2007-08. Nevertheless, transition rates to tertiary education have risen over the past decade and are relatively high by international standards, with around half of all students who complete upper secondary school now taking up tertiary studies. Hence, improvements in school enrolment and completion rates will likely lead to much higher participation in tertiary education.

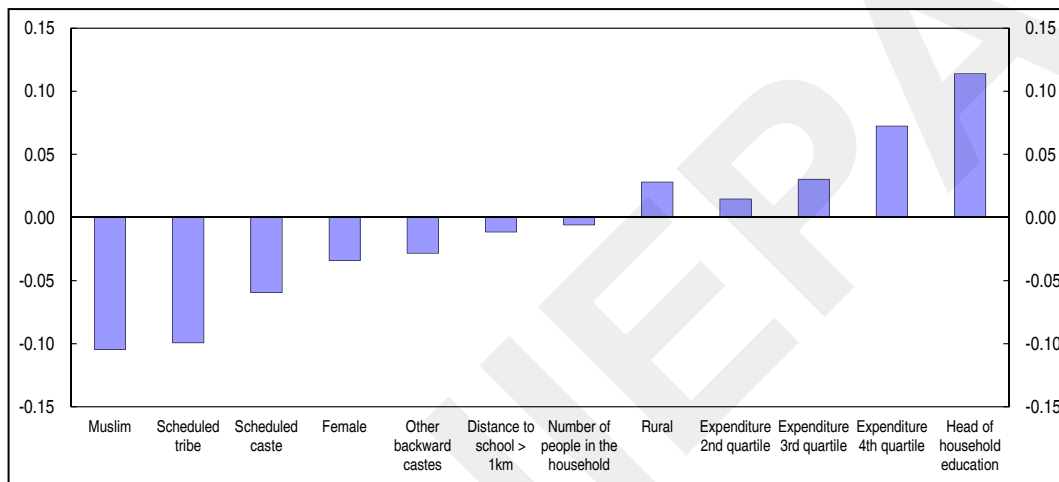
Even with improving enrolment and retention rates, student attendance continues to be patchy, with one national survey reporting that around one quarter of enrolled children were absent on any given school day (ASER, 2011). As the time spent in the classroom has a direct impact on learning, there is a significant need to lift attendance (Lavy, 2010). In emerging countries, education participation at the school level can be extremely sensitive to even small changes in costs and targeted programmes, that provide direct financial assistance or in-kind rewards, have been shown to have a significant positive impact (Kremer and Holla, 2008). The elimination of tuition fees and the provision of subsidies for school uniforms, for example, have been shown to improve enrolment and attendance, and reduce drop-outs (Evans *et al.*, 2008). In India, NSS data confirm that there is a strong positive correlation between enrolment and household affluence at all levels of education and responses to NSS questions, on why students drop out of school, confirm that financial constraints are among the most important factors. In contrast, factors reflecting key education “inputs”, including distance to school and school infrastructure as well as inadequate numbers of teachers, which have been a key focus of government policy initiatives, were relatively unimportant in influencing the decision to drop out. For the age cohort corresponding to primary and middle school, these input-related factors were cited as being most important in less than 1 per cent and 3½ per cent of households respectively. These results are supported by econometric analysis of the factors that impact on attendance at elementary school (Figure 3). Household affluence is found to have a larger marginal impact on attendance than the distance to school. Another finding is that children from disadvantaged groups, including Muslims as well as SCs and STs, are less likely to attend compared with children from other groups who, otherwise, share a similar background. With the Right to Free Education Act mandating that the full cost of elementary education, including tuition and other fees, at public and private aided schools will be met by the state, its introduction should have a positive impact on elementary level participation. To the extent that non-attendance is also explained by parents misperceiving the value of education, the compulsory aspect of the Act should also help increase participation.

In India, a major initiative which aims to improve nutrition standards, and raise enrolment and attendance is the Mid-Day Meal Scheme (MDMS). It provides a cooked lunch at school to children enrolled in elementary government schools and, in some states, replaced an earlier scheme that provided once-a-month take-home food rations. Over time, the scheme has expanded considerably, reaching almost 112 million students in 2008-09 (MHRD, 2010). Evaluations of the MDMS indicate that it has had a decisive impact in improving enrolment and attendance. Jayaraman *et al.* (2010) find that it lifted first-grade enrolment by around 17% and by a smaller but still significant margin in higher grades. Moreover, the delivery of nutritional supplements through a cooked meal under the MDMS



appears to have had a larger impact on school attendance than earlier schemes that provided a take-home ration. Afridi (2010) finds that switching the delivery mode to the school lunch improved attendance rates amongst first-grade girls by more than 12 percentage points.

FIGURE 3  
Factors influencing the probability of attending elementary school  
2007-08



Note: Columns represent marginal effects from a probit regression where the dependent variable is equal to one if a child aged between 6 and 14 years is currently attending school and zero if they are not attending. The regression sample includes 76 245 observations. All variables significant at 10% level or higher are reported, except for state dummy variables. Marginal effects for expenditure variables are based on dummy variables for monthly household expenditure quartiles. They indicate the marginal probability of children from households in higher expenditure quartiles compared to those in the lowest quartile. Analysis based on household data from National Sample Survey 64<sup>th</sup> Round.

Source: OECD calculations.

Although improving, health service provision is generally weak in India (Herd *et al.*, 2011a) and a number of indicators suggest that the average health status of Indian children remains poor. Illness is one factor that is likely to have a significant adverse impact on regular school attendance, with one survey reporting that over 40% of children were ill in the past three months and missed four or more consecutive days of school (Kingdon and Banerji, 2009). Moreover, the health status of Indian children has been found to be closely associated with long-term learning outcomes (Kingdon and Monk, 2010). Health interventions, including those focussed on deworming, have been found to be a cost-effective way to lift student attendance and improve health status more generally (Miguel and Kremer, 2004). By reducing the incidence of communicable health problems, such interventions can also generate positive spillovers throughout a community. Targeted programmes to reduce the incidence of preventable illnesses should, therefore, be considered as complements to the MDMS. More generally, international experience suggests

that conditional cash transfers can be an effective instrument for improving health and education outcomes of the poor but these are little used in India (Herd *et al.*, 2011b). Therefore, consideration should be given to implementing such schemes to help the government meet its goals of universal elementary, and then lower secondary, enrolment and completion.

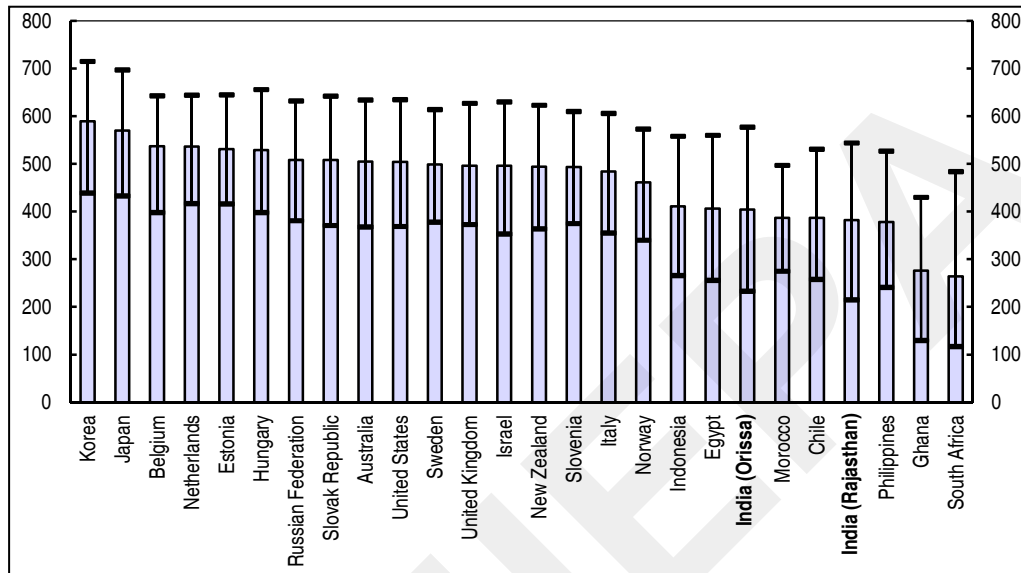
## School learning and higher education quality remain low

Notwithstanding the rapid gains in enrolment and attendance, average levels of educational attainment and basic skill acquisition, including reading and writing, remain low by international standards. Over time, the stock of educated workers will rise. However, cognitive skill formation, rather than education attainment *per se*, is what matters most for both the earning potential of individuals as well as their contribution to economic growth at the aggregate level (Hanushek and Woessmann, 2008). The extent to which increases in participation translate into improvements in skills and ultimately better social and economic outcomes will depend heavily on the quality of education provided. As participation rates continue to rise, the priority will need to shift to focus on learning outcomes of students.

Basic child literacy rates have steadily risen over the past two decades and now more than nine out of ten adolescents are deemed to be literate, according to NSS data. However, surveys of student learning suggest this improvement in headline literacy rates may mask problems with the depth of learning occurring in Indian schools. Testing of third-grade students undertaken by the National Council of Educational Research and Training shows that nationally, around one in five students failed a basic language test and one in three a basic mathematics test (NCERT, 2009). Average results varied considerably across states and in one state, Chhattisgarh, a majority of students failed both mathematics and readings tests. Results from other surveys confirm a worrying picture. A recent national survey of rural students shows that barely over one half of fifth-grade students demonstrated a sound ability to read a second grade text (ASER, 2011). Similarly, a survey of students in Uttar Pradesh and Madhya Pradesh found that a majority of fourth and fifth-grade students failed mathematics and literacy multiple choice tests designed for fourth graders (Goyal and Pandey, 2009).

While domestic learning surveys can track student performance and provide an overview of the state of learning, they generally lack international comparability. In India, there is a dearth of data based on an international assessment framework, making it difficult to benchmark the performance of Indian students. One exception is data compiled by Das and Zajonc (2010) based on tests of grade-nine students from two Indian states, Orissa and Rajasthan, in 2005 which use mathematics questions from the Trends in International Mathematics and Science Study. Overall, students from these Indian states performed poorly by international standards, ranking towards the bottom of a sample of 51 countries (Figure 4). In some India-wide domestic learning assessments, students in Orissa and Rajasthan score a little below the national average so that the average Indian student may perform better than indicated by this international comparison (ASER, 2011). However, as secondary level enrolments are lower in India than most of the other countries reported in the study, the relative standing of the average Indian child may be considerably worse.

FIGURE 4  
International secondary student test scores  
in 2005



Note: Selected countries shown from study. Columns indicate average test scores and the bars, the range of scores between the 5<sup>th</sup> and 95<sup>th</sup> percentiles.

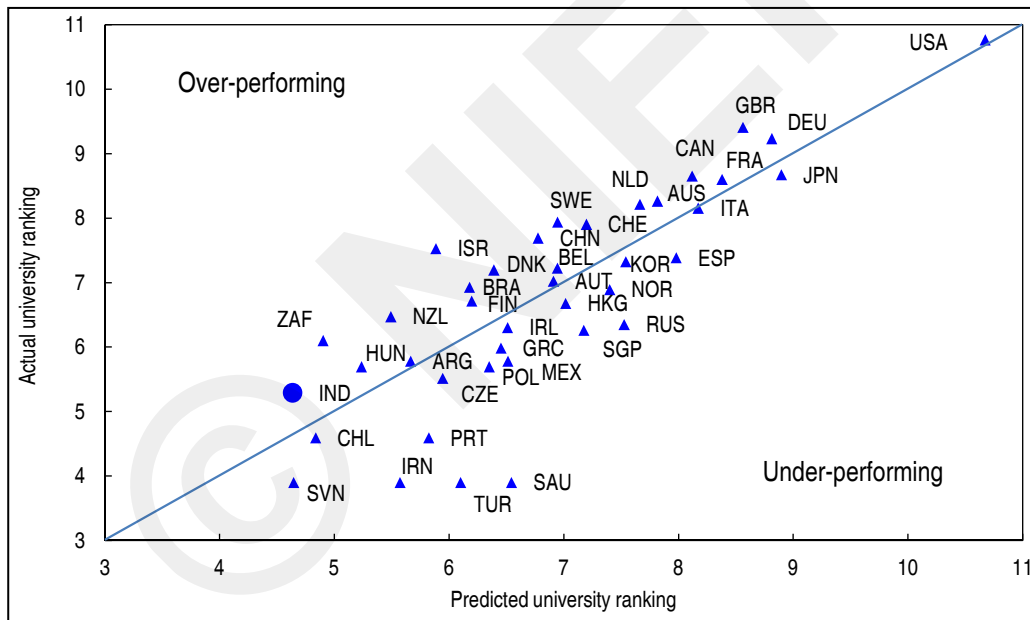
Source: Das and Zajonc (2010).

A second feature of these results is a wide dispersion for the two Indian states, as measured by the difference in test scores of the 5<sup>th</sup> and 95<sup>th</sup> percentiles. Of a sample of 47 countries for which the distribution of results is calculated, Orissa and Rajasthan show a higher dispersion than all but one country, South Africa. This is consistent with results from other surveys of student learning in India, which have also reported considerable dispersion (Goyal and Pandey, 2009). Further evaluations of student learning, using international assessment frameworks, will help policy-makers and other stakeholders gain a better understanding of how Indian students are progressing and the ways to improve the quality of education provision. To this end, the evaluation of secondary students in Himachal Pradesh and Tamil Nadu, currently underway in the context of the OECD Programme for International Student Assessment (PISA), will help to fill an important gap for two additional states. Given the size and diversity of India, commitments to additional testing using international frameworks should be considered.

The quality of VET and tertiary education in India is also highly variable. According to industry surveys, workers trained in the VET system are often ill-equipped and require significant on-the-job training (World Bank, 2008). Weaknesses in skill formation appear to be broad-based, with workers often lacking technical knowledge and having poor soft skills, including the inability to communicate effectively in the workplace. There is also evidence of a skills mismatch in technical and vocational areas, with graduates often employed in fields other than those in which they trained and employers reporting skill shortages. In the tertiary segment, there are a group of small elite institutions at the top end of the scale,

including the IITs and IIMs as well as other institutions of national importance that are internationally renowned for high-quality research and education, especially of post-graduate students. A small number of business schools, predominantly private, also score well in specialised international rankings of business schools.<sup>1</sup> Few Indian institutions feature in international university rankings and none currently features in the top 100 of the most commonly cited indexes. To some extent, this reflects India's relative level of economic development (Figure 5). An arguably more important indicator of the weakness in the higher education system is the seemingly poor employability of many Indian graduates. According to one industry association representing software and service sector firms, only 10 to 15% of business graduates and approximately one quarter of engineering graduates were judged to be employable (NASSCOM, 2009). Similarly, despite thousands of applicants taking a civil service entrance exam to fill just 30 specialised positions in economics and statistics, only 23 applicants were found to be suitable (Kapur, 2010).

FIGURE 5  
Predicted and actual world university rankings



Note: Actual university rankings are based on an aggregation of university rankings from the Academic Ranking of World Universities. The predicted university ranking is derived from a regression that includes controls for GDP per-capita measured in PPP terms and total population.

Source: ARWU, World Bank World Development Indicators and OECD calculations.

1. The Indian School of Business ranked twelfth in the 2010 Financial Times list of the top MBA programmes in the world <http://rankings.ft.com/businessschoolrankings/global-mba-rankings>.

## The rise of the private sector creates challenges and opportunities for improving access and quality

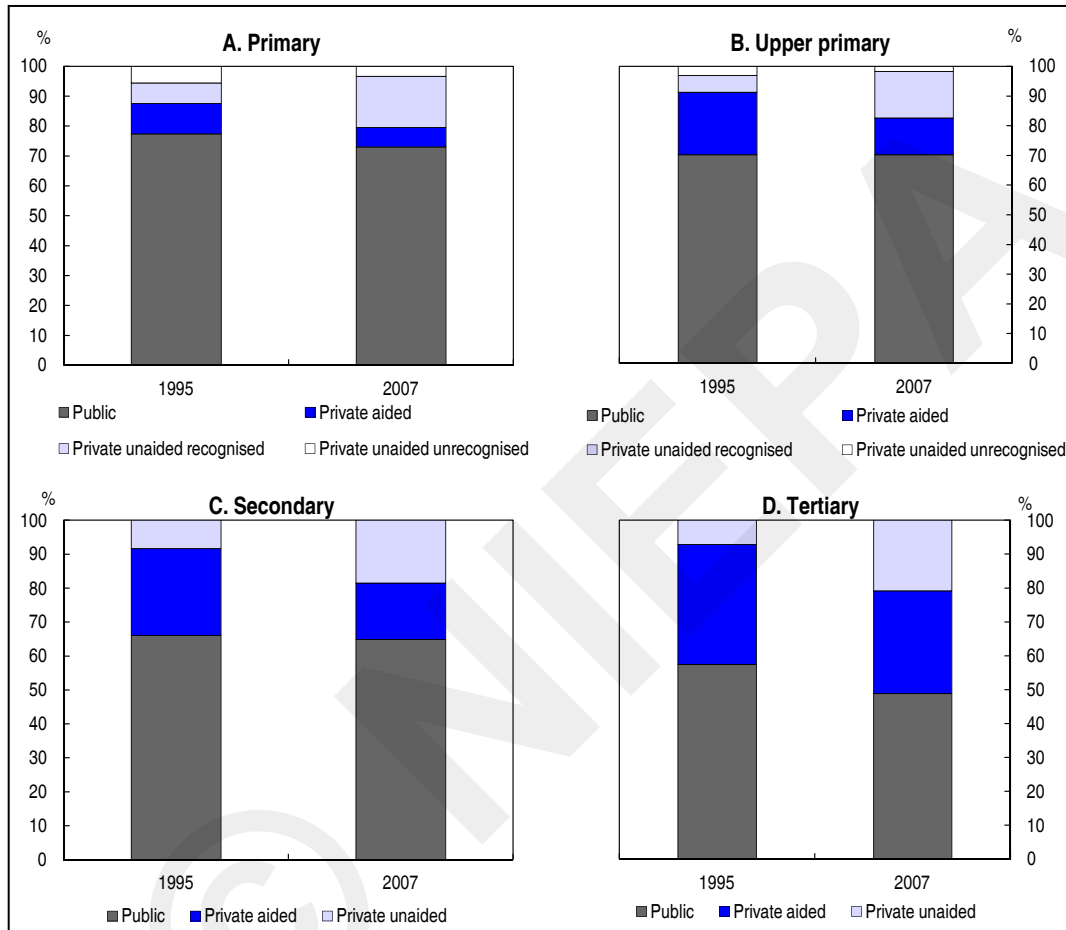
### Private enrolments are increasing at all levels

As in many other emerging countries fiscal constraints faced by governments in India, especially at the state and local level, have meant that the supply of public education, while expanding rapidly, has not kept up with demand. In higher education, this squeeze has been particularly acute as governments have shifted resources towards the elementary sector in order to meet priorities to lift participation at lower levels. Indeed, in real terms, per-student funding in higher education was lower in 2007-08 than in the mid-1990s. Some tuition fee differentiation is occurring in public institutions, allowing higher rates of cost recovery in professional and technical courses. However, fees generally remain low and institutions face intense political pressure not to raise costs for students.<sup>2</sup> These fiscal pressures, together with rising household incomes, have inevitably prompted a response from the private sector giving rise to a diverse range of government and private schools and higher education institutions (Box 2). The private sector segment now accounts for a rising share of enrolments and is more important in India than in most OECD and many emerging countries (Kapur and Crowley, 2008). Internationally, private sector involvement in education tends to be most heavily concentrated at the tertiary level (OECD, 2010a). The same is true in India but enrolment in private institutions has generally risen at all levels since the mid-1990s (Figure 6). Even at the primary level, private schools now account for around one quarter of all enrolments and more than half of all tertiary students attend private universities or colleges.

This expansion has occurred despite often ambivalent official attitudes towards the role of the private sector as well as legal barriers to private investment. Most notably, education continues to be reserved as a non-profit activity and private schools and higher education institutions must be registered as a charitable society or trust or non-profit company. Any surpluses generated by private institutions have to be reinvested in the same institution and foreign investors are prohibited from repatriating profits. In practice, investors circumvent these restrictions by creating subsidiary companies that supply the non-profit entity with land, infrastructure and other services in return for rental and other fees, which are then distributed to investors. Alternatively, schools and colleges that are not officially recognised simply exist in the informal sector of the economy. *De facto*, education has, thus, often become known for profit.

<sup>2</sup> Visva-Bharati University, a centrally-funded public university, recently attempted to increase tuition fees for undergraduate courses from around INR 216 (a little under \$5) to INR 2100 (approximately \$46) per year. Additional revenue was required to fund renovations following a rejection from the University Grants Commission for financial assistance. The announcement led to student strikes forcing university management to raise fees by only half the original target ("Visva-Bharati Bites Fee Bullet", *The Telegraph*, 18 June 2010; and "Visva Bharati Reduces Fee Hike By 50 Per Cent", *Indiaedunet*, 2 August 2010).

FIGURE 6  
Public and private enrolment shares

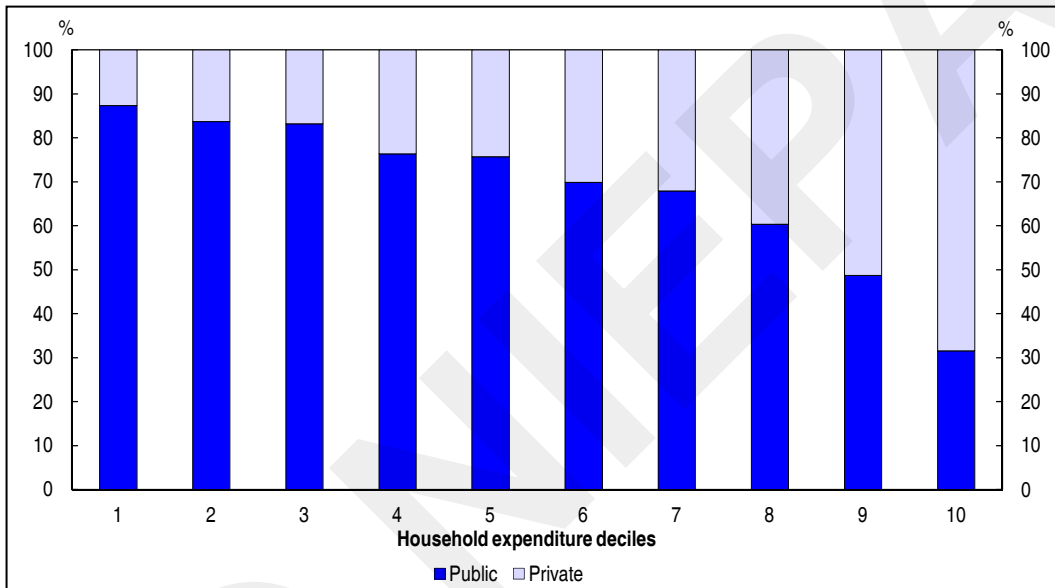


Source: NSSO, National Sample Surveys 52<sup>nd</sup> and 64<sup>th</sup> rounds.

Private schools are most common in urban areas and tend to attract students from higher socio-economic groups (Figure 7). However, spurred by demand from parents, large numbers of unaided private schools have also emerged in poor communities, as well as in rural areas, expanding private school access to relatively poor households. These schools are run on a low-cost model, allowing them to offer low tuition fees. For example, a survey of private schools in Delhi by Tooley and Dixon (2007) revealed that the median monthly tuition fee at unrecognised primary schools was a little over \$2, at the time about 5 per cent of the monthly wage for a breadwinner on the minimum wage. Operating costs of unaided private schools are often considerably lower than public schools owing to much lower teacher salaries, which account for the largest share of costs. As the gap between public and private school teacher salaries appears to have widened, the cost advantage of private schools has likely risen (Kingdon, 2010). In rural Uttar Pradesh, public teachers' salaries

were already estimated to be 12 times higher than the private sector equivalent prior to large increases for public teachers under the recent 6<sup>th</sup> Pay Commission. The strong demand from parents, even those of modest means, for private school education reflects dissatisfaction with public schools and a view that private schools offer higher-quality education. One specific reason cited by parents for sending their children to a private school is a perception that teachers are less absent and more committed in private schools (Desai *et al.*, 2008).

FIGURE 7  
Public and private school enrolment shares by household expenditure deciles



Source: NSSO, National Sample Survey 64<sup>th</sup> round.

A second reason is that private schools offer more instruction in English, which has been shown to raise earnings' potential. For example, Azam *et al.* (2010) find that in India, after controlling for levels of education and other personal characteristics, hourly wages for workers fluent in English are 34% higher than those who speak no English. Thus, they conclude that the economic return to English fluency is approximately equal to the return for finishing secondary school.

Perceptions concerning the superiority of private schools have been confirmed by a number of school surveys (Muralidharan and Kremer, 2007, Tooley and Dixon, 2007, Desai *et al.*, 2008 and Goyal and Pandey, 2009). These indicate that the provision of essential facilities at private schools, such as drinking water, toilets and blackboards is, in general, no worse, and sometimes better, than in public schools. Teacher attendance and teaching activity is generally found to be higher in private schools, despite the higher pay and better teaching credentials of public school teachers. Raw test scores also tend to be higher in private schools. Whether this reflects student and/or parent characteristics, which might influence test scores as well as the choice of schools, or the more effective delivery of

education has been the subject of several empirical studies (Goyal, 2009, Wu *et al.*, 2009, ASER, 2010 and French and Kingdon, 2010). Generally, the results show that, after controlling for student and family factors and teaching inputs, scores in private schools are higher, indicating that private schools may indeed offer superior quality education. However, this advantage does not always hold and varies in magnitude across studies. On average, it may, therefore, be relatively small.

In higher education, in India, as in other countries, the expansion of private education has been particularly strong in disciplines where start-up costs are relatively low, returns to graduates are high and the supply response from the public sector sluggish (Levy, 2008). Degree-conferring private colleges now dominate in a number of professional disciplines, including engineering, information technology, management and some allied health disciplines such as pharmacy. In VET, growth in private industrial training centres has been much faster than public-sector industrial training institutes. As this expansion has largely been driven by market forces, it has enabled the supply of tertiary education providers to become more closely aligned with the demands of the labour market. For vocationally-oriented degrees, in particular, students typically opt for the private sector if they are unable to secure a place at a public university or college. Hence, private providers have acted to absorb excess demand and have expanded access to those who can afford to pay in areas where labour market prospects are good. Private unaided institutions typically receive no financial support from the government and rely heavily on tuition fees as the main source of revenue. Fees are guided by state committees and operate on a multi-tier basis whereby a minimum percentage of places are required to be made available to disadvantaged students at a lower rate and the remaining places at a capped rate. Committees tend to set fees based on input costs whilst allowing “reasonable” surpluses, despite the official non-profit policy. As disadvantaged students are cross-subsided, fees for students required to pay the top rate exceed costs and are typically high relative to average household incomes (Carnoy *et al.*, 2010).

### **Ensuring widespread benefits requires appropriate government intervention**

The rapid expansion in enrolments at lower levels, together with rising household incomes and India’s relatively youthful demographic distribution, imply that demand for education will continue to rise strongly over the medium term at all levels, but especially at secondary and tertiary levels. Indeed, if the government is successful in reaching its enrolment rate targets in 2017, the number of secondary students will rise by over 10 million, a more than 20% increase, and the number of tertiary students by over 12 million, more than double the current figure. This increase in demand will require a continued rapid expansion in the number of schools, colleges and universities. A significant portion of this growth is likely to be provided privately given both the desire of some households to choose a private education and their increasing ability to pay, as well as limits on the ability of governments to expand public provision at an adequate pace.

In order for the government’s objective of a continued rapid rise in education participation to be met in an environment where private education is expanding, policies need to be framed to ensure access across all segments of the population. As noted, although low-cost private schools provide alternatives to the public system for relatively low income households, private schools often cater to more affluent students. Moreover, those at the



bottom of the income distribution cannot afford to pay even low fees and will remain dependant on government support (Harma, 2009). One of the most significant provisions of the Right to Free Education Act is a requirement that all private schools allocate at least 25% of places in first grade to government-funded students from disadvantaged backgrounds and ensure continued access on the same basis to these students until the completion of eighth grade. By allocating public funds to students rather than schools, this provision has the hallmark of a voucher system which could improve choice and learning outcomes for a large number of disadvantaged students. Ultimately, however, the impact of the private school quota provision will depend on how state governments implement this and other provisions in the Act.<sup>3</sup>

The reimbursements to private schools will be set at the lower of the equivalent cost incurred at a public school or the full cost incurred by the host private school. If private schools continue to operate on a lower-cost basis than public schools, as is the norm now, governments stand to reap savings as students move to private schools. Whether private schools are fully reimbursed will depend on their own cost structure. Schools, with operating costs the same or lower than public schools, will be covered while those with higher operating costs will face funding gaps that will ultimately be borne by the families of fee-paying students. Since the higher-cost private schools cater to students from relatively affluent households, this system of funding will result in wealthier households cross-subsiding poorer students. However, other provisions in the Act require adherence to a range of minimum standards concerning school infrastructure (including the provision of playgrounds) and teacher salaries, which may raise costs for all private schools considerably. Schools catering to poorer households and those in built-up urban areas, including slums, will be most adversely affected and potentially many could be forced to close, reducing the supply of schools. Therefore, some of the requirements in the Right to Free Education Act need to be implemented flexibly.

Government-funded places at private schools will be allocated by a lottery open to eligible students and the extent to which disadvantaged students benefit will depend heavily on the precise formulation of eligibility criteria. So far the indications are that they will focus on minority group status and household income. The private schools provision will likely lead to an increased mixing of students from different socio-economic backgrounds, particularly where students are granted access to elite private schools. Ultimately, greater classroom diversity should be beneficial. However, it may present additional challenges in ensuring that the learning environment can effectively cater to all students, especially publicly-funded students who are susceptible to being at a disadvantage given the importance of household factors in shaping the early development of skills. To maximise the benefit from switching to a private school, the government could consider a base-plus formula for funding whereby the reimbursement is, at least, partly linked to the performance of students, who take part in the scheme.

In higher education, the expansion of privately-financed institutions has led to a significant shift in cost-sharing towards households. From an efficiency and equity

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<sup>3</sup>. State governments are finalising implementation details. The legal validity of the Right to Free Education Act has been challenged by a private schools association on the grounds that it impinged on their rights to admit students of their choice ("Pvt. School Association Challenges Validity of RTE Act in SC", *Times of India*, 23 March 2010).

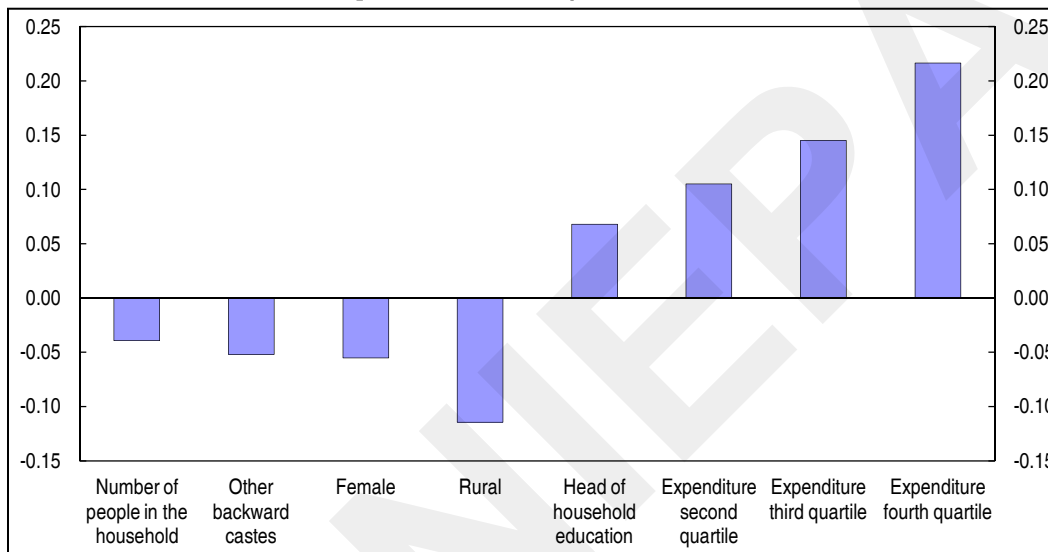
perspective, this might be justified on the grounds that returns to higher education, in particular, are skewed towards private agents (Kijima, 2006). However, high upfront fees present a challenge for ensuring access to credit-constrained individuals, of which there are many in India partly due to low levels of financial development (Herd *et al.*, 2011c). The government has adopted a two-pronged approach to promote access to private higher education. First, as noted above, it has required private providers to adopt a multi-tier pricing arrangement with reduced fees for students from disadvantaged backgrounds. Second, it has promoted a loans scheme, which is based on a government-designed model and operates through the commercial banking sector.

Under the loans scheme, all students who have gained admission to a recognised institution and course, as designated under official guidelines, are eligible to apply. The loans cover general and specialised undergraduate diplomas and degrees as well as post-graduate qualifications. However, access to loans for most VET courses is less assured and subject to greater discretion by the banks. All students are assessed by individual banks against a range of creditworthiness criteria. The terms of loans are not based on strict commercial parameters but are less favourable to students than government loan schemes operating in a number of countries. Interest rates are set at the benchmark prime lending rate, which normally fluctuates between 10 and 15%, with a small penalty for larger loans, while the normal repayment period is between five and seven years. Loans of up to INR 400 000 (approximately \$8 790) do not require collateral but do require a guarantor. A study of international student loan schemes by Shen and Ziderman (2009) confirms that the implicit subsidy of student loans in India, as reflected in the difference between what students receive and are required to repay, is relatively small. It was also found that the recovery ratio was relatively low, suggesting high default rates and/or inefficiencies in the management of loan portfolios.

Empirical analysis using 2007-08 NSS household data indicates that students from some officially designated minority groups (Scheduled Castes and Tribes), are equally likely to progress to tertiary studies as their peers with similar socio-economic backgrounds, although students from other disadvantaged groups (other backward castes) are marginally less likely (Figure 8). However, for all students, participation in higher education is strongly correlated with household affluence. Students from households in the top expenditure quartile are around 22 percentage points more likely to attend than those in the bottom quartile. Together, these results suggest that policies have been effective in promoting access amongst some minority groups but that credit constraints may be imposing barriers to access for all students. Given the more commercial orientation of student loans in India, the requirement of a guarantor likely prevents poorer students from obtaining finance. The government is considering increasing the implicit subsidy in loans by capping the applicable interest rate below market rates, with lower rates for students from low-income households, as well as providing loan guarantees. International evidence suggests that where tuition fees are deferred through a student loan scheme, participation is relatively insensitive to increases in tuition fees, indicating that the assurance of funding rather than the extent of subsidisation is most important for promoting access (Marcucci and Johnstone, 2009). The priority, for the government, therefore, should be to focus on removing barriers to finance, rather than lowering its cost. In this vein, the government could consider establishing a government loans system as an alternative to the existing scheme for some or selected students, including those seeking VET qualifications. Loan repayments could be made

income-contingent, especially for qualifications that would likely lead to employment in the formal sector, including undergraduate and post-graduate degrees. A government loans system could expand access and provide greater flexibility to set eligibility criteria and the terms of repayment in order to meet access and cost-sharing objectives (OECD, 2007).

**FIGURE 8**  
**Factors influencing the probability of tertiary attendance conditional on the completion of secondary school 2007-08**



Note: Columns represent marginal effects from a probit regression where the dependent variable is equal to one if a person is currently attending a tertiary course and zero if they have completed secondary but are not pursuing tertiary studies. The regression sample includes 6 535 observations. All variables significant at the 10% level or higher are reported, except for state dummy variables. Dummy variables for Scheduled Castes, Tribes and Muslims were found to be insignificant. Marginal effects for expenditure variables are based on dummy variables for monthly household expenditure quartiles. They indicate the marginal probability of attending tertiary studies for members of a household in higher expenditure quartiles compared to those in the lowest quartile. Analysis based on household data from National Sample Survey 64<sup>th</sup> Round.

Source: OECD calculations.

## Improving school performance requires reforms as well as resources

### Teacher accountability and incentives need to be improved

Teachers are critical in shaping learning outcomes, and efforts to lift the overall quality of education need to consider ways to improve teacher effectiveness. In India, high rates of teacher absence and low levels of effort have long been recognised as having a major

deleterious impact on school learning (PROBE, 1999). Although teacher absence rates seem to be declining, they remain relatively high (ASER, 2011). As noted above, there appear to be significant differences in teacher attendance and observable efforts between public and private schools, which may largely reflect differences in employment arrangements. Whereas regular public school teachers are normally employed by state governments on permanent contracts, teachers in private schools are employed at the school level on fixed-term contracts. Teachers in private schools, therefore, face a stronger accountability mechanism: indeed, in a survey of 3 000 public schools, there was only one instance of a head teacher dismissing a teacher for repeated absence, whereas in a sample of around 600 private schools, 35 head teachers had, at some point, dismissed a teacher for repeated absence (Muralidharan and Kremer, 2007). This difference in incentives may be compounded by the fact that private school teachers are more likely to hail from the local community and, hence, have a greater stake in ensuring positive outcomes for students.

Evidence on the impact of contract or “para-teachers”, which have been recruited in large numbers by some state governments to fill shortfalls, is consistent with evidence on the effectiveness of private school teachers and, further, reinforces the importance of effective accountability mechanisms. Para-teachers are recruited locally, normally on a fixed-term contract, to work in public schools and, typically, have lower credentials, at least in terms of teacher qualifications (Pandey, 2006). Part of the rationale for recruiting para-teachers was to assist regular teachers but in practice, para-teachers often perform the same function as regular teachers, despite being paid a fraction of regular teacher salaries. Atherton and Kingdon (2010) report that contract teachers are more effective than regular teachers in Uttar Pradesh and at least as effective in Bihar.

Moving away from permanent contracts and increasing monitoring for public school teachers would likely have a significant positive impact on teacher effort and, ultimately, the quality of education. Politically, however, this is likely to be very difficult. At the very least, mechanisms for dismissal due to repeated absence without sound reasons or unsatisfactory performance must be strengthened. For new teachers, longer probation periods involving progressively longer fixed-term contracts, subject to continued strong performance, could also be implemented. Para-teachers could also be offered the same arrangement (and salaries), subject to a sufficient upgrading of qualifications and a proven track record, thereby providing a way out of the dual labour market in the public system which does not seem to be sustainable.<sup>4</sup> A long-running policy experiment in India has found that monitoring teacher attendance, whilst also providing financial rewards for regular attendance and penalties for poor attendance, can lead to significant improvements in both attendance and student learning (Duflo *et al.*, 2010). Given the already considerable advantage of public school salaries compared with private schools, offering additional financial rewards for regular attendance is difficult to justify. However, better attendance monitoring, coupled with financial incentives for strong performance and penalties for poor performance, seems to be advisable.

Accountability can also be strengthened by increasing community involvement in school management and providing beneficiaries, including parents and other local members of the

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4. In late 2009, 142 000 para-teachers in Bihar, where many para-teachers have been recruited, went on strike demanding higher wages and better conditions (“Half-baked Instructors”, *Hindustan Times*, 30 December 2009).

community, authority to play a role in selecting teachers as well as an appropriate mandate to punish or reward good performance. Such beneficiaries may have a considerable informational advantage over remotely located government officials in monitoring teacher performance and understanding the needs of local students. Under the *Sarva Shiksha Abhiyan* initiative, the government promoted greater community involvement through the formation of school management committees (SMC), comprising parents, head teachers and village leaders. These bodies were empowered to monitor teacher performance, report back to government officials and request additional resources. The Right to Free Education Act builds on this by requiring all schools to have an SMC. Awareness of the functions of SMCs in India appears to vary widely and, in some cases, is very poor (Pandey *et al.*, 2008). Furthermore, policy experiments indicate that providing more information on the functions of SMCs as well as training may not be a panacea for addressing these problems (Banerjee *et al.*, 2010). This may reflect disillusionment linked to the limited remit of SMCs and evidence from other emerging economies indicates that empowering SMCs to make important decisions such as hiring teachers can lead to positive outcomes (Duflo *et al.*, 2007). Increasing the authority of SMCs should, therefore, be considered.

Ensuring effective tracking of student performance is also central to lifting the performance of teachers and the system more broadly. Diagnostic testing can help teacher effectiveness by identifying weaknesses in student learning, thereby enabling teachers to better focus their efforts. In addition, diagnostic information can help to improve teacher motivation through improved goal orientation and by providing evidence on student improvement. In some parts of India, grade-ten exams, which were judged by the authorities to be creating undue pressure on students, have been scrapped and replaced with a system of continual and comprehensive assessment, which is also increasingly being adopted at lower levels. These reforms have the potential to create a better atmosphere for learning, but it is essential that methods of assessment provide accurate information on learning progress to teachers, school administrators and, above all, students and parents.

The results from a policy experiment in India provide evidence on the effectiveness of low-stakes testing and performance pay (Muralidharan and Sundararaman 2010a, 2011). The impact of providing teachers with diagnostic information on students, designed to help teachers improve learning outcomes, and performance pay for teachers, linked to student test scores, was assessed. In schools where diagnostic information alone was provided, no change in students test scores were observed, including amongst weaker and stronger students. In contrast, in schools where performance pay was introduced alongside the diagnostic information, student test scores improved significantly. Hence, improving diagnostic feedback to teachers may help, but only if accompanied by appropriate incentives to improve teacher effort. Reforms to assessment procedures may, therefore, need to be complemented with other changes to ensure their effectiveness.

### **Increasing resources can help improve instructional quality**

Despite the strong rise in recruitment, the increase in the number of teachers in primary schools has failed to keep pace with the growth of the number of students, with the average student-teacher ratio rising from 43 in 2000-01 to 47 in 2007-08. In the coming years, the government intends to reduce it sharply, with the Right to Free Education Act stipulating a maximum student-teacher ratio of 30:1 in primary schools. The impact of class size on

learning is a subject of keen debate, but recent international evidence points to a weak negative correlation between class size and student learning achievement (Hanushek and Woessmann, 2010). There is also evidence that the effects of class size vary across countries, with stronger adverse effects in less advanced economies where classes are generally larger and teachers less well trained (Altinok and Kingdon, 2009). Additional teaching resources could also contribute to building a more systematic and effective remedial learning system, which is needed in both government and private schools (Banerji and Mukherjee, 2008). The need is particularly acute given the continued push to reduce the number of out-of-school-children, which has led to a rise in the number of over-age children, particularly at lower levels of schooling.

A related issue important in the Indian context concerns the extent of multi-grading, where one teacher is required to teach two or more classes simultaneously. In India, average school sizes are small, reflecting low levels of urbanisation as well as long-standing policies of prioritising close access to elementary schools across the country (Kochar, 2007). Figures from the DISE database indicate that on average, elementary schools employ 4½ teachers with around one-quarter of schools having less than three teachers and one in ten only one teacher (NUEPA, 2010). Given chronic problems of poor attendance, the effective number of teachers is likely to be considerably lower. Therefore, many schools are insufficiently staffed to ensure at least one teacher for each grade, necessitating multi-grade classes. The national ASER Survey confirms that the incidence of multi-grading is high with second grade students sitting with children from other grades in over half of all schools surveyed (ASER, 2011). Other surveys indicate that in Uttar Pradesh and Bihar, multi-grade classes are the norm and also that the incidence of multi-grade classes is unstable (Kingdon and Banerji, 2009). On repeated visits, around 49 per cent of children were always sitting in classes that were multi-grade, a further 44 per cent were sitting in either mono- or multi-grade classes and only seven per cent always in a mono-grade class. International comparisons confirm that the incidence of multi-grading is high in India compared to both advanced and other emerging economies (Mulkeen and Higgins, 2009).

Multi-grading can offer advantages for cognitive and social development by exposing students to more advanced material than would normally be the case in mono-grade classes and encouraging self-directed learning and increased learning and interaction with children of different ages (Little, 2006). However, on the downside, multi-grading can effectively reduce instructional time for individual students, particularly if teachers adopt a segmented approach to teaching where instructional time is effectively divided across different grade curricula. There are several features of the Indian context which suggests multi-grading is likely to exert a deleterious effect on learning and results from empirical studies support this conjecture (Jacob *et al.*, 2008 and Goyal, 2009). First, Indian school curricula tend to be text-book-based and grade-specific. This makes it more difficult for teachers to adopt inclusive, flexible methods in a multi-grade classroom and increases the likelihood of reductions in instructional time for any given grade. Furthermore, the significant proportion of very small schools means that many classes cover more than two grades, exacerbating this reduction in grade-specific instruction. Second, generally poor quality teacher training, with inadequate attention to the specific challenges of multi-grade teaching, are likely to mean many teachers are ill-equipped for the challenges of multi-grade classes. Third, although the availability of teaching-aids is improving, Indian schools are still generally not well resourced, especially for grade-specific materials, reducing the extent to which teacher time can be substituted

with other inputs. Moreover, some of the beneficial effects associated with peer learning are likely to be diluted on account of the relatively homogenous student populations in small rural schools (Kochar, 2007).

Evaluations of programmes in India indicate that additional teaching resources can have a significant positive impact. In a recent experiment in Andhra Pradesh, an additional contract teacher was allocated to a sample of government schools and test scores of students monitored over a two-year period and then compared to students in similar schools that did not receive an additional teacher (Muralidharan and Sundaraman, 2010b). At the end of the trial, it was found that scores at the schools benefitting from the additional teacher were on average 0.13 to 0.15 standard deviations higher. Improvements were larger amongst first-grade students and in more remote schools, where students are presumably more disadvantaged. A separate study examined the impact of a remedial education programme in Gujarat and Maharashtra which hired young local women with only secondary school qualifications to assist struggling students. The scheme was found to lift scores by around 0.28 standard deviations in the second year (Banerjee *et al.*, 2007). Neither of these schemes made use of regular teachers and the instructors were paid a fraction of regular teacher salaries. This highlights the cost effective gains that can be achieved from employing non-specialist teachers. As governments seek to reduce student-teacher ratios, it is important that they consider the cost-effectiveness of achieving this objective with regular teachers against recruiting more remedial and contract teachers.

### **Teacher development pathways need to be made more accessible and more effective**

While greater accountability would improve the effectiveness of teaching, indicators of poor skill development amongst teachers across the system suggest that the framework for teacher development needs to be strengthened. For example, one survey found that less than half of teachers could provide the correct definition of difficult words and meaningfully summarise fourth-grade text, while four out of five teachers admitted to having problems with their students' math queries (Kingdon and Banerji, 2009). The importance of better teacher education is further supported by empirical evidence from India indicating that better-qualified teachers are more effective, conditional on the type of employment contract (Atherton and Kingdon, 2010). The Indian classroom is a challenging environment for even well-qualified teachers given large class sizes and the high proportion of first-generation learners. NSS figures indicate that in 2007-08, over half of all mothers of students were illiterate, suggesting that many students may not be receiving much additional academic assistance outside the formal education system. The diversity of students requires tailored interventions even when resources are lacking. Under the Right to Free Education Act, the government is aiming to standardise the age profile for each school grade at the elementary level and has allocated funding for remedial education to accelerate the progression between grades for late starters. Over time, this should result in greater age-grade standardisation, but multi-grading and a high proportion of first generation learners is likely to remain a reality in a large number of small schools. Many teachers are ill-prepared for the challenges, with 44 per cent of teachers in India lacking any tertiary qualifications (Mehta, 2010). This is low not only by OECD standards, where all but a very small minority hold some kind of

tertiary qualification, but also emerging economies such as Brazil and Malaysia, where 91 per cent and 99 per cent of teachers respectively hold tertiary qualifications (OECD, 2009).

The formal teacher education system, which provides pre-service training, faces a number of weaknesses that reflect broader problems with the tertiary education system (see below). A central body, the National Council for Teacher Education, has authority for setting national standards for teacher education but enforcement varies widely across states and in most states, there is a shortage of training institutions (Rajya Sabha Secretariat, 2010). A recent survey highlighted a number of specific deficiencies in teacher training institutions (World Bank, 2009). Colleges are often poorly resourced and faculty tend to work in isolation and undertake very little research while the approach to training lacks innovation and students appear to show little initiative. A further problem is that curricula are often outdated and faculty lack appropriate qualifications and experience in the classroom to be effective teacher trainers. Wide-ranging reforms of the higher education sector, focussed on lifting quality, should go a considerable way in improving the quality of pre-service teacher training.

However, an effective professional development pathway for teachers must also incorporate access to continual training, which focuses on learning activities pertinent to the classroom (OECD, 2005). The need for effective in-service training is, particularly, strong in India given the rapid expansion of the teaching workforce which has inevitably led to the recruitment of less qualified and experienced teachers. Under the *Sarva Shiksha Abhiyan* initiative, funding has been allocated to provide in-service training of upto 20 days for all elementary teachers, as well as separate training for untrained teachers and an induction scheme for new recruits. However, only 35 per cent of teachers in recognised schools reported that they had undertaken any in-service training in 2008-09 (NUEPA, 2010). Moreover, while welcoming the opportunity to undertake such training, teachers tend to find that techniques are not always suited to the realities of their classrooms, particularly with respect to over-crowding and multi-grading (Mooij, 2008). There is a need for governments to closely monitor, evaluate and alter current in-service programmes, as required, to ensure their effectiveness and access for all teachers, including those in secondary schools. In addition, over the medium term, induction programmes should be expanded to incorporate a formal mentoring system, as exists in many countries, to help ease the adjustment to the classroom for junior teachers.

## **Lifting vocational and tertiary education quality requires wide-ranging reforms**

### **More effective regulation is needed**

The regulatory regime for vocational and higher education in India is complex and unwieldy. The large number of regulatory stakeholders has given rise to overlapping responsibilities, creating uncertainty and administrative burdens. Both the central and state governments have direct responsibilities for public universities and colleges, which are managed through their education and other ministries. The University Grants Commission (UGC), a central government statutory authority, has responsibility for nationwide standards' setting and coordination for universities and non-specialised colleges, while the



All India Council for Technical Education (AICTE) performs similar functions for technical colleges. In addition, several professional councils, some of which operate at both the central and state levels, have authority for specific disciplines, including a number of vocational fields and medicine. Universities also play a direct oversight role. The very large number of public and private colleges are governed through a system of university affiliation, whereby universities set the curriculum that colleges are required to adopt and have responsibility for setting and administering examinations. As all colleges offering degree level courses are required to be affiliated with universities, they are indirectly subject to the same government regulations covering universities. In the VET system, standards are, for the most part, regulated by a central authority, the National Council for Vocational Training (NCVT), which operates under the auspices of the Ministry of Labour and Employment, as well as state-level counterparts. There would be merit in making the NCVT an autonomous authority so that accountability for enforcing standards is more clearly defined.

The regulatory system is also highly prescriptive. In tertiary education, over the years the main standard-setting agencies, notably the UGC and AICTE, have issued a number of regulations and rules covering a wide range of academic standards that all recognised institutions are required to meet (Agarwal, 2009). These include minimum qualifications for academic staff, requirements for staff promotion and workloads and standards of instruction. Such regulations have diluted accountability and promoted standardisation, thereby discouraging innovation and diversity. One manifestation of this is that curricula are often outdated and difficult to reform, even in the top universities. For example, in 2008, the syllabus for mathematics at Delhi University, one of the most prestigious universities in the country, was updated for the first time in over 18 years, despite the opposition of faculty members (Indiresan, 2009). At the same time, the regulatory framework has had difficulty coping with the challenge of maintaining adherence to such rigorous norms in an environment where the number of institutions has expanded rapidly. Political interference and instances of corruption, especially concerning entry and changes in institutional status, have also been a problem (Kapur and Mehta, 2008).

Regulations governing the entry of new providers also need be reformed to avoid discrimination against the entry of larger institutions. A feature of the Indian higher education system is the very large number of small affiliated colleges, many of which have only a few hundred students. Given that the provision of higher education is often characterised by economies of scale and scope, this may be sub-optimal from the point of view of system-wide economic efficiency (Green and Johnes, 2009). A fragmented system such as the one in India may also impose higher oversight costs for regulators, given the need to evaluate and monitor a larger number of providers. As it stands, the regulatory framework discriminates against larger providers owing to higher entry barriers. Whereas an affiliated college can be established by approval of the relevant regulator, universities require an Act of the Parliament or State Legislature, a far more cumbersome process. This exacerbates high non-regulatory barriers for universities. A college can be established with little capital using rented office space and employing a handful of staff members, some of whom may be hired on a temporary basis. In contrast, universities require major investments in infrastructure and face the added burden of acquiring land, which is particularly difficult in urban areas. Moving towards a process where the entry of a university can be authorised through a regulatory, rather than a parliamentary instrument, could help shape a more efficient higher education system over the longer term. At the same

time, governments could consider the scope for merging smaller public colleges, particularly in large urban and other well-served areas.

There is a need for greater institutional autonomy, which has been shown to be closely associated with university performance internationally – in fact, many world class universities operate with few regulatory constraints (Aghion *et al.*, 2010). Within India, it is revealing that some of the strongest higher education institutions, including the IITs and IIMs, operate within a much lighter regulatory framework. Reports from the National Knowledge Commission and, more recently, the Yash Pal Committee recommended that the government replace the existing multi-agency structure with a single national regulator. Legislation is presently before Parliament to create such an authority, the National Commission for Higher Education and Research (NCHER), which would merge the function of the UGC, AICTE and other associated authorities. While reducing regulatory overlap, it is unclear that the establishment of the NCHER will address deeper issues concerning the need to reduce stifling regulation. The intention is that the NCHER will operate at a greater distance from government and adopt a less prescriptive approach but changes to limit the scope of regulation have not been legislated. Whether a different approach emerges under a new institutional arrangement remains to be seen.

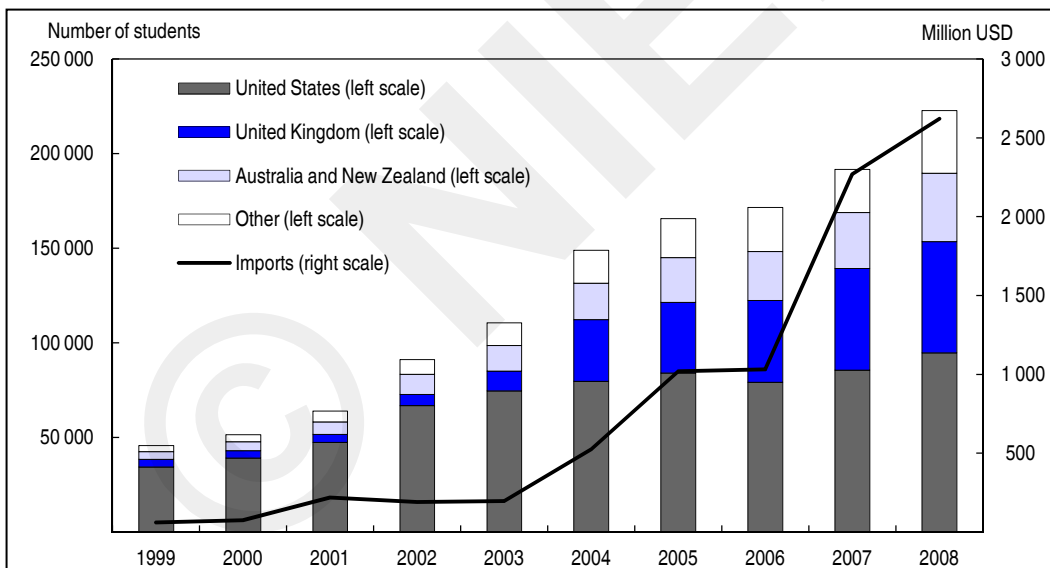
The intention of the college affiliation system was to ensure that larger, better resourced universities could support the development of small, fledging institutions while ensuring common teaching and assessment standards; in theory, universities are required to provide affiliated colleges with assistance across a broad spectrum. In practice, with the rapid expansion of higher education, some universities now have up to 800 affiliated colleges, some of which operate at a considerable physical distance (UGC, 2011). Providing adequate support to effectively foster the development of all weaker colleges, therefore, poses a problem which will only worsen given the regulatory bias towards the entry of colleges. At the same time, the system is holding back those colleges which have the capacity to stand alone and push ahead with innovative courses and management practices. Recognising this problem, the government has granted some colleges a special autonomous status, which provides them with greater freedom to set their own syllabi and conduct examinations. However, this process is evolving slowly: only 218 out of tens of thousands of colleges are currently classified by the UGC as autonomous, concentrated in a small number of states. Autonomous status needs to be offered to a larger number of stronger colleges, selected as those which scored well under national accreditation processes. Going further, autonomous colleges, with a proven track record, need to be given the opportunity to be upgraded to university status, thereby moving to the maximum level of autonomy allowed under the regulatory system.

Lack of institutional autonomy is a particularly severe constraint on the development of a more dynamic and effective VET system. Government authorities have tended to adopt a hands-on approach to the running of industrial training institutes, which represent a major component of the VET system, leaving little scope or incentive for management to introduce innovations in curricula or course delivery (Majumdar, 2008). In this segment, institutional flexibility and close collaboration with industry is particularly important for ensuring quality and relevance (OECD, 2010b). This includes the need for effective “buy-in” from the private sector. Under the government’s recent Centres for Excellence initiative, it is seeking to devolve some authority and encourage stronger linkages to the workplace through management committees that comprise industry representatives. Critically, however, the

government has retained controls over curricula, which is likely to slow efforts to modernise course offerings. In order to make the VET system more demand-driven, and to lift quality more generally, the government should broaden the powers of management committees.

The government is also in the process of devising a regulatory structure for foreign education providers. Currently, 100 per cent FDI in education is permitted but there is no framework for recognising foreign providers, effectively preventing their entry. The aim of reforms in this area is to entice high-quality universities to offer their own degrees in India. In doing so, the government aims to benefit from the trend of foreign universities opening campuses abroad. Demand for foreign qualifications has been growing strongly amongst Indian students and India now ranks second only to China as a source of foreign students (Figure 9). The vast majority of these choose to study in English-speaking OECD countries, with well developed markets for international education and high tuition fees, matching or exceeding the highest fees levied by private institutions in India (OECD, 2010a). Consequently, Indian imports of education services have been rising rapidly and amounted to \$2.3 billion in 2009-10.

FIGURE 9  
Indian students studying abroad and education service imports



Note: Data presented on a calendar year basis. Imports of education services can take any of four modes as defined under the General Agreement on Trade in Services (GATS). Data on the value of each mode of education trade is unavailable but, given the number of students travelling abroad and cost of fees charged to foreign students in advanced countries, it is likely that trade under mode 2, consumption abroad, represents by far the most important category.

Source: OECD and RBI.

Under the proposed reforms, guidelines on the mode of entry for foreign universities are clear and regulatory barriers appear to be low. However, foreign providers are required to be non-profit institutions and must maintain a minimum INR 500 million (approximately

\$11 million) capital fund. Existing restrictions on the repatriation of capital have been maintained. Moreover, it is unclear how existing rules and regulations concerning the operation of domestic higher education institutions will be applied, in particular whether tuition fees would be subject to regulation. Together, these restrictions and potential ambiguities, as well as the challenges that domestic institutions face in finding suitable land for development and high-quality faculty, are likely to discourage foreign institutions. This is particularly so for the top calibre universities which are often self-regulating in their home countries and have been offered significant incentives to establish branch campuses in other countries (Box 3). Even if there is some foreign entry into the market, it is unlikely that this will dramatically boost capacity or stem the outflow of students. There are many reasons why students choose to study abroad beyond the motivation to earn a foreign qualification, including the desire to gain international experience (IOM, 2008). A further motive, which appears to be strong in the case of Indian students, is to migrate (Baruch *et al.*, 2007). The reforms also fail to address a regulatory gap concerning the treatment of partnerships between Indian and foreign institutions, including joint programmes. A survey of these types of collaborations indicates that several Indian institutions offer foreign degrees in India, often outside the regulatory and quality assurance framework (UKIERI, 2008). Given the demand for foreign qualifications and the cost-effectiveness of this mode of delivery, it is likely that these types of arrangements will proliferate; the government, thus, needs to ensure effective oversight.

### **Stronger quality assurance and better incentives are needed to boost performance**

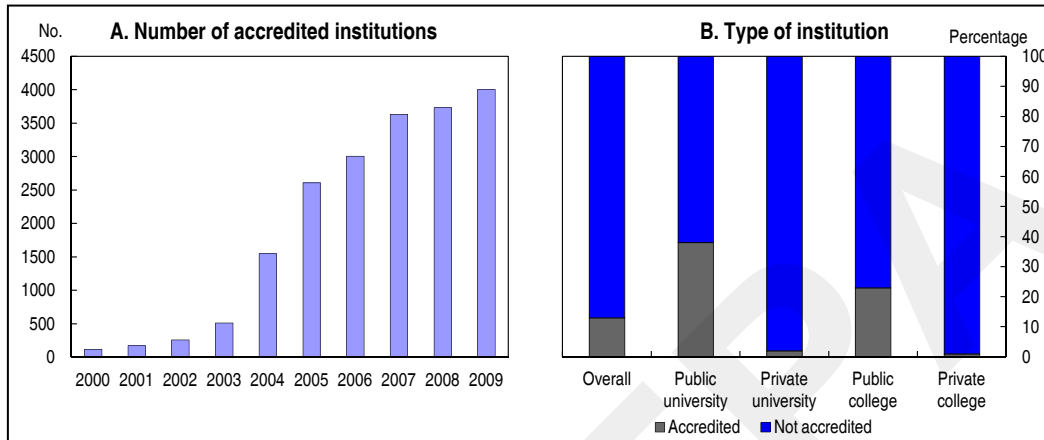
Effective quality assurance mechanisms are an important element of the policy framework, particularly in a country like India where the higher education sector is undergoing rapid change and expansion and there is a widespread need to lift teaching and research standards. They are also an important complement to reforms, which decentralise control and provide greater autonomy at the institutional level by improving managerial accountability. In India, a two-tier quality assurance framework exists, whereby the entry of new institutions and/or programmes requires government approval, and accreditation and assessment are provided by two principal quality assurance agencies, the National Accreditation and Assessment Council (NAAC) and the National Board of Accreditation (NBA). As in many other countries, the activities of these government accreditation agencies are complemented by demand-driven league tables published by media companies and other private organisations (Salmi and Saroyan, 2007). NAAC accreditation seeks to evaluate the standard of outputs as well as the effectiveness of processes and, therefore, provides a sound approach for improving quality. The number of assessed and accredited institutions rose sharply in the 2000s (Figure 10, Panel A). Nevertheless, as accreditation has not been made mandatory in all states, only around one-third of universities and one-fifth of colleges are covered (PRS, 2010). Moreover, coverage has been lowest amongst private colleges, the fastest growing segment of the market and the one where arguably independent evaluation is most needed (Figure 10, Panel B).

**Box 3: Internationally mobile university campuses and programmes**

International student mobility continues to be the most important form of higher education internationalisation. However, international programme mobility, the second most common mode of cross-border higher education, and institutional mobility have both expanded rapidly since the late 1990s. Programme mobility, typically, involves the traditional face-to-face form of instruction, which is either provided fully by a foreign institution or in partnership with local institutions. It may also involve students travelling abroad to undertake part of a programme at a foreign facility. Institutional mobility is a more nascent mode which represents a direct foreign investment by an education provider or company and includes the establishment of foreign branch campuses. For students, there are several attractions to these alternative modes of delivery, notably lower costs owing to both generally lower tuition fees and living expenses (which are invariably lower at home). Generally, programme and institutional mobility operates in accordance with government regulations where the student resides, to ensure compatibility with the local education system. Institutional mobility involves considerable financial costs and risks, given the substantial capital expenditure involved and the possibility of reputational damage if the venture is a failure, particularly for elite institutions. Direct financial costs are considerably lower for programme mobility. However, as the foreign institution is likely to lose at least some control over programme delivery, the risk of reputational damage caused by poor quality may be high, particularly when the programme is undertaken through a franchise.

In some emerging economies, governments have actively encouraged universities with an international standing to establish partnerships with local universities and/or establish foreign campuses. This is motivated by a desire to leverage the research and teaching quality of foreign institutions to boost local capacity, both to expand opportunities for local students and increase the quality of local higher education institutions, sometimes with a view to creating an education industry that will ultimately attract foreign students. In this respect, two of the most active countries have been the United Arab Emirates and Singapore, which have set a goal to attract 150 000 foreign students by 2015. In 2000, the government of Dubai established a “Knowledge Village” where several foreign universities have since established a campus. This initiative is located within a special economic zone that offers a number of financial incentives for foreign investors, including 100% full repatriation of capital (including profits) and tax exemptions. In Singapore, the government has provided direct financial support to attract foreign universities, including \$310 million for a medical school collaboration between the National University of Singapore and Duke University. Despite governments providing considerable incentives for foreign campuses and other collaborations, these have not always been successful and, in some cases, also costly. For example, in Singapore, the first private foreign university, which was established by the University of New South Wales with financial assistance from the Singapore government, closed after only two months due to a failure to meet student intake targets, resulting in financial losses for both the government and the university. Also, in Singapore, a research facility, established with Johns Hopkins University, closed due to failures to meet research goals, despite financial support from the government, while Warwick University withdrew plans to establish a foreign campus citing concerns over academic freedom.

FIGURE 10  
Institutions assessed and accredited by the NAAC



Source: Agarwal (2009) and NAAC.

The government is seeking a major overhaul of the quality assurance framework and has proposed new legislation that would result in a system of mandatory periodic assessment and accreditation. The structure of accreditation agencies would change significantly, moving away from the current reliance on two government agencies to one where new non-profit accreditation agencies would be free to enter the market, subject to registration and continual monitoring by a new statutory authority. Colleges and universities would be liable for covering the fees associated with accreditation and would be subject to financial penalties if found to be operating without accreditation. The proposed reforms have the potential to dramatically expand accreditation capacity and could give rise to specialisation in accreditation, which could improve effectiveness. Nevertheless, it is unclear whether large numbers of new accreditation agencies will, in fact, emerge, particularly given the absence of a profit motive. The government will need to closely monitor implementation and, if new accreditation agencies fail to materialise, ensure that the NAAC and NBA are sufficiently resourced to cope with the likely surge in demand.

Government-funding arrangements need to be reformed to provide better incentives for stronger performance. Currently, most government funding for both VET and tertiary education is institution-based and input-driven. Public universities and colleges tend to be inefficiently managed with often high ratios of non-academic to academic staff (Agarwal, 2009). They also have little incentive to seek other sources of revenue as these are, sometimes, offset by lower public allocations. Public VET institutes are allocated the same funding irrespective of their teaching and research quality or drop-out rate (World Bank, 2008). Under the UGC's Colleges with Potential for Excellence Scheme, grants are offered to high-performing colleges with larger amounts available for NAAC-accredited institutions. However, the coverage of the scheme is low, offering funding to a maximum of 246 out of over 25 000 colleges. Moreover, there appears to be ambivalence towards the scheme on the part of management in some colleges.<sup>5</sup> To add impetus to changes in the

5. "Few Colleges Apply for UGC Potential for Excellence Scheme", *The Times of India*, 7 October 2010.

higher education quality assessment framework in India, the government should consider tying more funding to outcomes, as is the practice in a number of countries (OECD, 2008). Given the current heavy bias towards institution-based funding, increasing the proportion of competitive, project-based funding, as is the growing trend in some OECD countries, would also likely lift research productivity (Box, 2010). In the VET sector, allowing more scope for institutions to provide commercial services would boost revenue and improve knowledge of industry needs.

Competition between higher-education institutions for students and funding is important to promote quality. On the surface, there appears to be intense competition in the tertiary-education sector in India, with a large number of private operators and relatively low barriers to entry, at least in the case of small colleges. In practice, competition is less intense and, therefore, less effective as a promoter of quality for two reasons. First, even with the rapid expansion in supply, the strength of demand and increase in enrolments has tilted the balance of market power in favour of providers, especially in the university sector. Second, the higher education market suffers from a number of imperfections that are particularly large in the Indian context. Chief amongst these are information asymmetries where consumers of education may not be well positioned to accurately judge the quality of the service on offer before making a commitment. It is difficult for Indian students to make informed decisions given the small size of colleges, especially when many have been in existence for only a short time and lack a proven track record.

Compounding this problem, private providers spend heavily on advertising, some of which has been found to be misleading.<sup>6</sup> The government has proposed new legislation designed to crack down on false advertising and other forms of malpractices. The AICTE recently introduced a mandatory public disclosure requirement for all institutions under its purview. The information is to be made available publicly and includes fees charged, pass rates for recent cohorts and background on faculty members. In the VET sector, the government has established the National Vocational Training Information Service, an internet-based system that provides basic information on courses offered by industrial training institutes and centres. These types of initiatives, which ensure that a minimum level of information is available to prospective students at a low administrative cost, should be expanded to all institutions and sectors. To reduce the cost of comparing institutions, the government could collate information provided by all institutions in a national, publicly-available database along the lines of the National Center for Educational Statistics in the United States.

## Academic workforce issues need attention

The quality of any higher education system depends heavily on its ability to attract and retain productive and committed academic staff. In India, the higher education system faces the dual challenge of lifting the productivity of academic staff, particularly with respect to research performance, whilst ensuring that institutions are adequately staffed and have access to an expanding pool of young academics to meet the growing demand for tertiary

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6. Market analysis from AdEx India showed that education providers were the largest source of advertising revenue in the print media in the first half of 2010.

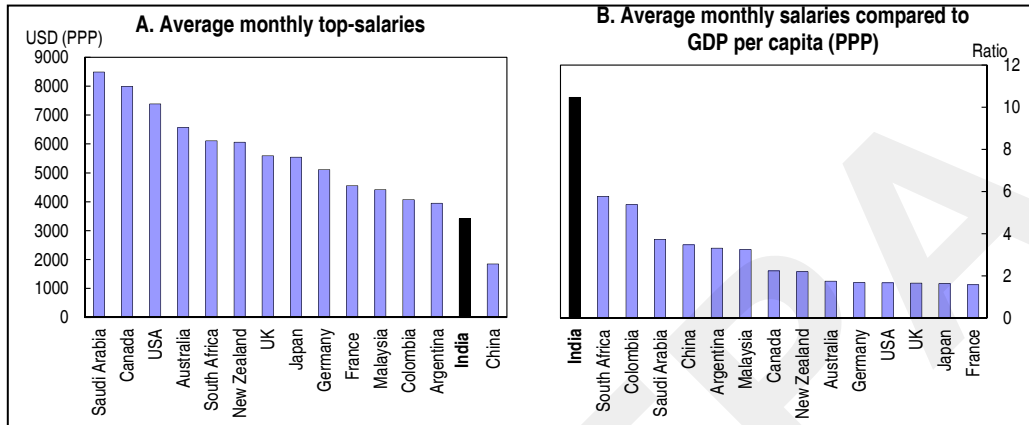
education. A recent survey indicates that significant faculty shortages already exist, with around half of all academic posts at universities found to be vacant, and similarly high vacancy rates in colleges, especially within the rapidly growing private unaided segment (Chadha *et al.*, 2008). This shortage has forced institutions to rely heavily on part-time and temporary contract workers to fill teaching vacancies, and around one in four university lectures are now employed on this basis. The proportion of contract lectures is even higher in colleges and many smaller colleges lack any kind of core faculty (Gupta and Parekh, 2009). Faculty shortages partly reflect the inability of the higher education system to provide adequate places for post-graduate training. Most colleges focus on undergraduate education and even in many universities, research capacity is weak. Teaching loads are high, even for senior staff, and many of the most capable researchers are located in specialised research institutions which largely operate in isolation from the higher education system (Basant and Mukhopadhyay, 2009).

Governments need to ensure that remuneration and working conditions in academia are competitive so as to attract high quality candidates into the profession. Like other public organisations, universities and colleges now face stiffer competition for skilled workers from the private sector, where salaries are rising rapidly. More attractive salaries and working conditions on offer in universities abroad compound the problem faced by Indian higher education institutions, particularly given the prevalence of English in the Indian system. Following the outcome of the 6<sup>th</sup> Pay Commission, the UGC recommended significant increases in academic remuneration at all levels. Even so, salaries compare poorly with those on offer in many other countries (Figure 11, Panel A). However, by domestic standards, salaries appear to be attractive, being several multiples of average per-capita incomes (Figure 11, Panel B). The competitiveness of salaries, at least domestically, is confirmed by surveys which report that the outflow of academics from the education sector is generally low, although higher in some more market-oriented disciplines such as science and engineering and also amongst junior faculty (Chadha *et al.*, 2008). To improve international competitiveness, authorities should consider implementing a special scheme with considerably higher remuneration and more flexible employment arrangements for internationally renowned scholars. Those employed under the scheme would provide leadership in research and post-graduate training, thereby boosting the pool of quality faculty over the longer-term, as well as lifting research capacity more generally. As the scheme would target a relatively small number of scholars, it need not be particularly costly and could initially be run on a trial basis before being scaled up. Such initiatives have been adopted in other advanced and emerging economies, including in China where the leading universities have the flexibility to offer much higher salaries and, in some cases, allow staff to hold part-time appointments abroad (Altbach, 2009).



FIGURE 11

## International comparison of academic salaries



Note: Average monthly top salaries based on professorial salaries. For India, average salaries are based on the average of assistant and full professor salaries. Salary data for India are based on UGC guidelines issued in 2008, following a review stemming from the 6<sup>th</sup> Pay Commission, and include basic additional academic and transport allowances but not rental assistance and other special allowances which depend on location. Salaries are calculated using World Bank PPP exchange rates. For other countries data, refer to the period 2004 to 2007.

Source: Rumbley *et al.* (2008) and World Bank, World Development Indicators.

The current system of recruitment and promotion in India does not reward talent enough and needs to be reformed to promote greater meritocracy. A common practice in India is for universities to hire their own graduates which can create problems for building a productive and independent academic culture and, in some cases, applicants for academic jobs have been expected to provide payments to the hiring authority (Altbach, 2009). Experience is often a key factor determining promotion prospects, with UGC guidelines specifying minimum number of years of service as a key criterion for advancement at all levels. As part of broader reforms to provide greater institutional autonomy and accountability, control over recruitment needs to be decentralised to the institutional level where management will be better placed to reward effort. There also needs to be a move away from the current indiscriminate use of permanent contracts, as is the practice in an increasing number of OECD countries (OECD, 2009). Instead, better career pathways, which provide opportunities and rewards for promising young academics, need to be devised. One option is to fund more temporary post-doctorate positions, which enable younger workers to establish their research credentials before becoming eligible for longer-term contracts.

## Conclusion

Against a background of sustained rapid economic growth, rising public and private spending has ensured a marked expansion of the Indian education system. Considerable progress has been made in lifting enrolment and reducing gender disparities, and the goal of universal enrolment at the elementary level is moving closer to fruition. However, high drop-out rates and low student attendance continue to hold back progress. Moreover, enrolment rates at secondary and tertiary levels compare poorly internationally. Large disparities in

enrolment across states persist and some official minority groups continue to be disadvantaged. The Right to Education Act, complemented by other initiatives to encourage attendance, should provide a renewed impetus to raising enrolments. However, introducing other targeted programmes, including those designed to improve the health of children, may also be needed. The private sector share of enrolments, which is already greater than a half at the tertiary level, is likely to continue and policies need to ensure access across all segments of the population. The government has implemented reforms that require private schools to allocate one-quarter of places to government-funded students. Ideally, these places should be allocated to the most economically disadvantaged students. To help improve access to higher education, government loan guarantees should be provided for eligible students to alleviate credit constraints. Introducing a government loans' scheme for all or some students, with an income-contingent repayment system, where feasible, would also have merit.

Despite the progress made in lifting enrolments, test results for school children point to widespread shortcomings in educational achievement and efforts need to focus on improving outcomes. Teacher effectiveness needs to be enhanced by strengthening accountability and incentives. Problems with teacher absence endure, and employment arrangements for public school teachers need to be reformed by strengthening dismissal provisions for teachers not performing satisfactorily. Local communities should also be empowered to have a greater say in the recruitment process. Increasing teacher resources and improving teacher development can help lift instructional quality. Student-teacher ratios are high, and teachers are often required to teach children in different grades simultaneously. This tends to reduce the teaching time available to each student. The government's goal of reducing student-teacher ratios should help lift instructional quality. Where appropriate, contract teachers should be employed to complement regular teachers so as to ensure this expansion is achieved in the most cost, effective manner. At the same time teacher development pathways, including pre-and in-service training, need to be made more accessible and effective.

Some Indian tertiary education institutions compare favourably in international rankings but, on the whole, many graduates appear to be inadequately trained for the workforce. Regulation is often ineffective, restricting choice and hampering entry and innovation. Several recent reform proposals could help in this regard. A proposed new umbrella regulator – the National Council for Higher Education and Research – could reduce overlap between regulatory agencies. However, it would need to adopt a lighter regulatory touch and allow universities and colleges more autonomy. Vocational training institutions also need to be granted more managerial autonomy while linkages with industry need to be further strengthened to ensure quality improvements and ensure programme relevance. Separate reforms could simplify procedures for foreign educational institutions to operate in India but other requirements and restrictions may deter some providers. The regulations governing programmes, offered jointly by Indian and foreign institutions, also have to be clarified. The need for effective quality assurance mechanisms is particularly strong in India given the rapid expansion of private providers. The government is moving to a mandatory accreditation system and opening the market to new accreditation agencies, which should improve coverage.

Finally, funding and recruitment arrangements in higher education need to be reformed. A greater proportion of public funding should be linked to the outcomes from quality assurance assessments in order to strengthen incentives for higher performance. This could be complemented by more project-based funding, allocated on a competitive basis, to encourage stronger research performance. The government also needs to do more to ensure

sufficient growth in the academic workforce. Widespread faculty shortages already exist and there is a heavy reliance on contract teaching to fill teaching vacancies. As research and post-graduate training capacity in many institutions is weak, there is a risk that the supply of young academics will continue to be inadequate. Remuneration is competitive by local standards but not so internationally, and avenues for recruiting and retaining top-performing academics should be explored. The current focus on experience, particularly years of service, as a criterion for promotion may discourage capable young faculty and needs to be reconsidered.

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## Right to Education or Right to Graduation?

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### Introduction

The Right to Children to Free and Compulsory Education Act, 2009 (RTE) was notified on 1st April, 2010. The RTE Act was enacted to operationalise the 86<sup>th</sup> Amendment to the Constitution which made education a fundamental and justiciable right. The Constitution of India, in a directive principle contained in Article 45, has made a provision for free and compulsory education for all children up to the age of 14 years. This was to be achieved within 10 years of the promulgation of the Constitution. Though efforts were not lacking, the nation could not achieve this goal. The efforts gained further momentum after the adoption of the 1986 New Education Policy. The Government of India, in partnership with the state governments, has made strenuous efforts to achieve the mandate of universalizing elementary education, with the result that even before the enactment of RTE, the enrolment reached as high as 92 per cent by 2005.

### 86th Amendment

In the meanwhile, the Supreme Court of India in 1992 declared that the citizens of this country have a fundamental right to education and further decreed that every child/citizen of this country has a right to free education until he/she completes the age of 14 years. The Supreme Court further ruled that the right to free education flows from fundamental right of the people to live as human beings with dignity.

A new Article 21-A which reads: "The state shall provide free and compulsory education to all children of the age 6 to 14 years in such manner as the state may, by law, determine" was inserted. The 86<sup>th</sup> Amendment also effected substitution of a new article in the place of original one for Article 45. The new article reads: "the state shall endeavor to provide early childhood care and education for all children until they complete the age of six years".

### The RTE Act

The 86<sup>th</sup> Amendment was made in 2002. The RTE Bill was drafted in 2005 and became an Act in 2009. The Act came into being in 2010. It took 18 years to give effect to the Supreme Court judgment making the right to education a fundamental right.

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The RTE Act is the most substantive declaration of the government's commitment and responsibility towards education. The Act clearly makes the State responsible for providing free and compulsory education to all children in the age group of 6-14 for eight years.

The Act also sets basic norms in terms of infrastructure, learning facilities and academic calendar to be satisfied for all types of schools. Besides prescribing a pupil – teacher ratio of 30:1 in each school, rather than as an average over a block or district, the Act clearly lays down the academic qualifications, duties and responsibilities of the teachers.

## Not Enforceable

However, the RTE Act has several serious shortcomings. While the intentions of the RTE are very noble, there are several critical gaps which have undermined the very spirit of the whole exercise.

Whereas the 86<sup>th</sup> Amendment has recognized the right to education as a fundamental and legally enforceable right, the right guaranteed under RTE is not justiciable. The Act, in fact, prohibits prosecution against any violation of the provisions of the Act. It categorically states that “No suit or other legal proceedings shall lie against the Central Government, the State Government, the National Commission for Protection of Child Rights, the State Commission for Child Rights, the local authority or the school management committee or any person, in respect of anything which is in good faith done or intends to be done in pursuance of this Act or any rules or orders there under”.

Thus, the RTE has become a toothless legislation. The RTE imposes a social responsibility on the part of private schools to admit students from weaker sections for which there will be fee reimbursement by the State. In spite of this, a large majority of the schools, both big and small, are denying admission to these children. The citizens have become mute spectators to the clear violation of the important provision of the Act.

## Enrolment Drift

In the meanwhile, there has been a structural change in the elementary education system. Slowly, but steadily, the private sector participation has increased in the school education. The Annual Status of Education Report (ASER) - 2013 was released in January 2014 by PRADHAM. It has thrown light on several aspects of the status of primary education in rural India. The report brought to the fore the increasing importance of the private schools. The all India rural private primary school enrolment, which was about 17 percent in 2005, rose to 29 per cent by 2013. It is indeed ironical that after the State assumed the responsibility of providing free and compulsory education, there has been an enrolment drift away from the government schools to private schools (Table 1).

Of the 27 states for which data are available, 12 have lower enrolment rates than the national average. Of those, Tripura, West Bengal, Odisha and Bihar have recorded less than 10 percent enrolment in private schools. Tripura, with 6.7 per cent enrolment rate in private schools, had the lowest enrolment rate in the country in private schools. Of the 15 states which had enrolment rates higher than the national average, four states-Haryana, Pondicherry, Kerala and Manipur - had more than 50 per cent enrolment in private schools. Manipur, with 70.5 per cent, had the highest enrolment rate in private schools in the country, which is closely followed by Kerala with 68.6 per cent. Pondicherry (54.3 per cent),



Haryana (51.4 per cent), U.P (49 per cent), Punjab (46.7 per cent), J&K (45.5 per cent), Meghalaya (45.3 per cent), Nagaland (39.4 per cent), Rajasthan (39.5 per cent) and AP (34.0 per cent) have recorded substantially higher than the national average enrolment rate in private schools (29 per cent). Among the Southern states, Karnataka and Tamil Nadu had more than 75 per cent of the rural children enrolled in government schools as against about 70 per cent enrolment in private schools in Kerala. Private school enrolment rates are increasing in AP and they reached a level of 34 per cent in 2013.

TABLE 1  
School enrolment, tuition and learning levels 2013

State	Out of school	Private school	Tuition		Std. III-V: Learning levels		Std. VI-VIII: Learning levels	
	% Children (Age 6-14) out of school	% Children (Age 6-14) in private schools	% Children (Age 6-14) who attend paid additional tuition classes	Average tuition expenditure Rs./month (Age 6-14)	% Children (Std. III-V) who CAN READ Std. I level text or more	% Children (Std III-V) who CAN DO SUBTRACT ION or more	% Children (Std VI-VIII) who CAN READ Std. II level text	% Children (Std VI-VIII) who CAN DO DIVISION
1	2	3	4	5	6	7	8	9
Tripura	1.1	6.7	65.8	309	53.6	41.6	55.3	28.2
West Bengal	3.1	7	73.9	178	59.1	43.6	66.1	33.7
Odisha	3.3	7.3	51.2	157	55.6	38.3	63.3	34.9
Bihar	3.5	8.4	52.2	140	47.9	41.1	66.1	54.5
Gujarat	3	15.1	14.8	184	59.2	32.3	67.8	26.8
Jharkhand	3.8	15.7	29.7	131	45.4	34.9	61	42.8
Chhattisgarh	2.3	15.9	2.8	185	53.8	27.7	72.3	26.9
Assam	3.8	17.1	17.7	315	46.4	30.1	52.6	19
Madhya Pradesh	3.5	20.3	8.1	161	38.1	22.3	51.2	25.2
Karnataka	1.8	22.5	8.9	121	56.6	45	63.1	37.4
Sikkim	1.3	23.1	30.6	360	75.2	72.3	77.4	63.3
Tamil Nadu	0.6	26.8	14.5	82	50.2	39.2	56.9	30.9
Mizoram	0.4	32.4	3.7	305	80.2	77.8	82.5	72.3
Himachal Pradesh	0.8	33.9	7.7	262	78.5	65.3	86.4	59.1
Andhra Pradesh	2.8	34	12.8	105	68.3	57.6	72.3	51.9
Maharashtra	1.6	37.5	10.2	213	70.3	31.7	72.5	28.9
Nagaland	1.2	39.4	16.7	276	75.8	57	72.6	43.7
Uttarakhand	1.9	39.4	18.5	210	64.2	45.1	76.2	47.8
Rajasthan	5.8	39.5	5.6	258	52.8	37.4	70.1	42.6
Meghalaya	4.1	45.3	13.3	240	80	46.9	78	29.5
Jammu & Kashmir	1.8	45.5	16.3	367	63.6	53.6	60.9	35.8
Punjab	1.4	46.7	23	260	72.3	66.6	82	61.7
Uttar Pradesh	5.1	49	14.5	174	47.8	36	62.8	37.6
Haryana	1.3	51.4	14.5	276	72.5	62.7	78.9	58.4
Puducherry	0.6	54.3	37.6	137	51.9	41.2	49.8	35
Kerala	0.1	68.6	26.2	231	77.8	60.6	87.9	56
Manipur	1.5	70.5	38.9	345	78.7	67.2	83.1	62.6
All India	3.3	29	24.1	169	54.8	39.7	65.7	38.9

The increasing enrolment rates, both in the traditionally low private school states and high private school states, substantiates the argument that income elasticity of demand for government school education has become negative, making public education an inferior

good. The ASER does not provide data on household income, but has valuable data on the type of houses and enrolment. In 2013, 29.5 per cent of the households were *Katcha*, 26.4 per cent semi-*pucca* and 44.1 per cent *pucca*. The proportion of children enrolled in private schools is much higher among *pucca* households (44.2 per cent), than the national average (29 per cent). Even in *katcha* households, as many as 15 per cent of children were enrolled in private schools. Thus, the rural households have been demonstrating their marked preference for private schools, which has long-term implications.

## Abysmal Low Learning Outcomes

Every year the ASER survey is done in the middle of the school year. The set of testing tools of ASER are very basic-reading letters, common and simple everyday words, easy four line paragraphs (at Standard I level of difficulty). The highest reading task is reading a small “story” at Standard II level of difficulty. This exercise is carried out orally with children (age 5 to 16) and in the language of instruction. The child is marked at the highest level that he/she can read comfortably.

### Reading levels (Std. III – V)

At the all-India level, the proportion of children currently enrolled in Standard III who could read at least a Standard I level paragraph is only 40.2 per cent. There is a substantial difference between government and private schools in this regard. While 59.6 per cent of children enrolled in Std. – III in private schools are able to read at least a Standard I level text, this proportion for government schools is a mere 32.6 per cent.

Similarly, only 47 per cent of children of Standard V could read Standard III level text. While 63.3 per cent of children enrolled in private schools in Std. V could read Std. II level text, only 41.1 per cent of children in government schools could do that task.

When both the standards are considered (Std. III – V levels), the proportion of children who could read a Std. – I level text has improved to 54.8 per cent. There are considerable regional variations in the reading ability of the children. In Madhya Pradesh, only a little over than 1/3 of the children who were in Std. III-V could read Std.-I level text. In Tamil Nadu, half of the children currently enrolled in Std. III-V could accomplish this task. In this parameter, Mizoram and Meghalaya fared well. About 80 per cent of the children, who are in Std. III-V, are able to read the text meant for Std. –I while about 54 per cent of the children in Tripura could accomplish this task. Tripura, Odisha, and West Bengal, which had highest enrolment rates in government schools, have recorded relatively impressive performance in this regard.

### Arithmetic levels (Std. III – V)

At the all-India level, only about 26 per cent of children enrolled in Std. III are able to do a two-digit subtraction with borrowing. While 44.6 per cent of private school enrolled children could do such subtraction, the corresponding figure for government children is only 18.9 per cent. Chattisgarh, Assam, Maharashtra, Gujarat, Jharkhand, U.P, Rajasthan, Odisha, however, have lower than the national average proportion in this regard. In states like Himachal Pradesh, Punjab, Manipur, Sikkim and Mizoram, more than 65 per cent of the children currently enrolled in Standard III-V could do subtraction or more.

The proportion of children in Std. V who could solve a three-digit by one-digit division is only 25.6 per cent. While 38.9 per cent of children in private schools could do this level of division, the corresponding proportion for government schools is 20.8 per cent only.

When both the standards are considered (Std. III-V), about 40 per cent could do subtraction or more. This proportion was lowest in MP (22.3 per cent) and highest in Mizoram (77.8 per cent). Traditionally, low private school enrolment states like Tripura, West Bengal and Bihar had fared fairly better than their counterparts in this parameter.

### Reading and Arithmetic levels (Std. VI-VIII)

About 66 per cent of children, currently enrolled in Standard VI-VIII, could read a Standard II level text at the all -India level. There are again inter-state variations. As many as 10 states had lower proportions than the national average in this parameter. West Bengal, Bihar, Gujarat, and Rajasthan have fared better in this parameter while Kerala, Himachal Pradesh, Manipur and Mizoram have done extremely well.

At the all-India level, the proportion of children in Std. V who could solve a three-digit by one-digit division problem was a mere 25.6 per cent. While 38.9 per cent of children in private schools could do this level of division, the corresponding proportion for government schools is as low as 20.8 per cent.

A mere 38.9 per cent of children currently enrolled in Standard VI-VIII could do the division. In this regard, 14 states had lower than national average proportion. In Assam, only 19 per cent of the students enrolled in Standard VI-VIII could do division while in Mizoram, as high as 72 per cent of the children could do this task. Punjab, Manipur and Sikkim have done relatively better in this parameter. The three-digit by one – digit division problem is part of the curriculum for Std. II in most states. The very fact that a little less than 2/3 of children currently enrolled in Std. VI-VIII are unable to do simple divisions speaks very low of learning outcomes of the rural schools, both public and private. It is disheartening to note that a large proportion of our children in rural schools are struggling even to attain the minimum levels of arithmetic and reading skills prescribed for lower standards.

TABLE 2  
Trends over time

Year	% Children in Std III and V at different READING levels by school type 2009-2013			% Children in Std V who can read Std II level text		
	% Children in Std III who can read at least Std I level text			% Children in Std V who can read Std II level text		
	Govt.	Pvt.	Govt. & Pvt.*	Govt.	Pvt.	Govt. & Pvt.*
2009	43.8	58.2	46.6	50.3	63.1	52.9
2010	42.5	57.6	45.7	50.7	64.2	53.7
2011	35.2	56.3	40.4	43.8	62.7	48.3
2012	32.4	55.3	38.8	41.7	61.2	46.9
2013	32.6	59.6	40.2	41.1	63.3	47

Source (Table 1&2): PRATHAM: Annual Status of Education – 2013 (Rural)

## Learning Outcomes and Teacher Payments

There is an argument that teachers are not paid enough and, hence, they are not able to focus on the learning outcomes of the pupils. According to Sen and Dreze, the primary school teachers' salaries, as a ratio of per capita GDP, has been on the rise and shot to around five to six times after 2009. The Indian teachers get paid five to six times the amount the average Indian makes. For nine major states, the ratio in 2012 stood at 4.9. The ratio of average teacher salary to per capita income of the state is as high as 17.5 in Bihar and 15.4 in UP. Even the OECD average of the same is around 1.2. Sen and Dreze concluded that "whatever may be the source of problem of low teaching efficiency, the blame cannot be placed on alleged lowness of salary of school teachers".

The RTE prescribes a pupil-teacher ratio of not more than 30:1. Appointing regular teachers with high salary commitment has become a tall order for many states. To satisfy RTE norms, majority of the state governments are appointing untrained teachers on contract basis on a fraction of what regular teachers are paid.

## No Detention, No Quality

The RTE mandates a non-detention policy (Section 16 of the Act) and ensures automatic promotion from one class to the next up to the 8<sup>th</sup> standard. This provision is counter intuitive and does not help achieve learning and ensures only students' progress from one class to another without ensuring minimum learning outcomes. This provision negatively impacts the right of a child to receive quality education. The Parliamentary Committee report on the RTE Bill, 2008 also termed this provision as "counter intuitive" as it does not contribute to a fair evaluation of learning outcomes. In AP, the no-detention policy has been in force since early 70s. This has adversely impacted the learning outcomes in the government schools. The no-detention policy has created a system which, essentially, does not require any metric of performance. Public education in the state has become "of the teacher, by the teacher and for the teacher".

## Input focused

The RTE Act is excessively input - focused, rather than outcome-oriented. The RTE tries to address everything - enrolments, infrastructure, teachers, materials etc.. Overemphasis on input - oriented expansion does not automatically guarantee learning outcomes. Any Act on education should start addressing the lack of learning outcomes. That is clearly missing in RTE. The RTE guarantees graduation but not education.

## Conclusions

The forgoing discussion raises two important issues: i) increasing preference for private schools, leading to marginalization of government schools in the near future, and ii) an all pervading learning crisis in rural India. Both the issues need to be addressed urgently. Private schools may be doing better than government schools. But the very fact that about 60 per cent of rural children, currently enrolled in Std. VI-VIII, could not do a simple division reflects the magnitude of the learning crisis looming at large.

Private schools located in rural areas are not elite public schools. In terms of physical infrastructure, they are no better than government schools. The teachers are less qualified and paid less than the government teachers. However, the learning outcomes of these schools are better than those of the government schools. In spite of strengthening the government schools in terms of physical infrastructure, number of teachers, higher salaries, policy support and pro-active interventions, the learning outcomes in government schools have been on the decline and in most states, are poorer today than what they were a few years ago. Why are the government schools not delivering?

Besides unionization and lack of accountability, there seem to be other reasons for poorer learning outcomes in government schools. Despite the age specified in the RTE (age 6), the actual age of children enrolled in Standard 1 considerably varies between government and private schools. The ASER data show that of all the children in Standard 1, 24.5 per cent are less than six years, 33.6 per cent are aged more than six years and 41.9 per cent are aged six years. The age distribution of children by the type of schools reveals an interesting pattern. The private schools have a greater proportion of older children while the government schools have a greater proportion of younger children. While about 47 per cent enrolled in Std. I in private schools are aged more than six, only about 27 per cent in government schools are aged more than six years. While only 18 per cent admitted in private schools are underage, about 27 per cent enrolled in government schools are underage. The data further reveals that there is a close association between the age of children and their learning outcomes.

Even within the same type of schools, older children have a definite advantage in learning. While nearly half of the older age children in government schools could at least recognize letters, only one-third of the students, who are underage, could accomplish this task. The corresponding proportions for the children in private schools are 82 per cent and 57 per cent. The data further provides evidence that the initial learning advantage sustains overtime. The youngest children in government schools are not catching up with their older counterparts or those in private schools. The data suggest that the early lead of private school children over government schools which was visible in Std. I continues and sustains over the next five years or so.

It is a known fact that children enrolled in Std. I in private schools have one or two years of preparation in kindergarten classes. A large proportion of children admitted in government schools have no such kindergarten training. The important question is how to provide pre-school preparatory training for children being enrolled in government schools. In order to improve learning outcomes and sustain them in the long run and reduce the glaring difference between private and government schools, some form of pre-schooling arrangement must be in place for children going to be enrolled in government schools.

It is also necessary to examine whether the grade-wise syllabus upto Std. V can be dispensed with and replaced with stage-wise sets of learning outcomes. The present focus on completion of syllabus is not yielding the expected results since more than 60 per cent of government schools have multi-grade and multi-level classes. Not only that-more than 50 per cent of children enrolled in these classes lag at least two years behind in terms of basic learning competencies. There are huge variations in learning levels of the children in the same classroom. Around 20 per cent of the children are first generation learners, with no learning support from either parent. In this context, it may be worth considering defining measurable learning outcomes of each standard and drawing workable plans to achieve

them. The present dysfunctional, continuous comprehensive evaluation process (CCE) has to be transformed into a systematic monitoring of attainment of basic learning outcomes.

The SSA has been conducting sample-based achievement surveys since 2001. These are pen and paper tests which required Standard 3 and Standard 5 children to read and respond to questions. But 65 per cent of children in Standard 3 could not recognize even words. In Standard 5, 35 per cent of children do not read words. How in that case is SSA using pen and paper tests?

The excessive unionization of teachers and inter-union competition have become the breeding ground for teacher indiscipline in government schools. The no-detention policy has led to growth of complacency and indifferent attitude towards the learning outcomes. The insistence on pass percentage rather than on measurable learning outcomes by the supervisory authorities, has led to the dilution of testing and evaluation even at the Board level examinations. Most of the teachers are not enrolling their children in the schools where they are working or in the government schools in the area where they are residing. This has a demonstration effect on the common man. When government teachers do not prefer government schools, why should others prefer them? It is ironical that while the government teacher posts are in great demand, government schools are losing their demand even from weaker sections.

The mid-day meal scheme was launched in government schools as a supplemental nutritional programme for poor children. It is necessary to examine the impact of the programme on the quality of enrolment, retention and learning outcomes and investigate as to what extent the observed enrolment drift away from government schools is due to it. One thing is sure that the whole activity in government schools now centers around the mid-day meal programme, consuming much of the time of the Head teacher. The supervisory focus has also shifted from verifying achievements in learning outcomes to the proper implementation of this programme.

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PRADHAM: *Annual Status of Education - 2013* (Rural), New Delhi.

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## Deemed to be Universities and Private Universities as Private Institutions for Quality in Higher Education — A Comparative Study

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## Introduction

Higher education has undergone a remarkable conceptual change in recent years. Now it is a complex system. India has had an exponential growth of higher educational institutions. Such growth made Indian higher education system as the largest higher education system in the world. It has still a lot of scope to expand as the portion of our population in the relevant age group that enters the world of higher education is about 7 per cent (NKC, 2009).

Higher education (HE) is the education which is generally given at colleges/university level institutions. Higher or tertiary education does not provide only academic services but also services such as career counseling, hands-on experiences, support services, ICT, extra-curriculum facilities etc. (Haque, Das and Farzana, 2011). HE imparts in-depth knowledge and understanding so as to advance the students to new frontiers of knowledge in different walks of life (subject domain). Furthermore, it is about knowing more and more about less and less (NAAC, 2007). Thus, the emphasis of HE should be more on the specialized body of knowledge and skills rather than providing a bulk of knowledge that has nothing to do with specialization. Specialization is important as it leads to quality.

## Quality in Higher Education

Concept of quality in higher education has changed with its expansion. More specifically, the perception of people has changed regarding quality of higher education. It raised a question pertaining to quality in HE as to what really constitutes quality in HE? The answer to this question is, of course, not as easy as it seems. Its answer is deeply rooted in the literature.

Exploration of last decade literature like James (2002), Barnett (2004), Chua (2004), Mukhopadhyay and Bhushan (2004), Becket and Brookes (2005), NAAC (2007), Amin (2008), Furqan (2008), Zaki and Zaki (2008), Pitroda, (2009), Rosle Mohidin et al. (2009), Sharma and Singh (2009), Walmiki, Peterson and Richard (2010), Haque, Das and Farzana (2011), Jhingan (2011), SSM, Walmiki, Uche and Ahunanya (2011), and Jha and Ali (2012) etc. related to quality in higher education identified several factors for quality in higher education. These factors were analyzed and classified into Inputs, Processes and Output. Thus, the quality in HE is a function of Quality Inputs comprising: a) Effective Curriculum, b) Effective Admission Process, c) Adequate Physical Infrastructure and d) Experienced and Qualified Academic Infrastructure, Quality Processes consisting of: a) Effective Leadership, b) Innovated Teaching Methods and c) Continuous and Comprehensive Assessment System and Quality Output: a) Student's Satisfaction.

## Rationale of the Study

Now-a-days, demand for professional education is on top. This demand is manifest in the number of aspirants for these courses. But top class institutions like IITs, IIMs and some other reputed higher educational institution have limited numbers of seats. These institutions are not able to fulfil demand of all aspirants. It generates gap between demand and supply of seats in these professional courses. This gap is fulfilled by private institutions.

These institutions project themselves as world-class institutions while making a lot of commitments to the aspirants. One of the serious concerns is whether these institutions fulfil



their commitments? It is also another matter of concern as to whether these institutions are in a state to fulfil their commitments?

Private and privately sponsored Deemed to be Universities are two different types of private institutions. The provision to grant the status of Deemed to be University was reserved for truly outstanding educational and research institutions but it does not seem to be implemented the way it should be.

Do these universities really differ in quality of education and research as compared to a Private University?

In the study, a conceptual framework for quality in HE was developed.

The two types of privately sponsored universities i.e. Private and Deemed to be University were assessed on the basis of conceptual framework to get answers to concerns raised in the research.

## Objectives of the Study

1) To compare Infrastructure of Deemed to be Universities and Private Universities with regard to academic and physical infrastructure, 2) To compare the curriculum of Deemed to be Universities and Private Universities in regard to the curriculum structure, teaching methods and assessment methods, 3) To compare leadership effectiveness of Heads of the departments of Deemed to be Universities and Private Universities and 4) To compare the students of Deemed to be Universities and Private Universities in relation to their satisfaction with facilities and services of universities.

## Research Methodology

Descriptive Survey Method was employed.

## Population of the Study

The population consisted of all the privately sponsored 'Deemed to be Universities' (DU) and 'Private Universities' (PU) of the Delhi national capital region (NCR).

**Target Population:** Target population comprised all the privately sponsored "Deemed to be Universities" and "Private Universities" of Delhi NCR which were established till 31<sup>st</sup> March, 2009 as well as having Engineering and Management departments. The date was selected to ensure that these universities have students who have completed four semesters of regular study in them so that the students are well aware of the facilities and services in their respective universities.

**Sampling Frame:** A list of four privately sponsored Deemed to be Universities and three Private Universities of Delhi NCR were developed.

## Research Sample

Two "Deemed to be Universities (DU)" and two Private Universities (PU) were selected through the use of 'Simple Random Sampling Technique'. Eighty faculty members and 400 students were selected through the use of 'Purposive Sampling Technique'.

## Research Tools

a) Leadership Effectiveness Scale (LES) by Haseen Taj (2009) and three self-developed tools namely, b) Student's Satisfaction Scale (SSS)\* (now it is published as "Student's Institution Satisfaction Scale" in 2013 (ISBN: 978-938398-03-4) published by HP Bhargava Book House (National Psychological Corp.), Agra, UP, c) Faculty Questionnaire (FQ) and d) Observation Schedule (OS).

## Conclusion

All deserving youth should get equal quality of higher education. For highly populated and developing countries like India, it would be difficult for government alone to provide higher education for the entire youth population. Furthermore, the absence of any significant expansion in different sectors of higher education by the State has created a space for the growth of private providers (Pal, 2009). The participation of the private sector may be taken as a positive solution towards providing higher education for all youth. However, it is the responsibility of the government to ensure quality in these privately sponsored higher educational institutions while monitoring their functioning regularly. As "...after obtaining university status, to give "guaranteed" degrees at any level, including PhD, for a price. This has dealt a serious blow to the credibility of the Indian university degree (Pal, 2008)". Although UGC and other statutory bodies of all higher education streams have taken various safety measures to ensure quality, it appears the provisions are fulfilled by institutions as only a mechanical exercise. Indeed, institutions are more concerned about conforming to set provisions for ensuring quality rather than understanding localized constraints in maintaining quality.

Deemed to be Universities' faculty members have more experience than their counterparts from Private Universities whereas in terms of qualifications (Ph.D. as highest qualification) and the number of publications, the faculty of Private Universities score over those from the Deemed to be Universities. The proportion of teachers with Ph.D. as the highest qualification is indicative of the quality of teaching staff and has a bearing on the research potential of the University (Qamar, 2008). Thus, the Private University has more potential for research unlike the Deemed to be University, which is supposed to have higher potential for research and innovation (the reason for being conferred deemed status and deriving more cumulative investment).

While both types of universities have basic physical infrastructure, the perception of faculty members in the Deemed to be Universities was better than those in the Private Universities with regard to sufficiency of overall infrastructure.

Deemed to be Universities have larger number of titles of books and subscribe more journals (national and international) whereas Private Universities have higher number of volumes of same titles and CDs/DVDs in the library. The number of books and journals in the library is indicative of the cumulative investment in learning resources available with the university (Qamar, 2008). Deemed to be Universities, as such, make more cumulative investment on library.

Faculty members and students at Deemed to be universities were more positive regarding library facilities compared to their private universities' counterparts.

Structure of curriculum and time duration in both types of universities are the same. Both types of universities offer similar courses, integrated courses and dual specialization courses, with same time duration for the courses. Students of both types of universities can change their branches/minors/electives only at the end of the first semester. The two types of universities have a provision for admission through national-level entrance examinations like AIEEE, GATE, CAT and MAT followed by their own entrance tests for left-over seats. However, despite this two-tiered admission process through national level examinations, followed by their own university-level entrance tests, it appears from admission-related advertisements in print and electronic media throughout the year that seats remain vacant in these universities. For management courses incidentally, entrance test is followed by group discussion.

A committee, with both internal and external members, is constituted in both types of universities for curriculum development. However, while neither type of university has any fixed duration for revision of syllabi, NKC (2009) has recommended that there should be revision or restructuring of curricula at least once in three year and that these revisions be subjected to outside peer review before implementation.

Both types of universities have curriculum that has scope for using ICT during teaching-learning process. ICT is used by their faculty members. Both types of university have similar curriculum as per the opinion of their respective students.

Most usable teaching methods in both types of the university were Lecture and Discussion method. Case Study, Role Play and Seminar method were among the least used teaching methods. The Finding that Lecture method was among the most used teaching method at higher level is endorsed by Jaffer (2007).

The ratio of internal and external assessment was 30:70. "Assessment cannot and should not be based on examinations alone as examination often stifles the teaching-learning process because it rewards selective and uncritical learning. Weight of Internal should be raised to 50 percent, as recommended by NKC, 2009". Assessment at both types of university was continuous and comprehensive as it was done with the use of a number of methods/strategies. For the internal assessment, faculty of both types of university use Observation, Presentation (Project and Summer Training), Assignment, Attendance and practical test. Summer Training is an integral part of courses and has weightage in internal assessment. There is no significant difference in Leadership effectiveness of heads of the departments. Heads of departments of both types of universities were moderately effective leaders.

There is no significant difference in Student's Satisfaction. Students in both types of university have moderate level of student's satisfaction. While student's satisfaction should be one of the major aims of the universities, neither of the two types of universities have highly satisfied students as both types of universities were not really fulfilling the expectations of the students.

Overall, the Deemed to be Universities were better than Private Universities. This edge is only because as institutions, Deemed to be universities are older than Private Universities.

Both types of university need to develop a mechanism which can transform their leaders as highly effective leader and fulfil needs and expectations of the students in order to have highly satisfied students.

## Educational Implications

1. As assistant professors are in majority and they were not able to use innovative teaching methods, both types of universities should design an appropriate orientation programme for their newly-appointed faculty members, especially those who have just started their career as teachers, so that they become well aware of the nuances of various teaching and assessment methods.
2. Higher qualified faculty members should be appointed so that quality teaching of staff with attendant bearing on research potential can be ensured. Proportion of teachers with Ph.D. as highest qualification is indicative of the quality of teaching staff with its bearing on the research potential of the university Qamar (2008).
3. Management should encourage their faculty members to get involved in intellectual activities like seminars/conferences/research paper writing etc. and get their work published so that the university can intellectually contribute to the society at large.
4. Focus should be on fulfilling the educational needs of the students rather than merely ensuring quality through a mechanical process i.e. the focus should not only be on conformity with the norms laid down by respective statutory bodies but also on students' needs. Students' satisfaction should be assessed on this basis and university administration should, in this context, seek to improve educational facilities and services in their university.

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## Book Reviews

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RAO, Parimala V. (ed.) (2014): *New Perspectives in the History of Indian Education*, Delhi: Orient Black Swan Private Limited, ISBN: 978-81-250-5125 1 (Hard Copy), Pages: 342, Price: Not mentioned.

Parimala Rao presents an anthology of nine essays on the history of Indian education addressing some lesser discussed debates and developments of Indian education. As is evident from the introductory essay, this book critiques the existing anti-imperialist, post-modern and nationalist historiographies of Indian education, and highlights the shortcomings of such approaches. The editor concludes that it is the duty of the historian of education 'to rescue from oblivion, those whose voices have not yet been heard and whose stories have not yet been told' (p.42).

The book comprises two parts – the first analyses different forms of discrimination in education; while the second part contextualises education vis-à-vis politics. In a remarkable space of 342 pages, the editor has done an enviable job, in putting together a wide range of less-addressed themes, including the scope of Dalit education and their initiatives, women's perceptions about self and education, and even the question of religious identity in Sikh and Arya Samaj schools of Punjab. Since, in every education system, there is an implicit or explicit political agenda, the second part of the book takes a closer look at the political agenda behind Missionary education, the question of promoting compulsory education within the discourse of the National movement, or presenting a critique of the Basic Education programme of Gandhi, or how the politicisation of education, as embedded in the school system, had even extended to the University level and, finally, the crucial changes that were ushered into the schools of Punjab during the late 1840s.

The first essay by Eleanor Zelliott examines the somewhat less-trodden field of Dalit education. For the early reformers, getting children from the untouchable community cross over the threshold of classrooms was a task not without its share of trials and tribulations. These pioneering men themselves hailed from diverse caste backgrounds. She underscores the initiatives taken by Jotirao Phule of Poona to unsettle the prevailing landed hegemony of the Brahmins in education. Jotirao's pioneering attempts were well complemented by Vittal Ramji Shinde, who headed the Depressed Classes Mission that eventually supplied important associates for Ambedkar and assisted in his mission of educating the Dalits and promoting their dignity and self-respect. The fact that the oppressions of the marginalised knows no boundaries, is well brought out by the next essay, where Laura Zenkins offers a comparative study between Dalit institutions in India, on the one hand, and Afro-American paradigms in the U.S.A and the all-black institutions of South Africa on the other. She argues that although there is a marked similarity between the two in respect of inter-related contexts and histories of education, the forms of discrimination were, no doubt, different. In the case of United States, the gradual but successful integration of black institutions into the mainstream during the twentieth century provided the necessary solution to an intriguing

problem. In sharp contrast, the Dalit Colleges in India were offering an exclusive space for the students; it held up a new hope for the Dalit community through new opportunities and resources. Noteworthy for its clarity and passion is the article by Radha Gayathri entitled 'Silent Voices: Women's perception about self and education in late nineteenth century India,' where the author focuses on seven outstanding women writers coming from different walks of life and regions of India. These early women doctors, lawyers, writers, social reformers and housewives had one common experience—they all 'trenchantly critiqued their contemporary social milieu' (p.91). Though these writers were often very radical in their views, they still tried to live their lives within the parameters of the existing ideology. Nevertheless, 'the works of Anandibai, Rukhmabai, and Haimabati speak volumes on the immense hardships faced by the first women who ventured into the male bastion of medicine' (p.118). Cornelia, the first woman lawyer, articulated the problems of the upper class and higher caste women, while working for the Pardanashins. Mahadevi's works spoke of the women from the lowest segment of society. Rokeya was the spokesperson for Muslim women. All these women addressed the issues of enforced widowhood, early marriages, female infanticide, purdah, widow remarriage etc.. The author highlights that 'they were most definitely among the first women to give voice to the needs and aspirations of the modern Indian woman...'. (p.119). However, since their outreach was limited, their voices remained largely unheard. Radha Gayathri, however, misses out the examples of a few significant contemporary women like Sarala Devi Chaudhurani, a niece of the poet Rabindranath Tagore, who became a pioneer social reformer and an educationist of Bengal, or Kadambini Basu, one of the first two female graduates of India, who, later on, became the first lady doctor and medical practitioner from Bengal. These women, unlike the women mentioned by the author, not only detected the ills that constrained women's lives but were also quick to suggest useful remedies to overcome them. The fourth essay by Dr. Mahima Manchandra explores the response of two pioneering girls' schools from Punjab, established by the indigenous reformers. The first one, Sikh Kanya Vidyalaya of Ferozepur (1892), became an arena where the larger questions of religiosity and identity formation came to the fore. It was trying to coalesce the two opposing binaries, i.e., the religious and secular, the traditional and the modern beneath one umbrella. The Kanya Mahaviyalaya at Jullundur (1896), on the other hand, was interested in developing the paradigm of an 'Arya woman', who would combine household chores with a knowledge of classical Hindi and Sanskrit literature. The author makes a very competent comparison of the courses of study offered by both schools and concludes that the purpose was, 'to create western-educated women who would emerge as good companions for their husbands and assets to their community' (p.145). Interestingly, such schools never motivated their students to look for employment but to stick to the societal norms for women to prove themselves as good mothers and good wives. These schools thus, to a large extent, conformed to the spirit of 'Victorian Womanhood', the clay-cast for the model educated Indian woman of the late nineteenth century.

The second set of essays, begins with an extraordinary analysis of primary education within the discourse of colonialism and nationalist politics by Dr. Parimala V. Rao. The author fascinatingly argues how, instead of advocating compulsory primary education, various Indian leaders made an effort to stall it and, more importantly, to control it in the name of defending Indian identity; in the process, it precluded the precious scope of ushering in a modern nation state in India. Rao argues that Tilak opposed a common



curriculum for the elites as well as the masses. According to Tilak, 'the lower classes should be trained as carpenters, blacksmiths, masons and tailors' (p.161). Those championing the cause of National education, such as, Aurobindo Ghosh and Bipin Chandra Pal supported 'denominational religious education along with secular subjects' (p.164). The author traces the opposition to compulsory education to some larger concerns like that of the question of procuring child labour or catering to the sentiments of patriarchy. Though Gandhi's Basic Education programme was rooted in Indian tradition, yet it failed to liberate education from the clutches of the state. The author, therefore, concludes that the failure to introduce free compulsory education in India was not due to poverty or colonial rule, 'but the refusal of the political leadership to place the nation's interest above the interests of caste and class' (p.175). The essay on 'Education, Missionaries and the Indian Nation c.1880-1920' by Hayden Bellenoit seeks to bring out the role of missionary schools as a site of interaction, wherein ideas of patriotism were articulated and contested. Hayden Bellenoit takes a closer look at the missionary schools where the missionary teachers often had a feel of the pulse of Indian society more effectively than any other European group, as a result of which Indian national and political sentiments could be moulded, expressed and even contested through this relationship. For example, the Swadeshi movement (1905) to them 'was an exercise in patriotism rather than purely bellicose anti-foreign movement' (p.184). The missionary teachers, though not overtly critical of the Raj, often came up with the defence of their Indian pupils, who were otherwise accused of engaging in seditious activities. Thus, the author presents an alternative view of analysing the relationship between education and colonial India, by focussing on the interesting dialogue between Christian missionary schools and nationalism. The authors of the seventh essay, Simone Holzwarth and Veronica Oelsner, attempt to draw up a comparative analysis of Gandhian strategies regarding vocational education with those of Juan Domingo Peron, the President of Argentina. They conclude that while Peron's aim was to minimise the dependence on British economic forces, Gandhi sought to eliminate British rule. In the case of Argentina, the post-Peronist regime saw a shift from vocational education to poly-technical education. For India, the trajectory was somewhat different, as Nai Talim introduced by Gandhi, never extended beyond the experimental stage, and totally disappeared from the official educational policy documents after 1964. That the politicisation of education at the school level was extended to the level of higher education as well, is stoutly defended by Suresh Chandra Ghosh, the author of the next essay. Making good use of archival sources, Professor Ghosh has argued that Viceroy Curzon intended to introduce radical changes in the functioning of the five existing Universities of Calcutta, Bombay, Madras, Lahore and Allahabad by means of the Indian Universities Act of 1904. As such changes entailed a through overhauling of the administrative machinery of the universities, it becomes pertinent to enquire as to why then the British administration did not abolish the universities altogether, since they had become breeding grounds for 'fighting cocks' that threatened the interests of the Ra. The author argues that while a host of the university-educated Indians manned the administrative machinery of the Raj, the educated unemployed were gradually becoming critics of the Raj. Curzon probably wanted to address this problem, by bringing higher education under the effective control of the government through the Indian Universities Act. The last, but by no means the least, is an essay by Preeti which looks at the transformation of the schooling system in colonial Punjab between 1854 and 1900. The author argues that the colonial officers, familiar with the western notions of schooling, systems of pedagogy, curricula,

language use, and infrastructure like classrooms, were critical of the indigenous system of education. As in other parts of India, here also the missionaries took up the cudgels of education. At the close of 1855, W.D. Arnold, took over as the first Director of Public Instructions in Punjab. The colonial state imposed standardisation and uniformity in education through the use of textbooks, examination system, providing classrooms and infrastructure and regular inspection. While this did reduce some of the disparities in the indigenous system, it also drove deeper wedges between the Vernacular and Anglo-Vernacular schools. Moreover, the system of measuring success or progress in the yardstick of examinations, or the creation of exclusive schools on the basis of gender discrimination, no doubt, gave rise to fresh debates and disagreements. There is no doubt that education was regarded as an instrument of progress both by the colonisers and the colonised. The present volume, by highlighting some of the less-attended debates and issues of Indian education, have thrown new lights on the form, content and the text of colonial knowledge. By dwelling on themes such as the introduction of mass and compulsory education and its political as well as nationalist response, the book has opened up new areas of research. However, an essay on Muslims and their education could have enriched the volume further and similarly a representation of Southern India, or the regional variations, could have added colour and dimension to the themes addressed. On the whole, the present volume will be immensely illuminating for both students and researchers and the general reader interested in probing into the evolution of modern education systems in India.

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MATHEW A. and TILAK Jandhyala, B.G. (eds.): *Literacy and Adult Education: Select Readings*, NUEPA and Shipra Publications, New Delhi, Pages 428, Price Rs 1900 (US \$ 95)

The compilation has made a bold attempt to stitch a panoramic view of a much publicized/debated programme of literacy and adult education in India, which has grown under the influence of well understood discourses on literacy and development and flurry of such activities throughout the world in the immediate past. The Editors have collected and classified the articles in a serious manner and organized their 21 chapters in five major domain of popular understanding, viz., Historical Context, Analysis of Literacy in India, Economic Aspects of Literacy, Literacy and Gender and Literacy Campaigns with an additional well worked out introductory chapter.

The first chapter of Part 1 has four sections: section one has made a good attempt to link the conceptual and definitional concerns in time and institutional spread but not without succumbing to the dominant perception of UNESCO; section two has made a valuable contribution in evolution of objectives and purposes of adult education; section three provides the policy trends in adult education at the global level and has noted the growth in concern and commitment of states in legislating in adult education, either as a discreet concern or as subsumed in overall general education; and section four makes a detailed note on Adult Education in India. This section could have been abridged a little to make a focused reading in view of the repetitions in other write-ups in the coming pages.

Next chapter on Literacy and the Concept of Adult Education: Colonial Context and the National Quest has been articulated in the historical context of dominant oral traditions in the pre-British era, a very slow expansion of reading and writing beyond religious literature and account-keeping later, and mass national awakening linked to literacy, development and democracy in the middle of the 20<sup>th</sup> century.

Chapter four of the compendium on Eradicating Illiteracy as Tool for Poverty Alleviation and Rural Transformation in Tanzania provides a good reading as the write-up is full of contemporary problems and influences of its nation-builder, Julius Nyerere, on its experiments on rural transformation, economic development and education movement.

Next chapter on Literacy Development in Asia: Problems and Prospects has listed some significant changes in service delivery mechanism in India in the form of volunteerism, urge for collective social and economic action, and filtration of use of modern technology from extensive users to no-user areas. The author cautions that unevenness of progress and increasing diversity calls for radically different strategy.

Chapter six to eleven, under Part II, are statistical analysis of the overall literacy scenario, regional inequalities, impact of primary education on literacy, trends and determinants of rural literacy among the Scheduled Caste population, inter-household and gender equity and literacy measurement and decomposition model of growth of literacy in India. The chapters selected are informative, exhaustive and carry forward relevant debates on literacy. These chapters include a focused argument on reducing the gap of male and female literacy (26.6% in 1981 to 21.6 % in 2001), improvement in overall literacy of men and women, an insight into why the absolute number of illiterate is growing continuously, scrutinizing the relationship of increase in literacy, rise in absolute number of illiterates and accelerated growth in population for pre and post-Independence periods, creation of helix of rising rate of adult literacy during the period of 1951-81, analysis of the regional inequality in literacy, its linkage with the variation to the local as well as national factors, use of various methods and their limitations in projecting the achievement of 100% literacy based on defined determinants, growth and problem of literacy among rural SC population, inter-household and gender equity concern, with emphasis on resource allocation and prioritization rather than measurement only, and a comprehensive study on decomposition model of growth of literacy.

There are only two chapters under Part III and three chapters in Part IV on two specific issues of economic aspects of literacy and literacy and gender. In the economic benefits of adult literacy interventions, the authors have attempted to bring out some tangible benefits out of literacy/literacies in a matrix framework, which are easy to understand by the literacy functionaries and place their experiences in the same order to further enrich the understanding. In the next chapter, the authors have used statistical methods for measuring the effectiveness of some determinants of functional literacy in improving their employability in the labor market. All three chapters under gender and literacy are exploratory and have been systematically used to put forward the arguments of changing the power relationship based on gender, enabling the system to use skills and capabilities in improving the status of women and empowering women with a view to enforce reform in education.

Part V contains six chapters on literacy campaigns in India, which includes organizational structure, its cost-effectiveness, experience of Kerala Literacy campaign, grassroots experience of a Madhya Pradesh district, renewing efforts to link elementary

education with adult literacy programme, sustaining literacy in a non-literacy environment and evaluating literacy campaigns.

The editors have indicated the limitations very clearly in the first chapter of this compendium, viz., that the papers selected for this volume have been drawn largely from the articles that had appeared in the *Journal of Educational Planning and Administration* and/or from the contributions of scholars associated in some way or the other with NUEPA (earlier, NIEPA). Fortunately, they have not shied away from citing and quoting appropriately from other write-ups as well. They quote "The Janata Government in 1978 brought about a radical shift in the concept of literacy and development with emphasis on redistributive justice and eradication of illiteracy" (page 5). It seems authors are very clear in articulating that the fundamental shift in adult education is owed to NAEP. They also culled a relevant reference from National Curriculum Framework for Adult Education, 2011 which reinforces 'Systems are to be in place to build a nation that builds citizenship which is truly informed and literate'. This, again, is a reiteration of the commitment made in NAEP.

While attempting to review this compendium, it has been observed that the collections are good and has been done meticulously, a work which was, by no means, an easy task. Some of the papers are excellent and very technical in nature and have been accommodated with the purpose of furthering the cause of higher level debate to follow. The classification/grouping could, alternatively, have been done differently under four parts of general education and literacy, economic aspects of literacy, sector specific literacy programmes (gender, rural, SC, etc.) and literacy campaigns.

Reviewing a compendium of this size and nature is always a hazardous task. Nevertheless, it has been attempted for acknowledging the efforts of two brilliant academicians of the country.

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STÉPHAN Vincent-Lancrin, KIIRA Kärkkäinen, SEBASTIAN Pfothenauer, ADELE Atkinson, GWÉNAËL Jacotin and Rimini MICHELE (2014): *Measuring Innovations in Education: A New Perspective*, OECD Publishing, ISBN: 9789264215696 (E-Book PDF) Pages: 332, Price: US \$ 78

Given the need for adapting to the societal and environmental changes, innovations play an important role in education, especially as a public service. The new report released by OECD, titled *Measuring Innovations in Education*, is a detailed account of innovations in education in OECD member countries. It is informative and provides information on new international comparative information about innovation in education from 1999-2011 as well as comparison with other sectors.

Many among us know well that the term innovation has been studied extensively. This domain is replete with literature and frameworks available on innovation in the business or

private sectors because of need for growth or sustenance of the business in a highly competitive environment. However, there is no such pressure on public services like education and health. But recent initiatives show that there are shifts among policy-makers and implementers to measure innovations in the social sector (or public services) such as education. The report identifies many reasons as to why measuring innovations in education is important. For instance, it suggests that innovation can improve the learning outcomes and can also bring efficiency in the provision of education services besides enhancing equity in the access to and use of education. The report has attempted a framework for measuring educational innovation, nonetheless with some cautions.

The research takes into account a definition of innovation from the Oslo Manual (OECD) to avoid ambiguity in the minds of the users. It stresses on implementation, with a focus on new or significantly improved product or process, a new marketing method, or a new organizational method in business practices, workplace organizations or external relations. The report defines innovations in education around: (a) *new products or services - new syllabi, textbooks* (b) *New Processes - such as use of ICT* (c) *New ways or methods of organizing their activities* and (d) *New marketing techniques*. But there is a possibility of challenging this definition and perhaps for this reason, the present study cautions that the notion of improvement in public services, including education, can be elusive.

The newness of this report also extends to the use of its approaches for measuring innovation. It uses two broad approaches for measuring innovation. On the one side, it takes an *innovation survey approach* i.e. adaptation of innovation surveys to the education sector and on the other, it takes organizational change approach i.e. adaptation of organizational change surveys to the education sector.

The report provides a comparative analysis of innovation in other sectors with innovations in education. Compared to other sectors, innovations in education is high on knowledge and method innovation (above average), followed by technological innovation (average) and product or service innovation (below average), in that order. It also points to the prevalence of highly innovative workplaces in higher education than at either primary or secondary level. The findings also indicate that employee participation in innovation in education is more common as compared to other sectors. However, the report lacks rigour in capturing systemic and process reforms in the larger system.

In terms of innovation as change in classrooms and schools, the report highlights that very little change has occurred in terms of prevalence of lecture style presentations in the fourth and the eighth grades. However, it mentions that there is a significant increase in other pedagogic activities such as relating lessons to real life, which indicates towards developing higher order thinking skills. One important thing to note here is that the authors have taken a balanced view to present the pictures related to innovations in education. For example, the report examines both increased and decreased use of textbooks in the classroom, i.e. textbook as a primary as well as supplementary resources, as innovation in classrooms. On the one extreme, it does not ignore small things such as use of computer as one of the innovations in education and, on the other, it discusses the use of data analytics for comparing and giving feedback to schools or teachers, especially for accountability purposes. There is significant learning for the countries in the Asian subcontinent. Surprisingly, the Asian countries like Indonesia and Korea are among the top rankers in innovations at the classroom and school levels in primary and secondary education, while

countries like the United States and New Zealand feature among the least innovative countries.

For long, student assessment has received policy impetus in many countries. It is interesting to observe in the report that student assessment as a major pedagogic innovation in both primary and secondary education, with considerable change in assessment methods—both test and non-test based methods. The report also emphasizes that in terms of organizational change, constitution of professional learning communities (PLCs) is a critical driver for innovation and improvement in teaching practices. The past researches on the importance of PLCs in countries like Japan and Finland support this finding. Increasing focus on the community and parents in countries like India can get a fillip to their efforts in this direction as the report highlights that the significance of new relationships with external stakeholders such as parents, employers, funders and public at large as one of the organizational innovations.

The reports informs about some (even ongoing) efforts in measuring public sector innovations which can be useful for the future researchers in this space. For instance, the National expert on Science and Technology Indicators (NETSI) is working on the development of a new framework for public sector innovation. In the past, the Australian State of Service Agency and employee surveys tested a module on innovation covering all agencies and a sample of employees for all agencies. One more research Measuring Public Innovation in Nordic Countries (MEPIN) proposed a methodology and the first pilot for measuring innovations in public services in Denmark, Sweden, Norway, Finland and Iceland. The EU Innobarometer, 2010 provides interesting information on innovation in public administration, including education, as well as a questionnaire adapting traditional innovation surveys to the public sector. In the domain of organizational changes efforts, it captures the MEADOW project (Measuring the Dynamics of Organization and Work, [www.meadow-proeject.eu](http://www.meadow-proeject.eu)) that has set out guidelines for collecting and interpreting harmonized data at the European level on organizational changes as well as their social and economic impacts.

One of the best parts of this report is elaborate explanation of its limitations. These include the identification of the major relevant educational practices and innovations internationally because innovations in pedagogic and school practices are neither similar nor synchronous in different countries. Another limitation is related to appropriate reporting of pedagogic practices and of their occurrence in the classrooms. Then there are challenges in linking change (innovation) and outcomes in a satisfactory manner, which is ubiquitous in all the social innovations.

Overall, this report sets a direction that can be a building block for the future studies on innovations in education or, for that matter, other public services.

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THAPAN, Meenakshi (ed.) (2014): **Ethnographies of Schooling in Contemporary India**, New Delhi: Sage Publications, Pages: 368, Hardbound; ISBN: 978-81-321-1385-0, Price: Rs 895.

Ever since the fields of anthropology and sociology of education started gaining momentum in India, a dearth of literature, that primarily focuses on school ethnographies, continues. Though there have been studies on schools from various perspectives, an anthology of ethnographies of schools is, undeniably, a need of the hour. In this context, Meenakshi Thapan's edited volume *Ethnographies of schooling in contemporary India* is not only timely in filling this long existing void, but also breaks new grounds in the discussion of processes within the schools and the ways students experience them.

The chapters in this volume are the output of a project undertaken at the Department of Sociology and funded by the University of Delhi to study different schools in Delhi, Ahmedabad and southern India. This collection makes a significant contribution to our understanding of what goes on inside schools and classrooms everyday. Comprising eight chapters, this book specifically raises and, for the most part, lucidly addresses practical and theoretical questions of school and student culture and their influence on construction of the idea of citizenship. The articles in this volume are not only comprehensive and thought-provoking, but the authors have put forth students' voices to understand the influence of popular culture and the ways they are engaged in schooling processes.

Apart from focussing on student culture, the book also highlights the significant role of teachers and the ways through which the schools contribute to developing a sense of citizenship among the students. Though fieldwork is carried out in different types of schools in Delhi, Ahmedabad and Andhra Pradesh, four out of eight chapters are based on field work in Delhi, one chapter draws a comparison between a government school in Delhi and schools run by Muslim trusts in Ahmedabad while the rest of the two chapters are based on ethnographies of schools, one each in Ahmedabad and Andhra Pradesh. The final contribution to this volume is based on autobiographical approach of the schooling experiences of the authors. In all the chapters, the authors do not deviate from the main focus of the book and the essence of every chapter remains the same – understanding schooling experience of students and how they are shaped with activities and events within and outside the institution.

The introductory chapter on *Understanding school experience*, written by Thapan, sets the context for the rest of the chapters. The chapter is intriguing as it has a dual focus of underscoring the theoretical base of schooling processes and, at the same time, taking the reader through the rest of the chapters. The author aptly points out that the understanding of the experience of education in the backdrop of access, quality and equity in school education is very much essential (p.5). Thus, she highlights the significance of not only meaning making by the actors within the schools but also examining the social and political contexts of such meaning making. She further argues that understanding student culture, in the backdrop of popular culture, consumerism, religion, and student's agency, are of paramount importance.

What follows the introductory chapters are series of chapters that are primarily ethnographic and immersed in fieldwork. The first chapter titled *Negotiating school and gender: Peer performatives*, by Anuradha Sharma, is based on a co-educational private

school in East Delhi and focuses on the significance of peer group in the student culture, particularly the gendered nature of peer relations. Studying gender relations among peers in different contexts, Sharma points out that gender identities are crafted and expressed openly only among the peers (p.27).

Moving the focus away from gender, the second chapter, by Maitrayee Deka on *Schooling and the production of student culture*, attempts to examine the extent to which the ideas of citizenship and 'Indianness' impacts the students in a public school in Delhi. The crux of the chapter lies in understanding the extent to which the principles of the school are contested or adhered to by the students in the process of promoting Indian culture and traditions. Citing numerous examples and instances, Deka explicates the fact that the minimalist consumption behaviour promoted by the school is met with strong resistance from the students, who view the various practices as empty rituals (p. 100). Continuing the focus on citizenship further, Anannya Gogoi's chapter, based on a narrative of a government school (Kiranjyoti Vidyalaya) in Delhi, emphasizes on practices in schools that seek to develop citizenship ideals among students. In both the articles, the authors reiterate the practice of consumerism among the students as an important aspect in the student culture and its repercussions on the overall ideology of the school.

Further reinvigorating similar vein, Thapan's chapter *Schooling, identity and citizenship education* highlights the difference between schools' efforts to instil specific ideals of citizenship and the students' constructions of the same. The relationship between schooling, citizenship and identity is examined by the author in a government school in Delhi and two schools in Ahmedabad run by private trusts. Viewing citizenship as a social process, the author puts forth the argument that awareness of the rights and injustices that others experience are equally important and fostering the values of compassion and empathy are significant components of citizenship education.

The religious identity, which the school wants to instil among the students, and the students' experiences are well dealt with in two chapters. One is titled *In Quest of Identity* by Parul Bhandari, who studied an all-girls Christian school in New Delhi, and another chapter authored by Tanya Matthan, Chandana Anusha and Meenakshi Thapan titled *Being Muslims, Becoming Citizens*, based on an aided secondary school for Muslim girls in Ahmedabad. The dynamics of the Christian identity of the school and its values of citizenship are the main focus of Bhandari's chapter. The ethnography unravels the dynamics between Christian identity of the school and its attempt to impart citizenship education (p. 184). The author concludes by stating that for a school with religious affiliation, imparting civic and citizenship ideals is very challenging as the school is confronted with its own ideals and secular expectations which are not complementary (p. 223). The chapter by Matthan et al is very thought-provoking and focuses on citizenship education in the backdrop of the 2002 riots in Gujarat. The authors examine the ways in which the school has been shaped by the 2002 communal riots and how the students imbibe the aspects of civic, political and cultural citizenship.

One of the interesting chapters in the volume is *Living in the bubble* by Bhavya Dore in which the author views the life of students at Rishi Valley School as a separate bubble, creating a unique kind of student culture. Dore argues that the school's philosophy of shielding students from competition, marks, examination and consumerism in order to develop them fully as a human being is problematic as students, explicitly or implicitly, embrace some of the mainstream values, depending upon the context. The last chapter in the



volume focuses on individual school experiences of the authors through autobiographical writing and narratives with the aim of understanding schooling processes from the remembered experiences of adults as students. It is, undoubtedly, a welcome departure from the stereotyped schema of book-writing.

Though the book is quite comprehensive, offering thick descriptions of the schools under study, there remain certain reservations. The rationale behind selecting three states, i.e. Delhi, Ahmedabad and Andhra Pradesh, is not very clearly mentioned. The volume could not only have covered schools from other states but also some other kinds of schools, which is also recognised by the author (p.12). Moreover, though students' agency is one important focus of the book, inclusion of the ways in which students exhibit overt resistance of the school norms and ideologies, which, in turn, result in the formation of student sub-cultures could have made the volume even more interesting.

Nevertheless, these minor reservations do not diminish the overall value of this volume. The aim of the book, to understand meaning and meaning making in schooling processes in India, has been achieved to a great extent. Taking both school and non-school factors into consideration, the authors have beautifully depicted the numerous ways in which students are engaged in the schooling processes.

On the whole, *Ethnographies of Schooling in Contemporary India* is an interesting contribution to the field of anthropology and sociology of education and the editor has been successful in filling the gap existing in these fields. The volume contributes greatly to our understanding of functioning of schools under different backdrops and student's negotiation with the overall ideology of the schools. The book will be of immense significance to scholars, academicians, and school managers interested in understanding the processes within the school and classrooms.

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GOODMAN, Roger, Takehiko KARIYA and John TAYLOR, eds. (2013): *Higher Education and the State: Changing Relationships in Europe and East Asia*, (Oxford Studies in Comparative Education: Series Editor: David Phillips). Oxford: Symposium Books, pp. 269, (paperback), ISBN: 978-1-873927-76-2

Conventionally the role of the state is defined to be very crucial and all-pervasive in the sphere of education, including higher education in particular. During the post-War period, higher education systems are developed and strengthened in many countries by active involvement of the state in policy making, planning, delivery and management of education services. This is true not only in case of countries in the socialist block but also in case of all others. Even when education was provided partly by a tiny private sector, this was also supported financially and otherwise by the state and the state has ensured that it also serves the social purpose. In a sense, education had been the state-monopoly. The relationship between the state and higher education was built on certain unwritten social contract: state funds higher education as it is a public good, and in return the universities produce public goods in abundance – good citizens and quality manpower needed for the society; state is

committed to autonomy and complete academic freedom to universities so that knowledge is created and distributed unfettered; promotion of equality of opportunity is an important obligation of the state and higher education is a major avenue to do so; and so on. These principles have been at the bedrock of the development of modern higher education in Europe and North America and in the ancient systems of higher learning in other world regions; and the same feature in the contemporary models of higher education in the developing countries, as many of them have been imported from the West/colonisers.

However, this is no more the case. The situation has considerably changed during the last quarter of the 20<sup>th</sup> century. The introduction of globalisation and neo-liberal economic policies has resulted in redefining the role of the state in higher education. The emergence of markets in a significant way in the last few decades has very a serious impact both on the state and higher education institutions. The state has withdrawn from higher education in a very significant way. Today the state is withdrawn to an extent that even anarchists would not have dreamt of. The emergent roles of the state and universities are not an answer to some of the rigidities of the long existing models. Higher education is marketised and strong education *bazaars* are emerging. Laws of markets have become sacrosanct in the sphere of education. The earlier held principles are no more found to be valid; the nature of higher education itself is redefined. As Goodman describes in a chapter in the book under review, the relationship between the state and higher education institutions “is currently going through possibly its most radical reform process ever” (p. 41). The influence of the state on higher education and in turn the influence of higher education on the state – both of which were somewhat simple to understand in earlier periods, have become quite complicated in the neo-liberal reform process. Christian Galan rightly notes that “it is not so much that the state is reforming higher education, but that the state is being reformed in ways which affect higher education and the whole society” (p. 123). Both the state and higher education are being increasingly “discredited and depreciated”; ‘society’ itself is never consulted; and terms like ‘people’, ‘society’, and ‘citizens’ seem to be bad words for neoliberals and they are rarely used in the policy discourses.

The changing relationship between the state and higher education has attracted the attention of many researchers in comparative education. Based on the presentations made in a two-day workshop on the ‘Role of the State and the Future of Higher Education in the UK, Japan and Continental Europe’ held at the University of Oxford in 2011, the book presents a series of papers that explored the relationships between the state and higher education in a few selected countries in Europe and in East Asia. Neither in Europe nor in East Asia, are the changing relationships uniform in all countries. However, one remarkable feature is convergence of many countries on a neo-liberal model of development of higher education. What Ivor Crewe stated about the United Kingdom is applicable to more or less all the countries under study: “the history of relations between the (UK) state and the (Academy) [higher education] in the past half century is the story of the state’s ceaseless attempt to reconcile inherently irreconcilable objectives for a mass higher education system in a liberal democracy with a market economy and competitive party system” (words in [ ] added) (p. 79). The book gives us a few country case studies and a few comparative studies. The dozen chapters together form a very valuable reading on the changing nature of higher education and the role of the state, and the interplay between the two.

The three chapters in the first section of the book provide the context and comparative perspectives on the location of higher education in the sociopolitical and geographical

contexts in UK, Japan and Korea. The second section, with two chapters, focus on the developments in the UK – particularly State-Academy relations by Ivor Crewe, and ‘binary dilemma’ – traditional versus new emerging pattern by David Watson. There are three interesting country studies in the third section dealing with reforms in higher education in continental Europe, viz., France, Germany and Italy. Japan and Korea form the content of the four chapters in the final section. The book ends with a short reflective ‘afterword’ by Ronald Dore. Apart from Roger Goodman, though some scholars have attempted to provide comparative pictures, the book largely provides very good useful and insightful country studies, from which valuable lessons can be learnt by other countries.

In Britain the reforms started in late 1980s with Margaret Thatcher introducing a series of market reforms. Thatcher strongly believed that government funding of higher education should be kept at a minimum. In a sense, this marks the beginning of introduction of neo-liberal reforms, particularly reducing in the role of the state and public funding of higher education systems in the world at large. The Bologna process expedited the reforms in many other European countries – reduction in state control and rise in the role of market and market-related structures. However, it must be mentioned that “the process of adaptation to new financial, political and social conditions has been particularly slow and sluggish” (p. 164) not only in Italy as Paola Mattei argues, but also in countries like Germany, and France as the accounts provided by Christian Galan and Hubert Ertl on France and Germany respectively reveal, and in other countries in Europe, compared to East Asia and countries in other continents of the world. We find the pace of reforms being much higher in the East Asian countries like Japan, Korea, China and Malaysia.

With a large proportion of private universities, Japan and Korea present a contrasting situation to the rest of Asia or even East Asia in development of higher education and with respect to the role of the state vis-à-vis universities. Similarly the relationship between the state and higher education in the UK varies vastly with the rest of Europe. So the present volume that focuses on Korea and Japan on one side and the UK, and the continental Europe – France, Germany and Italy on the other – in all six different national settings, and provides a good contrasting, though limited, picture of the changing relationship would be of considerable interest.

The nature of the relationship between state and higher education in UK and continental Europe differs significantly with the changing relationship in East Asian countries. Though public expenditure on higher education was under strain in UK and other European countries, private universities have not come up in big numbers in continental Europe and even in UK. But different kinds of universities came up post-1992 in UK, as David Watson highlights. Reforms in UK revolve around funding. Student fee was raised, now to £ 9,000. Universities are required to adopt forms of governance that are considered good practices in the corporate sector. State issues guidelines on almost all aspects of university management. As Crewe notes, “almost no aspect of university management escapes detailed guidelines of good practice issued by national agencies, which are then used as the basis for public audits” (p. 85). In France, fee increase has been more difficult. The chosen strategy is “to make universities increasingly different and local” forcing universities in the loser group to fend for themselves, and for the state to control and fund only better performing universities.

In Germany private universities have not come up. But the Bologna declaration itself has far reaching effects on the development of higher education. Hubert Erl concentrates on this and the post-Bologna process. The post-Bologna reforms, according to Erl, have moved

German higher education somewhat from state control towards the market. Instead of direct state regulation by the state, competition between institutions has increased, and this determines to a larger extent the flow of public funds and of students. Quoting other studies, Erl also shows that the deregulation and differentiation tend to displace harmonization and legal homogeneity as the guiding principles in higher education in Germany. In short, “the picture of German universities being run by equal, strong professorial chairs, a picture that has characterised German higher education in Humboldt’s time, has changed fundamentally” (p. 147). There is a shift in power from states to the federal government. At the same time, there has been increase in self regulation, but the self regulatory powers are not exercised by strong professorial chairs, but “increasingly hierarchical higher education institutions and academic umbrella organizations” (p. 147). Erl is not sure of the consequences of these several developments.

The governance of the Italian higher education system was historically dominated by collegial decision making processes like in Germany and now like in Germany and other countries, reforms have been introduced to strengthen the managerial role of university administrators and executive bodies in the internal governance structure of universities. Three major reform packages have been introduced. They refer to autonomy, introduction of private sector management practices and new patterns of public accountability and evaluation. Paola Mattei describes the Italian situation as reflecting ‘dynamic conservatism’ – policy immobilization and administrative resistance to change, fighting to remain the same. Many reforms have been introduced; however, most reforms remained incomplete. Making a somewhat less critical analysis of the reforms, Mattei laments the non-implementation of these reforms. Like in many other countries, implementation of reforms depends on bargaining between not only academic profession and the state and on alliances and between different actors with conflicting aims and objectives that Mattei recognizes, but also on the role played by the third actor in Burton Clark’s ‘triangle of coordination’ in university systems, viz., the market.

During the neo-liberal reform process many important questions are often raised in European countries, which are sometimes missing in the discourses in East Asia and other countries. The questions raised in France (and other continental European countries), as Christian Galan mentioned (p. 123), include: what is the ultimate goal and purpose of university? Is university a public (in French and republic sense) service, or is a market? Is it based on the creation and transmission of scholarly knowledge, or is its role to provide mass education? And if so, to what extent? Or is the university a provider of education services adapted to its users’ needs and equipments? These are relevant questions that bother almost everyone seriously interested in higher education in every country in the present neo-liberal era.

Japan and South Korea, characterised with a very high degree of private higher education along with a strong state, present a contrasting situation to the continental Europe and even rest of Asia, including East Asia. In Japan an important development has been the incorporation of national universities – all universities became national university corporations; and government control was diluted and the universities were allowed to function in the political climate of deregulation, as Motohisa Kaneko describes while presenting an interesting account of reforms in Japanese higher education. As Aya Yoshida describes in another chapter on Japan, the new system marks the end of egalitarian policy in higher education in Japan. That is the most serious casualty of neo-liberal policies

everywhere. Kaneko also states that Japanese experience is different from that of the US and the UK. In the US increased role of the market was induced by government policies; and in case of Britain it was clearly planned by the government. In Japan, the government is politically committed to higher education reforms, yet there were no reforms comparable to Britain or the US. In yet another study on Japan, Takehiko Kariya describes 'trilemma' faced by Japan with respect to equity, quality and cost-bearing in higher education. The detailed study leads Kariya to conclude that expansion of higher education coupled with limited government investment will fail in all respects, viz., equity, quality and finances. Further, even when higher education expands reaching nearly 80 per cent gross enrolment ratio, issues relating to the role of the state remain crucial and pressing.

Unlike in Japan and several other countries, private universities in Korea are not necessarily much lower in status than public universities; they receive huge corporate funds and some of them figure in world university rankings. As emergence of private universities is not a new phenomenon in Korea, Terri Kim observes that the relationships between the state and universities remained unchanged since 1997-98. Strong political commitment of the state to higher education in Korea is also evident in the launching of several projects aimed at high quality higher education by the government, including the world-class university project. However, it must be noted that the governments both in Japan and Korea relinquished some of their hold on universities. In both countries "the language as well as the ideology of reform is itself remarkably similar" (p. 41).

Many developing and developed countries are undergoing similar reform processes. Many interesting evidences could be drawn from other countries. But the focus of the book is somewhat narrowly defined to confine to UK, a very few selected continental European and a couple of increasingly marketised East Asian countries. USA is also not included. That's of course, not a serious drawback. It is also not attempted to draw what other countries can learn from the experience of the selected countries. On the whole, simultaneously published in the journal, *Oxford Studies in Comparative Education* (Volume 22 number 1), *Higher Education and the State*, with a dozen chapters authored by as many scholars, is a valuable read for students, researchers and policy makers in higher education.

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<b>Journal of Rural Development</b>		
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