

Chapter 2

Demands and Policies for Higher Education

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2.1 Introduction

Access to higher education has been growing dramatically across the world since World War II. In 1900, there were about 500,000 students worldwide pursuing higher education; by 2000, they were about 100 million (Schofer and Meyer 2005). In 2011, according to UNESCO's Institute for Statistics, this figure had reached 190 million. Between 1940 and 1960, the number of such students worldwide increased from less than 20 to 40 per 10,000 of the population. Between 1960 and 1980, it more than doubled to 85 per ten thousand, and doubled again in the year 2000, surpassing 160 per ten thousand. This expansion is sometimes explained by the growing demand for high quality human capital in modern economies, but this functionalist interpretation is insufficient. Expansion occurred in both developed and developing economies with most of this growth taking place in nontechnical fields such as the social sciences and the humanities; consequently, in many countries higher education graduates are finding it difficult to get jobs and have to take up occupations requiring lower qualifications or migrate to other countries. Still, the private returns to higher education, compared to those completing only secondary education, tends to be higher in developing countries than in mature economies, making the incentives for achieving higher education very concrete.

Summarizing the detailed analysis of global evidence, Schofer and Meyer (2005) offered as an explanation the combination of different factors. For them, after the Second World War a new model of society became institutionalized, "reflected in trends toward increasing democratization, human rights, scientization, and development planning. This global, institutional, and cultural change paved the way for hyperexpansion of higher education" (p. 900).

The expansion of democratization and human rights, associated with the growing access to mass communications, corroded the traditional acceptance by the

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populations that societies were naturally stratified in terms of wealth and opportunities, that each person had a predefined place in the social hierarchy, and that knowledge and wisdom was a monopoly of a few. Now everyone could aspire to everything and education is perceived as a channel for social mobility and equity. “Scientization,” the growing belief on the importance of scientific and technical knowledge for better public policies and the growth of wealth, does not mean that modern societies require everyone to become a scientist. “Development planning,” the notion that societies should plan their economy, and, accordingly, the development of its human resources, was adopted initially in the Soviet Union and later in other Communist states, and copied to a limited extent in a few other countries such as France and Brazil, but never acquired much relevance except in centrally planned economies.

These notions did not lead to significant demands on the higher education sector to deliver more scientists and planners, but helped to spread the general perception that societies needed to provide more support and allow higher education institutions to expand. More significant, perhaps, was the role of global institutions such as UNESCO and the World Bank, private institutions such as Ford and the Rockefeller Foundations and many international agencies created in the developed countries after the World War (such as CIDA in Canada, ORSTOM and the French Development Agency in France, GTZ in Germany, USAID in the USA, DFID in the UK, SIDA in Sweden, and others) to deal with the postcolonial countries and bring to them the gospel of education. For many of these agencies, the priority was not higher education as such, but basic literacy and secondary education; but the sheer expansion of general education increased the demand and aspirations for higher levels of learning. More important than anything else, perhaps, was the extraordinary economic growth of Western Europe and the USA, shortly after the Second World War, associated with the expansion of the welfare state, creating a wave of optimism that swept most of the world. If the developed countries could do it now, then for sure the developing countries could also do it in the near future. As Tony Judt described it:

The state thus lubricated the wheels of commerce, politics and society in numerous ways. And it was responsible, directly or indirectly, for the employment and remuneration of millions of men and women who thus, had a vested interest in it, whether as professionals or bureaucrats. Graduates from Britain’s leading universities, like their contemporaries in French *grandes écoles*, typically sought employment not in private-sector professions, much less industry and commerce, but in education, medicine, the social services, public law, state monopolies or government service. By the end of the 1970s, 60% of all university graduates in Belgium took up employment in the public services or publicly subsidized social sector. The European state had forged a unique market for the goods and services it could provide. It formed a virtuous circle of employment and influence that attracted near-universal appreciation (Judt 2006, p. 362).

It is this optimism and expanded aspirations, the new education and scientific gospel and the influence of global institutions that combined, explain how the expansion of higher education became a universal phenomenon, which also occurred in the BRICS, but with different timings and intensities, and leading to different responses.

The expansion not only meant that more and more people entered higher education but also that they wanted university degrees, to the detriment of vocational and technical education, which were considered less prestigious and rewarding. The consequence was a trend toward “academic drift,” with different types of institutions striving to get university status for themselves and their students (Neave 1979; Van Vught 2008). They aspired not only to the degrees, but also to the market and professional privileges associated with their formal qualifications and considered access to higher education as a right or entitlement to be provided by governments, if possible for free. In societies marked by cultural, ethnic, and linguistic cleavages, the drive for access to higher education often took the shape of demands for cultural and ethnic compensation or special support, to redress historical cleavages so often related to unequal access to educational opportunities and achievements. Another consequence was the spread of academic corruption, with the development of grey or black markets for university access, degrees, and certifications (Heyneman 2007).

None of the governments could attend to all these aspirations, because of growing and unlimited costs and the fact that education is, to a large extent, a “positional” good, in the sense that the advantages of some depend on their relative standing in the educational hierarchy compared to others (Brown 2003; Hollis 1982). Although the social standing, benefits, and job opportunities created by higher levels of education is, to a significant extent, a function of privileges granted to the holders of education credentials (Collins 1979), it depends also, in the long run, on the holder’s productivity and the willingness of society to pay for them. As the demand for higher education increased, governments had to pay more attention to how much it was costing and to the benefits it brought to the society.

The responses varied depending on the history, culture, and political regime of each country, but all of them had to face similar problems, including the scarcity of resources and the need to make sure that public and private monies were not being wasted in an oversized Ponzi scheme. They had also to contend with the political power and influence of academics, students, and public employees, very often associated with unions and associations, having strong links with local governments, political parties, and social movements. In all countries, governments oscillated between granting more autonomy to universities or bringing them under tighter control; into pressing them to look for resources in the market or providing them with more public resources; into granting them equal status or selecting a few for higher missions and greater public resources; to require them to link more strongly with the productive system or to allow them to define their own goals and orientations in teaching and research. It is possible to summarize the policy dilemmas in five broad issues: how to deal with the expansion, equity of access and diversification of enrolments, participation rates, number, and types of institutions; how to deal with the fiscal limitations, particularly during periods of economic stagnation or decline; how to regulate the growing market for private higher education; how to make the higher education institutions more accountable to their students, employees, and to the society as a whole; and how to improve and maintain the quality and social relevance of learning and research in higher education institutions (Johnstone et al. 1998, p. 2).

2.2 The Russian Federation

While Brazil, China, India, and South Africa started the expansion of higher education in the late 20th Century from a very small basis, Russia inherited a very elaborate system of higher education from the Soviet Union that was deeply transformed and became more similar to those in the other countries after 1990.

The Soviet Union was perhaps the extreme attempt ever to manage higher education through manpower planning, according to the functionalist understanding of higher education as a factor of production. Most higher education institutions were linked to specific industries, the government would establish what should be produced and by whom, and prepare the human resources needed to achieve the desired outputs. Priority was given to technical personnel, but the soft sciences also had a place. As described by Isak Froumin and Yaroslav Kouzminov in Chap. 6 of this volume, “each important development in the national economy, as well as social and political life was accompanied by a corresponding development in the higher education sector. For example, after the Second World War the government set up ‘communist party schools’ for training party apparatus and state machinery. Besides, the Academy of Social Sciences was established for training ideologists and social scientists. These institutions had the status of universities. Special institutions were set up for training specialists in diplomacy and foreign trade. Soviet nuclear production and space development programs led to the establishment of two elite universities: Moscow Physics and Technology Institute and Moscow Engineering and Physics Institute and quite a few engineering universities and departments specializing in nuclear physics and space research.”

This meant also that, in principle, students did not have to look for jobs: they were assigned to work in the region and sector to which they graduated, without much choice. This functional arrangement was associated with a clear hierarchy of universities: national sectoral universities, linked to specific branches of the economy (e.g., transportation, mining), often subordinated to the specific sector ministries; regional sectoral universities, linked to their respective national institutions; and more traditional universities destined to train local political elites and teachers. In comparative terms, the size of the Soviet higher education sector was not very different from that of the developed countries in the West: 4900 students per 100,000 population in 1990, compared with 4000 in Canada, 3400 in Finland, 3500 in the UK, and 5000 in the USA (UNESCO’s Institute of Statistics).

This complex arrangement was already under strain in the 1980s, given the failure of centralized planning. With the collapse of the Soviet Union and the introduction of the market economy, the Russian government had to “reinvent” higher education, as described by Mark S. Johnson in this volume (Chap. 15), in an erratic behavior that went from attempts to grant the universities full autonomy and leave them open to market competition, to attempts to regain full centralized control of the higher education sector. The demise of centralized planning meant, first, that the amount of money to support higher education was drastically reduced; and second, that the traditional manpower planning approach could no longer be used to set priorities that could guide the allocation of existing resources.

In the first 10 years after *Perestroika*, the Russian government allowed higher education to expand with little or no effort to drive it to a specific direction, without much interference and with dwindling support. After 2000, however, under President Putin, higher education gained priority, absorbing 23.1 % of the country's education expenses, up from 16.1 % in 2000, while expenditure per pupil as a proportion of GNP per capita went up from 10.9 to 14.2 % (UNESCO's Institute of Statistics). This new emphasis was associated with several attempts to introduce quality assurance mechanisms and increase the role of the central government in the steering of the higher education sector. The new measures included a sharp differentiation between federal and local institutions, the establishment of a unified entrance examination for higher education in specific fields, and competitive funds for research and innovative institutions. Institutions were also persuaded to work together with public and private corporations, to introduce business-like managerial practices and to look for additional sources of income besides those coming from the government. In recent years the government moved toward the creation of a three-tiered system of higher education institutions. At the top, there was a small number (10–15) highly competitive, federal, and world-class universities. Secondly, 150–200 regional universities were supported mostly by regional governments; and a third tier of institutions were left on their own and destined to disappear eventually. There was also a movement to link the top universities with the research establishment based on the Academy of Science, and to bring Russia closer to Europe, the country joined the Bologna Process of higher education reform (Fig. 2.1).

While, in the Soviet period, most students were directed toward studies in engineering, production, and construction, now about half of them are in the humanities, social sciences, business, and law. On average, a university degree still means a significant increase in salaries compared with those with secondary education (98 % for men, 55 % for women according to one estimate) (Gerber and Schaefer 2004) and also a protection against unemployment, meaning that the demand for higher education is not likely to taper off. There are important differences however, depending on the prestige of the institutions, the specialty, and gender, with the higher benefits accruing to men who are able to be admitted to prestigious institutions and to study full-time and for free.

The Russian Federation is a multinational society, with almost 200 recognized ethnic groups and more than 50 minority languages. One would expect large differences in access for members of non-Russian minorities and residents of faraway regions to higher education, particularly to the most prestigious universities of Moscow and St. Petersburg. However, the existing statistics and documents related to Russian higher education seldom mention these differences, giving an image of social homogeneity and equity of access that is clearly misleading.

This is an ongoing process and its outcome is not clear. Summarizing his detailed overview of these policy changes and initiatives, Johnson writes that “the cumulative effect of these ambitious reform initiatives and new state investments is that while the ‘modernization’ of Russian higher education is neither as coherent nor as successful as the authorities and university leaders often seem to assert, there are,

Russia, Enrolments in Higher Education, 1971-2009

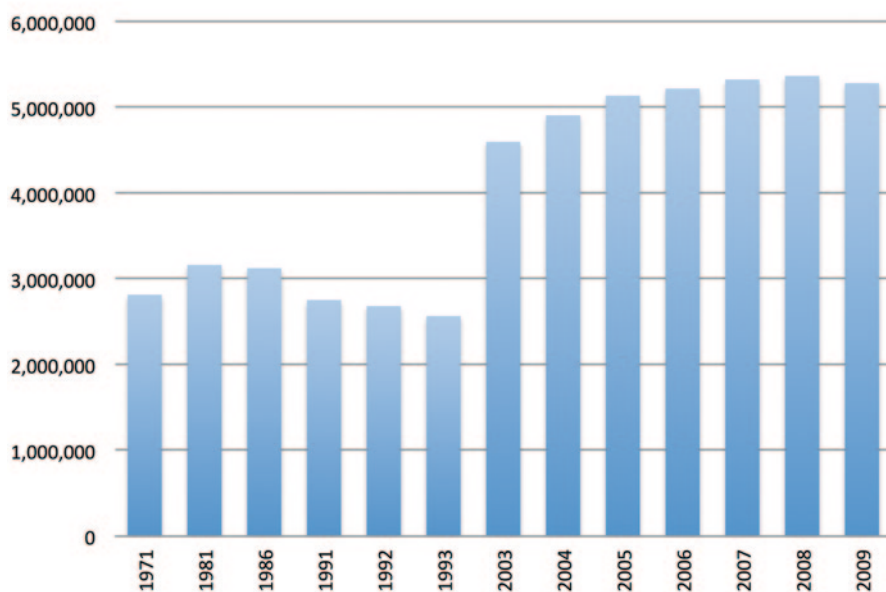


Fig. 2.1 Enrolments in Russian higher education (1971–2009). (Source: UNESCO Institute of Statistics)

nonetheless, significant sector-wide changes underway that could prove transformational in the years ahead. If successful, the reformed universities could play a leading role as Russia carves out its own distinctive path towards (re)modernization and integration with the global economy provided, of course, that Russia’s chronic problems of overbearing bureaucratic power, intellectual isolation, patron-client factionalism, and institutional corruption can be mitigated or overcome.”

2.3 China

Historically, China had a distinguished tradition of sophisticated education and scholarship along the Confucian tradition, with the Civil Service Examinations, which was, however, restricted to a very small segment of mandarins. The Nationalist government since 1911 developed a modern university system that, by the end of the Second World War, comprised 141 higher education institutions enrolling 84,000 students. As described by Ruth Hayhoe, “modern universities were varied in form, but achieved a degree of autonomy and intellectual freedom that enabled them to be an effective independent force in the wartime struggle, contributing in positive ways to national development, yet resisting negative aspects of Nationalist

regimentation. Also in this period, modern higher education finally reached most parts of the country, thereby becoming both more accessible and more connected to its indigenous roots” (Hayhoe 1996, p. 57).

After the Second World War, with the victory of the Communist Party in the Civil War, the People’s Republic of China adopted the Soviet model of central planning and functional education, replacing the institutions from the Nationalist period. Most of the population lived in rural areas working on agricultural fields, having limited access to education. With the Cultural Revolution of 1966–1968, most of the newly educated elite that emerged with the new regime lost their jobs and were sent to “reeducation camps” in rural areas, and all secondary and higher education institutes were closed until 1972 (Deng and Treiman 1997). In 1973, there were just about 200,000 students in higher education, according to UNESCO’s Institute of Statistics, for a population approaching one billion people, as reported by the 1982 Census, of which 80% were living in the countryside.

In the following years, and particularly after the liberalization reforms introduced by Deng Xiaoping in 1979, the country started to change dramatically. By 1990, 26% of the population lived in urban areas; in 2000, 36%; and in 2010, the number of urban dwellers surpassed those in the countryside. This movement of hundreds of millions from country to city occurred because of the new life opportunities created in the cities by the economic reforms, which created a market economy that stimulated private initiative. Chinese scholars often attribute these changes to policy decisions of the Communist Party leadership, but it is doubtful that China could remain isolated forever from the changes towards urbanization, industrialization, and education that were happening everywhere; what the political leadership would do, and did, was to try to steer this process as much as they could, while preserving its power.

Higher education expanded very rapidly with urbanization and industrialization. By 1980, there were already 1 million students; 10 years later, it had increased four-fold, to 4 million. As Yuzhuo Cai and Fengqiao Yan write in this volume (Chap. 8), the first move of the Chinese government to reform the higher education sector took place in 1985, but only started to be implemented in 1993, with the launch of the “Outline for Education Reform and Development in China,” when the transformation was already well on its way. This reform consisted basically in allowing the institutions to admit more students, in transferring responsibilities for higher education to local authorities and, since 1997, in allowing them to charge tuition fees in public institutions, which created incentives for the institutions to expand enrolment still further. Since then, enrolment continued to expand exponentially, reaching 9.3 million in 2001 and about 31 million in 2010 (Fig. 2.2).

Qiang Zha and Ruth Hayhoe, in their chapter for this volume (Chap. 17), argue that, “in general, Chinese universities are much more closely articulated with national and local development plans and strategies than their Western counterparts. Chinese universities are, to a large extent, the government’s educational and research arm for economic and social development,” adopting the functional approach to educational policy that seems to have been abandoned in other places. This may have been the official line, but, in practice, this was not done by setting admission quotas and tying the educational institutions to the productive sector,

China, Total Enrolment in Higher Education, 1973–2011

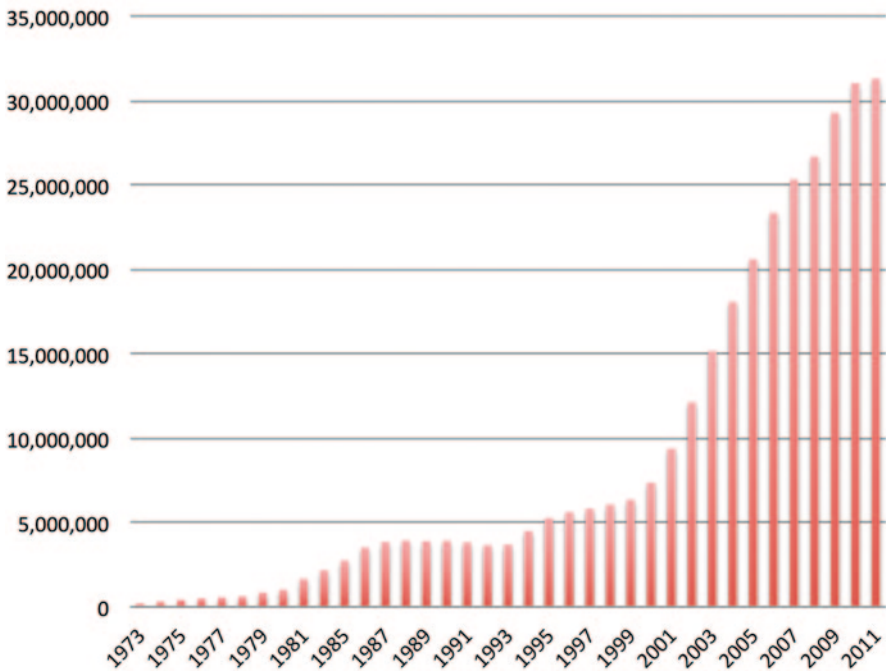


Fig. 2.2 Enrolments in higher education in China (1973–2011). (Source: UNESCO Institute for Statistics)

but by “decentralization of steering and management in exchange for institutional performance and accountability, while at the same time tightening its control over normative criteria for knowledge production.” The main instrument for this was the division of higher education institutions into four tiers—research institutions, research and teaching institutions, teaching institutions, and application-oriented institutions. Besides, a top tier of about one hundred were selected on a competitive basis for inclusion in the so-called “Project 211,” which provides additional support along with expectations for them to reach world standards in the 21st century. Within this group, 39 top universities were selected by “Project 985,” which provides financial support at levels similar to leading institutions in Europe and the USA and is largely responsible for the growth of scientific papers published by Chinese authors in recent years. Another instrument was the creation of a unified national exam for admission to the universities, which follows strict meritocratic principles and places the best students in the leading universities (this has a long pre-1949 history, was put in place in “new China” in 1956, attacked in the Cultural Revolution, and restored in 1977).

In spite of all this growth in the public sector, it is remarkable that private institutions are also expanding and that many Chinese students prefer to study abroad

if they can. In 2011, there were about 700 private universities in the country, with over 5 million students, comprising almost 22% of the total enrolment. These institutions are also under the supervision of government authorities. Private universities largely attract students who cannot get into the upper tier of public universities—some would prefer a private university in an attractive city or with attractive programs over a low-level public university in a more remote area. China is also the country with the most students abroad. According to the Ministry of Education in China, by the end of 2011, the total number of students overseas has reached 2,244,100 and the number that returned was only 818,400, i.e., about 36%.

Clearly, China has been very successful in expanding its higher education sector, and the eventual problems of quality and access that may exist, are difficult to gauge from the existing literature. Regarding access, there are 56 officially recognized ethnic groups in the country and almost 300 languages. Most of the population belongs to the Han group and speaks Mandarin along with a local dialect such as Cantonese, but there are at least 15 other groups with more than a million members. China has a very complex system of affirmative action instruments providing certain advantages for minorities to access higher education, including specialized institutions for minorities, quotas and additional points given to minority students in the national exams (Postiglione 1999; Sautman 1998). As noted by Sautman, “preferential admissions are mainly practiced by minority institutions. While many predominantly Han institutions of higher learning engage in affirmative action as well, most preferential admissions scarcely, if at all, diminish the opportunities of Han students,” since higher education as a whole continues to expand (1998, p. 106). These policies have resulted in benefits for minority students who would not otherwise have the chance to enter higher education but they are probably still underrepresented in the mainstream and higher level institutions.

Regarding quality, there is a perception, discussed by Zha and Hayhoe in this volume, that Chinese scientists and professionals are well trained but lack initiative and creativity, and this is attributed both to the Confucian tradition that gives priority to authority and discipline over independent and critical thinking and to the tendency for narrow specialization inherited by the functionalist view of higher education that still prevails in the country as a result of the early Soviet influence, but it is difficult to say to what extent this is true. The current policy toward academic excellence by the Chinese government tends to value and support quality in very broad terms and not in terms of the functional utility of the knowledge imparted by the universities. At the same time, it is true that few Chinese universities have reached the high, global standards expected of them. The best Chinese universities in the Shanghai Jiao Tong University rankings are all in the 100–150 level, below both the leading Brazilian and Russian universities. Chinese science has grown enormously in recent years in terms of papers published, being the second in the world, but its impact is not very high. According to one estimation by the Royal Society, between 1999 and 2008, “China’s citation share rose from almost nothing to 4%. However, this is dwarfed by the 30% share held by the USA. Although China ranks second to the USA in terms of publication output, the report found that, in 2008, it ranked only joint ninth in citation numbers” (Peng 2011).

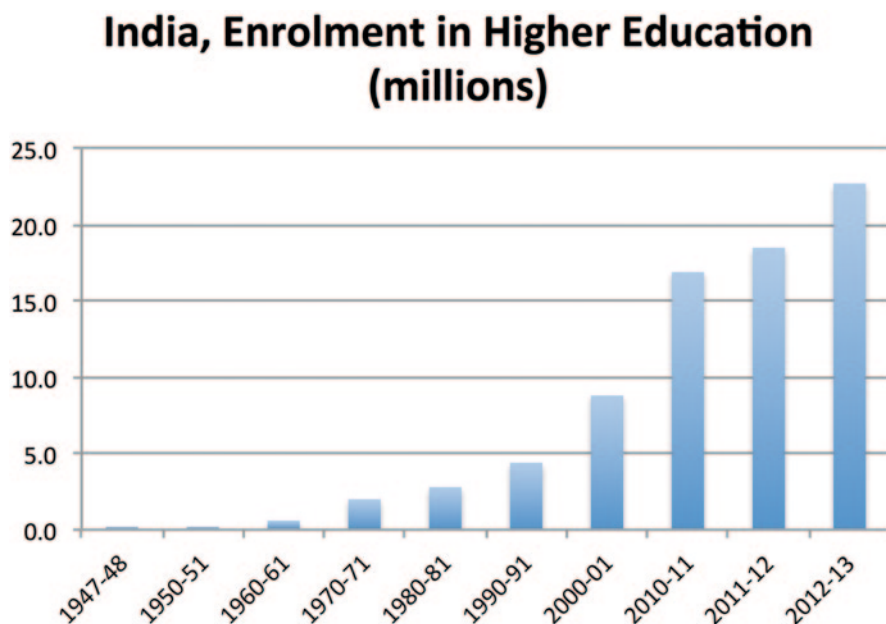


Fig. 2.3 Higher education enrolments in India (1947–2013). (Source: India's University Grants Committee 2013)

2.4 India

Like Russia and China, India is a vast country with hundreds of different ethnic groups and languages, and a strong caste system that, for centuries, has kept social mobility to a minimum. Most of the population lived and still live in the rural areas, about 30% is still illiterate, and the country never experienced the intense periods of industrialization and urbanization that changed China so dramatically in the last few decades. Over this vast subcontinent, the British Empire created a large administrative bureaucracy and offered to the Indian elites opportunities to study in British universities, and these elites were later responsible for the movement for independence and the organization of India's modern state. In 1950, India had just 200,000 persons with higher education, for a population of about 400 million. By 1970, enrolment more than tripled to 2 million, reaching close to 9 million in 2000, and 22 million in 2012. The gross enrolment rate, of 18.8%, is still small in comparative terms, but it is one of the largest higher education systems in the world, with about 35,000 institutions of all kinds. About 20% of the undergraduate students take courses in engineering, with the remaining in arts, the social sciences, and teaching professions, among others (Fig. 2.3).

While in China most of the traditional social privileges associated with education were eliminated with the Civil War and the Cultural Revolution, in India the

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