Abstract

In regards to Higher Education (HE) development and reform, recent and projected evidence suggest that growth in enrollment is likely to be slower (or even negative) as a result of ageing populations. The case of BRIC countries is particularly interesting for the study of the impact of demographic changes in HE because they exhibit considerable diversity in regards to their demographic transition. This paper explores how demographic changes are likely to affect the demand for higher education in BRIC countries. We argue that these countries are now facing a great expansion in enrollments, but given declining fertility levels, diversification of the HE clientele will become a common strategy among these countries. However, equity in HE in the near future will depend on how HE systems are and will be structured in these countries.

Keywords: Higher Education, Demographic Transition, BRIC countries
The Future of Higher Education in BRIC Countries: A Demographic Perspective

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1. Introduction

Global demographic transition has transformed the economic and demographic life cycles of individuals, and rearranged populations in ways not imagined 100 years ago (Lee 2003; Kirk 1996). Demography, thus, has become an object of interest in many areas, such as economics and health. In education, population changes are also a central issue. Despite their importance, there is limited interest among demographic researchers in the specific area of higher education (HE) development and reform. Meanwhile, among education researchers, the impact of the current and future demographic changes on higher education has not been deeply explored.

Because student flows and composition are largely influenced by demographic trends, changes in population dynamics have become a central issue in educational policy planning (Hüfner 1981; Willekens 2008). Considering the pace and magnitude of population changes, it can be predicted that developed countries will face a stagnation (or even a decline) in HE participation among the relevant age group (18-24) in the long run.

Recent and projected evidence suggest that, in most developed societies, growth in enrollment is likely to be slower (or even negative) as a result of ageing populations, and thus, clientele (college students) will tend to be older and more diverse than in the past (Murdock and Hoque 1999; Hüfner 1981; Trow 1976; Vincent-Lancrin 2008). Therefore, this scenario might challenge HE institutions (HEI): they will increasingly attempt to halt the decline in enrollments by diversifying their intake and provision (Vincent-Lancrin 2008).

In the developing world, the case of Brazil, Russia, India and China (the BRIC countries) is particularly interesting for the study of the impact of demographic changes in HE. Brazil, Russia, India and China accounted for 42 percent of the world’s population and approximately 30 percent of the world’s land mass in 2010 (World Bank 2011). Nevertheless, these countries exhibit considerable diversity in regards to the stage and pace of their demographic transition: of these four countries, only Russia is experiencing an absolute population decline; whereas the other countries are still going through population growth, despite a clear tendency towards zero or negative population growth in the future (United Nations 2011).

Therefore, it is urgent to ask: How will demographic changes affect the demand for higher education in BRIC countries? With such changes, will clientele in HE systems become more diverse in terms of their ethnicity and socioeconomic status? What are the challenges that BRIC countries can expect to face in the short- and long-term given population changes? This paper aims to answer these questions. The discussion about the impact of demographic trends in HE systems is important because it has implications for the capacity of the BRIC countries.
to sustain their economic growth and also to advance the social development of their populations.

This study is divided in four parts: The first section presents the state of the relationship between demographics and higher education; the second briefly surveys the current and prospective population characteristics in the BRIC countries; the third discusses the implications of population changes for HE systems in BRIC countries; the fourth section summarizes the evidence already presented in the paper, draws some further conclusions and implications.

2. Demographics and their Impact on Higher Education: The State of the Art

2.1. Demographics and their Impact on HE Participation Rates

Many factors may be seen as decisive when determining HE participation rates: both the anticipated levels and rates of student enrollment depend upon various factors which determine individual demand (Hüfner 1981). One of the major factors is the labor market prospects for future individual university graduates as determined by means of rate of return calculations (Carnoy 2011a). Other decisive factors that affect demand for education include: changing occupational structure, student interests and motivations, rates of unemployment among youth and even cultural forces such as the women’s movement (Trow 1976). However, in this paper we argue that Demography also plays an important role in determining future trends in HE, despite the fact that few studies have considered this possibility.

Everything held constant, demography directly affects higher education enrollment because the size of younger age cohorts (18-24 years) helps determine the number of college students. However, this relationship between population growth and higher education enrollment levels is not as direct as it seems. The HE enrollment rate also depends on the different entry rates, persistence rates, the distribution of admissions among relevant groups and the average length of studies (Vincent-Lancrin 2008).

With the convergence of demographic trends worldwide towards low fertility rates and high life expectancy, it can be predicted that most societies will face a decrease in the usual age-cohort population that attends college, that is, the 18-24 age group (United Nations 2011). Meanwhile, migration flows will perform a key role in determining participation rates in HE. International student mobility has been increasing steadily and is predicted to continue to grow further (Marmolejo, Manley-Casimir, and Vincent-Lancrin 2008). However, the equity implications are clear: the future flow of college student mobility between rich and poor countries will heavily depend on the overall quality of HE institutions in poor countries compared to those in rich countries (Ritzen 2006).

Despite the increasing importance of flows of migrant students, demographic trends in developed countries and their impact on the 18-24 age group have not translated into decreases in numbers of HE students because diversification in participation has compensated for decreasing population trends. Therefore, as a response to a decline in the tertiary school-age population, future HE strategies will consider a more diverse clientele (Murdock and Hoque 1999; Hüfner 1981; Trow 1976; Vincent-Lancrin 2008). Non-traditional learners (particularly older individuals, women and lower-middle class youth) and international students will play a key role in the HE systems of many developed countries (Altbach et al. 2009). Thus, when predicting upcoming trends in HE enrollments, relevant demographic
considerations include the changing composition of the student population by gender, age and socioeconomic group, and not only the effects of a declining population.

2.2. Demographics and Diversification of Higher Education Clientele

Demographic changes should be understood not merely as quantitative, but also as related to the composition of population. Overall, recent and projected changes in population dynamics suggest that, in most societies, growth in enrollment is likely to slow (Murdock and Hoque 1999; Hüfner 1981; Trow 1976; Vincent-Lancrin 2008). In response to this change, HEI will be engaged in much more active efforts to recruit non-traditional students of all kinds. Among countries that are already experiencing reductions in college cohort sizes, such as Japan and Korea, one strategy of HEIs has been to attempt to halt the fall in enrollments by diversifying their intake and provision (Vincent-Lancrin 2008).

In spite of this tendency to broaden the access of different population groups to the HE level, challenges arise when minorities are incorporated into the system. In most cases, these students do not have equal access to high-quality institutions compared to elite students, and also their graduation probabilities are lower than those of traditional students (Carnoy 2011c; Altbach et al. 2009). Therefore, inclusion of underrepresented groups in HE systems will require that these systems are capable of effectively recruiting, maximizing retention, providing remediation, and developing fundraising strategies (Murdock and Hoque 1999; Carnoy 2011c).

In sum, we argue that, despite the fact that there is a global trend towards the decrease in the regular college-age population (18-24 years) due to fertility transitions, demography still plays a central role in providing insights for HE policy planning due to compositional effects. Specifically in the case of the BRIC countries, future trends in participation rates and the diversification of student populations are central issues because these countries are still experiencing a fast demographic transition, with the exception of Russia. In the next section, we present relevant demographic indicators that will shape the future demand for HE in these countries.

3. Demographic and HE Indicators for the BRIC Countries: Current and Future Trends

In this section we will briefly describe the main demographic trends in the BRIC countries that are relevant for understanding the future challenges for HE systems: fertility rates; age structure; dependency ratios; female labor force participation; number of students; and school life expectancy at the tertiary level. Despite the increasing importance of migration flows of international students and their potential for determining future trends in HE systems in BRIC countries, this issue will not be explored in this paper. There are two main reasons for ignoring student migration flows. First, due to the difficulty of acquiring comparable and accurate data for BRIC countries for many points in time, this kind of analysis is limited. Second, because projections of future migration flows are subject to a high degree of uncertainty, the implications for policy that can be drawn from this analysis are restricted.

3.1. Fertility Trends

In terms of the future population trends of countries still in the process of demographic transition, the central role of fertility rates is well recognized by demographers as they are the most relevant factor for explaining changes in age distribution during demographic transition (Notestein, Grauman and Taeuber 1960).
Among the BRIC countries, Russia has followed the most discrepant and singular trajectory in terms of its fertility trends. Russian fertility patterns have been characterized by a low and sustainable level and by irregular fluctuations in birth rates (Kharkova and Andreev 2000). Unlike Russia, Brazil, India and China have shared a similar pattern of fertility changes since the 1950s. The case of India reveals a fast fertility transition alongside a large regional difference in fertility decline (das Gupta and Mari Bhat 1997). In Brazil, the onset of fertility transition occurred in the late 1960s and has become rapid and widespread among Brazilian regions. As a result, Brazil has started a sustained process of population aging (Carvalho and Garcia 2003). In turn, the Chinese fertility transition can be viewed as a special case: the country experienced a sharp decline in fertility within a relatively short time period. This is regarded as a result of an “induced fertility transition,” made possible through the strong intervention of the government in family planning activities since 1970, as well as a result of a fast socioeconomic development (Tien 1984).

By 2050, BRIC countries will have fertility transitions below the replacement level. Figure 1 shows projected Total Fertility Rates (TFR) for the BRIC countries until 2050. Estimates from 2010-2015 onwards are provided by United Nations Projections (United Nations 2011). Among the BRIC countries, India is the only one that does not have currently low fertility levels, but projections suggest that it will face a rapid fertility decline. Despite some recovery tendency of fertility levels for Brazil and China, and also despite a slight increase for Russia, all the countries are expected to have TFR below the replacement level by 2050. If held constant for a long period of time, this fertility pattern will lead to declining population sizes.

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3 The Total Fertility Rate is the average number of children a woman would bear over the course of her lifetime if current age-specific fertility rates remained constant throughout her childbearing years.
3.2. *Shifts in Age Structure*

Alongside fertility transition, changes in the age distribution can be considered one of the most relevant population indicators for predicting the future impact on HE. At the first stages of the fertility transition, the number of children decreases, but the share of the working-age population increases due to past high levels of fertility (Lee and Mason 2009). Therefore, changes in age distribution are relevant for HE systems because the temporary increase in working-age population positively impacts the demand for HE, everything held constant.

By 2050, BRIC countries will become increasingly aged. Figure 2 shows the share of population in each age group according to sex for the BRIC countries in 2010 and 2050 (UN Medium Variant projection estimates). Graphics are presented on the same scale to ensure comparability. In terms of the population pyramids, an ageing population is recognized by its straight base and rectangular format. In 2010, India had the youngest population of the BRIC countries, with many children and few elderly people. This gave India’s age distribution a true pyramidal shape. Brazil had the second youngest population, and the base of its population pyramid shrank as the number of working-age individuals increased relative to children and the elderly. For China and Russia, this decrease in the young and child age groups was already clear in 2010. In 2050, all the BRIC countries will have ageing populations.
Figure 2: Age Composition of the BRIC Countries: 2010 and 2050

Source: UN Data - United Nations Population Division, 2010 Revision
3.3. Dependency Ratios

As we previously claimed, BRIC countries will undergo significant changes in their age distributions by 2050 towards ageing populations. Another important demographic indicator for future trends in HE is the Total Dependency Ratio. This indicator consists of the ratio between the number of dependents (elderly and children) and the number of working-age adults (Lee 2003). The fall in dependency ratios as a result of fertility transition is called demographic dividend because it creates opportunities for investment in economic development and human capital (Bloom et al. 2003). In terms of HE conjectures, the decrease in the dependency ratio that occurs during demographic transition can be seen as a unique opportunity for governments to invest heavily in education and promote economic growth.

Not all the BRIC countries will be able to take advantage of the fall in dependency ratios to promote high levels of investment in education. Figure 3 presents the total dependency ratios for the BRIC countries from 2010 and estimations for 2050 provided by the United Nations (Medium Variant). The demographic dividend is illustrated by a decrease in the dependency ratio. When this indicator reaches its lowest level, the demographic dividend reaches the maximum, that is, the lowest number of dependents (children and elderly) per working-age adult. It is clear that, from the BRIC countries, only India will still be facing a demographic dividend by 2050. The demographic dividend is projected to last in Brazil until 2020 and until 2015 in China when dependency ratios will start to increase. The demographic dividend had ended in Russia by 2010, and now this country will present increasing dependency ratios.

Figure 3: Total Dependency Ratio for the BRIC Countries: 2010 to 2050. UN Medium Variant.

The evidence above demonstrates that India will be able to benefit from the demographic dividend by having a large working-age population until 2050. Therefore, educational policymaking should take advantage of its favorable demographic context by ensuring high participation rates in HE and also increasing quality. On the other hand, the demographic dividend in Brazil and China is quickly diminishing, and in Russia it is already gone. Hence, HEI strategies in the long run in these countries will aim to compensate for this decline by
increasing the participation rates of non-traditional population groups (e.g., women, older individuals, minorities).

3.4. Female Labor Force Participation

Another important indicator for delineating future trends in HE is female labor participation. Human Capital Theory predicts that as women enter the labor market they may invest more in education in order to guarantee their competitiveness. Likewise, if more women are investing in education, they are more likely to participate in the labor market. Hence, trends in female participation in the labor market may predict (or be predicted by) increases in HE participation. Figure 4 presents the trends in female labor force participation rates for the BRIC countries from 1980 to 2009. China has the highest level of female labor force participation of the BRIC countries, and India has the lowest. According to Bhalla and Kaur (2011), “While fertility has been declining and approaching international norms for India’s level of development, labor force participation (LFPR) of females in India lags considerably behind the ‘norm’ (p.6)” For Brazil, this indicator has been increasing since 1980, and female labor market participation rates in this country have exceeded those observed in Russia. In terms of the future trends, we can expect that female labor force participation will increase in the BRIC countries, even if differences in level and pace remain, as a result of modernization and gender equality in the labor market (Goldin 2006).

Figure 4: Female Labor Participation Rate in the BRIC Countries: 1980-2009

3.5. Trends in HE Indicators

All these changes in demographic components -- fertility, changes in age structure, demographic dividend and female labor participation -- have provoked a significant increase in the number of students in tertiary education among the BRIC countries. Figure 5 presents the number of students in HE per 100,000 habitants from 2000 to 2005. Within the BRIC countries, Russia accounts for the highest number of students in HE, followed by Brazil, China and India. At the same time, China has the fastest-growing number of students over this period.
Besides the number of students, one important indicator of the HE capacity refers to school life expectancy. This indicator can be interpreted similarly to life expectancy at birth: it represents the average number of years of participation in HE. Thus, it reflects the number of students that drop out during college and also the number of students who take longer than the standard length of studies (between four and five years). The higher this indicator, the better is the ability of the system to retain students. Figure 6 presents the school life expectancy at the tertiary level for the BRIC countries between 2000 and 2009 as reported by UNESCO Statistics. Data for Brazil were not available in 2006. According to Figure 6, the BRIC countries are experiencing increases in the HE life expectancy, and it could be inferred that progress in student retention has been made. However, differences in the level of this indicator among these countries are remarkable. Brazil, India and China have a considerably lower level compared to Russia, and India has the lowest. Therefore, initiatives aimed at increasing student participation in HE are urgent for Brazil, India and China, especially because those countries are currently experiencing their demographic dividend. When dependency ratios start increasing for these countries, the opportunity to have a large number of students from the traditional age group with college degrees will be gone.
Summarizing the evidence, Table 1 provides a comparative analysis of current and future demographic trends for the BRIC countries -- fertility, dependency ratios and female labor force participation -- as well as measures of access and permanence in HE systems -- number of students per 100,000 habitants and school life expectancy. It can be drawn from the table that BRIC countries are not similar with regard to the demographic indicators, but that all of them tend to become ageing populations by 2050. Meanwhile, the population dynamics of each country will impact its HE system in a particular way. For example, India is still facing high population growth, whereas Russia is currently in the last stage of the demographic transition. This will impact not only the demand for access, but also the composition of the HE students in terms of their age, ethnic and socioeconomic composition. This issue is of particular important at present for Russia; it will become crucial in the medium term for Brazil and China and in the long run for India. It turns out that HE policy makers in BRIC countries should be concerned with the pace of future demographic trends and their impact on equity in HE.

Table 1: Summary of Current and Future Trends in Demographics and HE Indicators for the BRIC Countries

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subtheme</th>
<th>Brazil</th>
<th>Russia</th>
<th>India</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current stage of the Demographic</td>
<td>Fertility</td>
<td>Advanced/late stage</td>
<td>Already finished</td>
<td>Medium/Advanced Stage</td>
<td>Advanced/late stage</td>
</tr>
<tr>
<td>Transition</td>
<td>Dependency ratios</td>
<td>Minimum level by 2020</td>
<td>Minimum level in 2010</td>
<td>Minimum level by 2040</td>
<td>Minimum level by 2015</td>
</tr>
</tbody>
</table>
4. How Demographic Forces will affect HE Systems in the BRIC Countries?

As claimed in the previous section, BRIC countries are now facing a great expansion in enrollments, except for Russia. However, their expansion patterns will be even more complex given declining fertility levels, which will tend to decrease the size of the 18-24 age group. As a result, diversification of the HE clientele is predicted to become a common strategy among BRIC countries, by means of incorporating older adults and minorities who may have not had a chance to attend college previously. However, the success in interchanging the traditional with non-traditional students will depend on the ability of BRIC HE systems to incorporate a more diverse clientele. Therefore, we should expect that issues regarding inequality and equity in HE will become more important in the future. In this section we will describe how HE systems are currently structured in BRIC countries and discuss the implications of demographic changes to equity at the HE level.

Previously, we argued that the increased diversification of HE clientele and the current organization of the HE system’s features may impact equity. If HE systems are heavily differentiated internally at the present, the incorporation of previously excluded population groups will induce an even further increase in inequality. For the BRIC countries, HE systems exhibit more similarities than divergences in their ability to ensure equity at the HE level. Therefore, for the purpose of comparing the impact of demographic prospects on the HE systems for the BRIC countries, we try to answer the following questions in each country:

- How have BRIC governments recently responded to the expansion of HE demand?
- Have HE students in BRIC countries been selected to specific types of HE institutions or prestigious majors according to their social class?
- Are there policies in BRIC countries to enable the access and permanence of low-SES students?
- How are the financial systems in the BRIC countries currently structured? Are there any inequities across demographic groups?

### How Demographic Forces will affect HE Systems in the BRIC Countries?

<table>
<thead>
<tr>
<th>HE indicators</th>
<th>Female labor force participation</th>
<th>Rapid and consistent increase over time</th>
<th>High level with a slight tendency of decrease</th>
<th>Low level and stable over time</th>
<th>High level with a slight tendency of decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand for higher education (number of students enrolled per 100,000 hab.)</td>
<td>Second highest level</td>
<td>Highest level among BRIC countries</td>
<td>Lowest level among BRIC countries, but increased over time.</td>
<td>Third highest level and with a high rate of increase</td>
<td></td>
</tr>
<tr>
<td>School life expectancy at the tertiary level</td>
<td>Second highest level and also experienced improvement, but has a large gap compared to Russia</td>
<td>Highest level and has increased over time</td>
<td>High growth of school life expectancy over time but still lags behind Brazil.</td>
<td>Lowest and stagnant level.</td>
<td></td>
</tr>
</tbody>
</table>

Source: UNData, UNESCO Education Statistics, World Development indicators
In the following subsections, we will address these questions.

4.1. Expansion of HE Demand and Privatization in BRIC Countries

In response to a rapid and sustained demand for tertiary education since the 1990s, BRIC countries have created new institutions, expanded existing ones, and introduced and extended distance-learning options. But, most importantly, BRIC countries have allowed a private HE sector to supplement or even substitute the slots provided by the public sector (Altbach et al. 2009; Carnoy 2011b). Therefore, privatization of HE is a prominent characteristic of HE systems in BRIC countries despite the fact that there are significant differences in the size of the private sectors. For instance, Russia has the smallest participation of the private sector, but the private sector role has been increasing considerably since the beginning of 2000s. It increased from 7 percent in 2000 to 14 perent in 2008. The share of private enrollments in HE was 20 percent in 2008 for China and 30.7 percent for India in the same year. For Brazil, this share was approximately 75 percent in 2007 (PROPHE 2011).

Some researchers claim that the uncontrolled creation of private institutions has exceeded the ability of the state to monitor and ensure quality (Kapur 2010; Carnoy 2011b). This seems to be the case in BRIC countries, since there is evidence that the high and remarkable expansion of private institutions, especially in Brazil and India, has compromised quality (Carnoy 2011b).

Having considered the future population trends in BRIC countries, we argue that privatization may seriously compromise the future of HE systems in these countries. First, because the demand for HE will not continue to increase indefinitely given current demographic trends, the current unbridled expansion of private HEIs will not match the size of the expected student population in the long run. Even though we can expect a diversification in HE clientele, future population trends are not expected to keep pace with or to exceed the growing number of institutions. Besides the probable inadequacy of an uncontrolled expansion of private HEI in the context of ageing populations, privatization may also negatively affect the increasing number of non-traditional students in HE systems. As there is, in general, a strong relationship between SES and tertiary participation (Hossler, Shonia and Winkle-Wagner 2007), increasing privatization might reduce the participation of these population groups or even select them into low quality institutions.

4.2. BRIC Countries and Institutional/Major Segregation According to SES

Future equity trends in HE are heavily influenced by the association between the quality of high school that students attended and their chances to participate in high-quality institutions and in highly competitive majors as well. In other words, students who are able to receive a high-quality secondary education are most likely to enter into the best HE institutions as well as the more prestigious/competitive courses (Carnoy 2011b). For the BRIC countries, this association has been quite strong (Carnoy 2011b). Given this scenario and the future pace of diversification of HE demand due population changes, we expect that the majority of students who come from low-SES families and low-quality high school institutions will not be able to enter prestigious universities and majors. Hence, HE systems in BRIC countries will have to propose mechanisms to solve this upcoming inequality issue.

4.3. Cost-Sharing Policies in HE and its Implications for BRIC Countries

Another important impact of the demographic trends in BRIC countries on HE policymaking refers to the implementation of cost-sharing policies. In order to absorb an increasing number of both traditional and non-traditional students, HE systems in BRIC countries have been
relying even more on tuition and student fees even in public institutions (particularly for the former type of student) (Carnoy 2011b). This scenario may have a considerable impact on students and their families, especially among minority groups (Altbach et al. 2009). For instance, Heckman (2005) shows that, in China, fees operate inequitably in urban and rural sectors because in the latter fees are approximately two times higher. The author concludes that fee-based systems in China reduce access to education. Also, in the cases of India, China, and Brazil, high tuition has prevented students from low socioeconomic background from enrolling in the most demanding courses and consequently from acquiring high quality education (Carnoy 2011b). Given the expected increase in diversification of HE student population in the future, this will be a crucial agenda for policy making.

### 4.4. Equity Policies in BRIC Countries

The upcoming demographic trends and their impact on HE systems for the BRIC countries -- towards a highly diversified clientele -- will challenge the ability of the state to ensure the access and participation of low-income and minority students. The organization of HE systems in terms of affirmative action, tracking, cost-sharing and even the equality of opportunities in secondary education may certainly be influenced by the diversification of demand. However, an inadequate response on the part of HE policy makers to this increasing demand by previously excluded groups will clearly have equity implications.

Recently, BRIC countries have adopted affirmative action policies as a response to increased social demand. For instance, students who attended public high schools and black students in Brazil are guaranteed a certain quota of the enrollments at some public institutions, and the government has also provided scholarships and loans to enable the participation of poor students in HE. India has promoted the access of low-income students in HE by charging reduced fees for certain targeted castes and tribes. Yet, India’s HE system can be considered the most segregated among the BRIC countries: it charges differential tuition rates and restricts access to some high quality institutions according to the student’s caste or tribe.

Despite these initiatives to promote the access to HE of new socioeconomic groups in BRIC countries and given the tendency towards a further diversification of clientele due to demographic changes, the question of whether the current policies will be sufficient for ensuring access to a more diverse clientele in the long run remains unanswered. This will depend on the political willingness of governments and the populations’ aspirations and voice as well.

Table 2 provides the main characteristics of HE systems in BRIC countries from an equity perspective. In general, BRIC countries have attempted to develop policies to incorporate a more diverse clientele. However, remarkable differences in the quality and effectiveness of the programs still persist. Given demographic changes in the future, it becomes urgent that policy makers attempt to discuss strategies to serve a more diverse clientele.

The implications and importance of incorporating demographic changes in HE policy are straightforward: if policies are not adequate, this may seriously compromise economic growth as well as social development in BRIC countries.
## Table 2: Summary of the Current Structure of BRIC HE Systems in Regards to Equity Policies

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subtheme</th>
<th>Brazil</th>
<th>Russia</th>
<th>India</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiation</td>
<td>Expansion trends</td>
<td>Mostly in the private sector; some recent initiatives to expand public slots (REUNI)</td>
<td>Expansion through charging fees within public institutions; massification of higher education in Russia has resulted in the devaluation of tertiary education</td>
<td>Mostly in private sector with low quality in response to the heavily population growth</td>
<td>Expansion of world-class universities</td>
</tr>
<tr>
<td>Mass vs. elite</td>
<td></td>
<td>Elite goes to public universities, whereas the mass of HE students go to private universities (most of them for profit)</td>
<td>Elite and mass goes to public universities, but there is an elite hierarchy within public HEIs.</td>
<td>Elite goes to public universities, whereas the mass of HE students go to private aided HEIs. Private unaided and “deemed” universities</td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td></td>
<td>Loans, fellowships, affirmative action/quotas</td>
<td>Grants and loans on the basis of per-capita ratios</td>
<td>Tuitions are set and differentiated by caste and also quality (within the casts there is also heterogeneity). There are some affirmative programs by charging reduced tuition rates</td>
<td>Enrollment plan (by province)</td>
</tr>
<tr>
<td>Tracking</td>
<td></td>
<td>No</td>
<td>No</td>
<td>Yes (low)</td>
<td>Yes (high)</td>
</tr>
<tr>
<td>High school sorting by SES</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes (not as much pronounced as the other countries)</td>
</tr>
<tr>
<td>Rationalization</td>
<td>Cost-sharing</td>
<td>Public HEIs are free, whereas private HEIs charge fees.</td>
<td>Test scores determine whether a student must pay tuition or no in public universities</td>
<td>Cost-sharing is spread out among public and private HEIs.</td>
<td>Test scores determine whether a student must pay tuition or no in public universities</td>
</tr>
</tbody>
</table>

Source: Carnoy (2011b); Hossler, Shonia, and Winkle-Wagner (2007)
5. Conclusion

The role of HE in future development prospects for the BRIC countries is quite clear. Demography plays a central role in shaping HE systems. The BRIC countries are experiencing a substantial expansion in their systems. Where progress toward broader social inclusiveness has occurred in these countries, diversification of the student body has placed a complex new set of demands on higher education institutions.

In this paper we presented future demographic trends and their impact on HE systems in the BRIC countries. Rapid transition in these countries has brought and will continue to bring both challenges and opportunities. However, country-specific choices will define how these opportunities will be exploited. Policies to ensure equity in HE, in terms of access, permanence, and quality, will be crucial for attending to the demands of a more diverse clientele. Therefore, policy makers should incorporate demography in their policy prospects.

6. References


