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Higher Education in the BRIC Countries: Promoting Democratic Development

Julie Williams

Since 2001, the combined GDP of Brazil, Russia, India, and China, collectively known as the BRIC countries, has grown to total over 20 trillion dollars (CIA). The enormity of the global consequences associated with the economic, social, and political development of the BRIC countries is apparent. Whether or not these four countries and almost three billion citizens develop strong economies, stable societies, and established democratic institutions will determine the world order for the foreseeable future. Therefore, as one of the driving forces behind politics, society, and the economy, systems and institutions of higher education in the BRIC countries are worthy of study.

Leading comparative education scholar Philip Altbach explains the ability of higher education to promote democratic development in industrializing countries through autonomy, accountability, academic freedom, the academic profession, and students. Autonomous universities promote rational debate of societal issues and faculty members often produce research and provide expertise that influences public policy. He states:

Universities are among the few institutions in modern society that have the detachment and objectivity to pose alternatives and ask difficult questions...The university, in some ways, is an institution that is profoundly subversive of intolerance, repression, and authoritarianism. Dictatorial rulers are correctly fearful of universities, and the most repressive regimes...are in a sense right when they close the universities for extended periods (Altbach 188–194).

Altbach also credits universities for training future elites to appreciate the open discourse and critical thinking that characterize a healthy democratic society. In addition to promoting democratic values on campus, higher education institutions (HEIs) disseminate vital information to their communities and serve as interpreters of international trends and knowledge (Altbach). Altbach notes that universities are of "primary importance." to the internal development of countries as well as holding a place at the "very center of economic and cultural development." in a globalized world (Altbach XVIII). In the case of the BRIC countries, internal development and by extension, the role of HEIs in society and the economy will have a direct and immediate impact on the international system.

Systems of higher education produce informed, knowledgeable citizens who are the keystone of democratic society as well as skilled workers that are the foundation of a productive economy. Their ability to promote positive democratic development, however, is accompanied by challenges that can undermine liberalism and cause existing inequalities and deprivations to become more entrenched in society. The negative effects of higher education systems that contain aspects of inequality, elitism, corruption, and other hindrances to access and academic excellence can be understood using Amartya Sen's capabilities approach.

The capabilities approach is a paradigm that explains poverty as capability deprivation rather than simply a lack of income. The solution to capability deprivation is a social commitment to development through the expansion of freedom. Sen argues, "Development consists of the removal of various types of unfreedoms that leave people with little choice and little opportunity of exercising their reasoned agency. The removal of substantial freedoms, it is argued here, is constitutive of development" (xvii). Rich and poor countries face issues associated with persistent poverty, hunger, and restrictions on political freedom, the oppression of women, unsustainable development, and the maintenance of civil liberties. The tenet of the capabilities approach is that the freedom of individual agency is instrumental in solving these problems. Individual agency, however, is "inescapably qualified and constrained" by the social and economic situation of any given individual. Sen considers both the processes that allow individual agency and the opportunities that individuals have depending on their circumstances (Sen 17). Deprivation of the five instrumental freedoms (political freedoms, economic facilities, social opportunities, transparency guarantees, and protective security) can be a result of inadequate processes or inadequate opportunities (17).

Education, as a social opportunity, complements economic development and political freedoms (Sen 18). For example, a more educated, highly skilled workforce can increase economic productivity and in turn can result in more investment in higher education. Similarly, HEIs can be affected by public policy, but they also affect policy by producing a highly literate, critical voting population. Sen's approach can be used to analyze the challenges of access and equity faced by HEIs in the BRIC countries. The systems in all four states demonstrate evidence of systemic and often institutionalized discriminatory policies that limit the ability for individuals of disadvantaged social strata, regions, ethnicities, cultures, linguistic backgrounds, and income levels to obtain an equal opportunity to enroll at a quality university.

On a more systemic level, Altbach applies the idea of center-periphery to describe the relationship between HEIs in developing countries and HEIs in well-established, industrialized countries (Altbach 20). This concept separates the few central institutions, the knowledge producers and international research leaders, from the majority periphery institutions that distribute knowledge acquired from the central institutions. Altbach categorizes the HEI systems of Brazil, Russia, India, and China as peripheral internationally, but that does not mean that the universities within those systems are peripheral within their respective societies. In fact, the opposite seems to be true:

Third World universities are...probably more important to their societies than the major international universities like Harvard or Oxford are to theirs. They produce the highly trained elites necessary for the operation of the modern state, are very often at the political vortex of their societies, produce cultural commentary and criticism, and, in some nations, make important contributions to defining newly established political entities (22).

Altbach argues that as a result of neocolonialism, poor access to adequate technology and educational resources, and the dominance of English as the language of academia makes the transition from the systemic periphery to the central nearly impossible (22). The BRIC countries, however, have no choice but to create world-class higher education systems to maintain their economic growth and sustain a productive and politically stable society. By using Sen's capability theory to analyze challenges of access and equity and Altbach's work on universities as tools for development to explore university autonomy, sources of funding, and state building capabilities, it is possible to assess the role of HEIs in the globally relevant BRIC countries.

Expansion and Privatization

Rapid Growth

The first major and dramatic similarity between institutions of higher education in the BRICs is the rapid expansion experienced by the systems starting in the 1990s. For example, Brazil's total undergraduate population expanded from about 1.5 million in 1992 to over 3.8 million in 2003 and the total number of higher education institutions nearly doubled between 1998 and 2008 (McCowan 580). The number of college students per 10,000 individuals in Russia rose from 178 to 517 between 1993 and 2007 (Dias, et al., 23). In the same time period, the number of Russian state higher education institutions rose from 548 to 682 and non-state institutions grew from 78 to 666, with even more growth in branches and satellite campuses

(Salnikov, Burukhin 72). Finally, in 1980, three percent of university-aged Chinese citizens were enrolled in a HEI; by 2009, the number had jumped to 24 percent (Lei, et al., 44). This growth fosters a more educated populace and generates more skilled workers to contribute to the economy, two positive factors crucial to the effect of higher education on democratic development. However, the rapid rate at which higher education has expanded in these growing countries has compromised quality and equity in all four countries.

Additionally, the presence of an expanding group of educated students has, in some cases, prompted undemocratic action by political leaders who are threatened by the political activism associated with college campuses. Prime Minister Vladimir Putin and his political party, United Russia, have a reputation for undemocratic practices. Aside from a recent intervention in the journalism program at Moscow State (Putin funded a second school with the explicit purpose of training journalists to support the government), there is not much documented evidence of the PM or his party's intervention (Nemtsova 56). Despite a lack of definite proof, PM Putin's tendency to brutally stifle protests and political challengers does not bode well for student activists.

In China, the increase in enrollment has forced the People's Republic China to devise a method for governing the universities that balances the autonomy needed for academic advancement with the control desired by the Communist Party of China. The current compromise means that each public institution has an academic administration headed by a president and a separate Communist Party administration led by a party secretary (Altbach 13). Altbach calls this lack of autonomy "dysfunctional" and states that Chinese universities are subjected to "extraordinary bureaucratic controls" (16). When trying to determine the role of higher education in the democratic development of a country, it is important to understand the relevance of the institution's internal politics. China is the only BRIC country that is not an official democracy, so it is relatively unsurprising that the CCP is heavily involved in the governance of public universities. That does not make the authoritarian government's extensive involvement acceptable, however. The fact that a CCP member oversees all research, and even determines what is and is not acceptable to research, threatens the academic integrity of the entire country. Ideally, HEIs promote democracy by encouraging critical thinking, dialogue, and analysis that challenges the status quo and advocates for social and political progress. If each

Chinese campus has its own CCP censor, universities cannot carry out that critical function and therefore cannot serve as proponents of democracy.

"Budget for Non-Development"

One of the most obvious and prominent effects of rapid expansion is the inability of BRIC governments to keep up with the new institutions and students financially. In Brazil, "standards in many of the public universities have dropped in recent years due to reductions in their budgets" (McCowan 584). The public sector is often seen as "costly and inefficient, and unable to provide the diversity of provision and the responsiveness to consumers necessary in the contemporary context" (586). In 2003, public universities in Brazil were spending \$13,500 per student per year, an expenditure that was "unlikely to be sustained by a government who had adopted the belief that the State's responsibility was to regulate and not provide higher education" (McCowan 456).

Similarly, between 1996 and 2006, the Russian Federation consistently allocated 11 to 13 percent of its budget to higher education every year, which was problematic once one considers the immense increase in enrollment during that same time period (Arapov 48). Between 2005 and 2007, the money spent by the government on higher education increased by 105 percent, but in 2006 that amount only equaled 3.87 percent of the GDP, which is less than the 4.8 percent allocated in 1997 and well under the industrialized country average of five to six percent (Khalin 30–44). Some scholars refer to this unfortunate economic situation as a "crisis," citing unprecedented budget cuts and a dramatic departure from the Soviet policy of generous spending in the sphere of education (14 percent of the budget in 1950) (Kolisnikov 35–48). Even O. Smolin, the vice chair of the Committee on Education and Science in the State Duma, called the 2004 budget for higher education a "budget for nondevelopment" (Plaksii 6–22).

In India there are only 350 public HEIs in a country of over a billion individuals. Therefore, it makes sense that only seven to ten percent of young adults in India attend college; there is no room for anyone other than the elite. The government of Prime Minister Singh has since tried to remedy this deficiency by building more Indian Institutes of Technology and Management, but the financial viability of his goals is yet to be seen (Bagla).

The Strengths and Weaknesses of the Private Sector

Brazil, Russia, India, and China each responded to the financial strains of a growing higher education system by allowing the private sector to pick up the slack of overburdened public systems. Each of the BRIC countries has employed unique mechanisms to allow the private sector into the sphere of higher education, and each system approaches the growth and regulation of private colleges and universities slightly differently. The privatization of tertiary education in all three countries has been strikingly similar. There was a 133 percent increase in the Brazilian private sector between 1998 and 2004; the expansion of private higher education was so intense that in the nine months between November 2001 and July 2002 an average of 2.5 private HEIs were opened every day (McCowan 457). In Russia, between the 1993–94 school year and the 1998–99 school year, tuition-paying students caused 82 percent of the growth in the higher education sector. By 2002, 50 percent of students were paying tuition, and that number has grown every year since so that at least two thirds of all spending on higher education comes directly from Russian families (Arapov 7–27). In 1980 there were no private HEIs in China; by 1999 there were 43, and in 2006 there were 278 private degree-granting institutions located predominately in the economically robust Eastern regions of the country (FienLiang, Morgan 28). One in six undergraduates currently enrolled in an institution attend a nonpublic university (Yu Ertl 43).

Unfortunately, private colleges and universities are often over-commercialized, of questionable quality, and too expensive to be truly accessible to the sectors of the population that need a higher education the most. Wrana Maria Panizzi characterizes the growth of Brazil's private higher education sector as "the kind of growth that is often accompanied by a decline in the quality of educational provision" (Panizzi 45). A newer university, Pitagoras, is affiliated with the U.S. company Apollo, which is responsible for the University of Phoenix, a for-profit college with over 400,000 students in the United States. These HEIs are more like business ventures than universities because they rely heavily on advertising and branding to promote their thousands of campuses, which are usually located in strip malls and even theme parks (McCowan 458). These institutions are often "launched quickly and indiscriminately, without necessarily complying with regulatory processes and quality assessments" (Dias 17). Not all private institutions are illegitimate, however. An example of a successful private college in India is NIIT University, born from the NIIT Corporation led by millionaires Rajenda Pawar and Vijay Thadani. The founders claim that they started the institution because it was obvious to them that

the state "does not have enough money to take on the myriad of challenges facing the country's education system" (Neelakantan 56).

The spectrum of private institutions that ranges from highly commercialized "diploma factories" to more quality learning and student-based schools colleges exists in all four BRIC countries. Complicated accreditation processes and financial strain make students of all four countries vulnerable to illegitimate unaccredited institutions. For example, one Russian university rector goes as far as to say, "a graduate with a 'nonstate' diploma has fewer rights" than a graduate of a public school. It is also claimed that graduates from non-state institutions have a lower level of knowledge, reasoning skills, maturity, and personal and professional expectations than their state school counterparts (Suspitsin, Suspitsyna 62–80). One critic of private education even said that Russian private schools that charge tuition are "turning into hotbeds of deceit, fraud, and financial skullduggery" (Kolesnikov 42).

Similarly, in China, Li FienLiang and W. John Morgan emphasize that, "There is a consensus in China that investment in private higher education should get reasonable economic profits or returns" (29). Student fees and tuition comprise over 80 percent of the school's total income and the institutions are often subsidiaries of major corporations (for example, Jili University is operated by Jili Auto Company) (29). In addition to this extreme level of educational commercialization, FienLiang and Morgan argue that because of the lower quality of private HEIs, "private institutions can only begin to recruit new students in the wake of ordinary public institutions, let alone in competition with key universities," and that private higher education should be viewed as a "necessary supplement to public provision" rather than a "complementary twin" (29–30). Finally, the authors criticize private HEIs for employing more part-time teachers who are less committed to the institution (no private schools can conduct official research in the PRC) and whose age ranges are concentrated in the "less than 30" and "older than 60" areas, implying that the instructors, "lack experience at the one end of the scale and energy and commitment on the other end of the scale" (30).

FengLiang and Morgan concluded that most lower-income families pay for education in an attempt to increase prospects for employment after graduation, but, ironically, the expansion of the private sector has resulted in college graduates having an increasingly difficult time finding adequate employment. This holds especially true for private HEI graduates in China; 43 percent of them ultimately work in non-urban (and therefore lower paying and less prestigious)

areas compared to 10 percent of their public peers, and the average starting wage for a public school graduate is significantly higher than for a graduate from a private school. Students from a disadvantaged background as well as a private institution have the lowest chances of obtaining employment in an urban area, which is exceptionally detrimental to the students and families who are financially struggling to earn a degree (FengLiang 32).

Expansion Without Equity

Tristan McCowan summarizes the lack of relationship between expansion and increased equity in higher education:

The existence of private universities, with their less competitive entrance exams, flexible hours, and, in some cases, location in areas outside the metropolitan centres, have meant that many Brazilians have obtained a university diploma who would not have been able to otherwise. Private universities are, therefore, fulfilling a role in Brazilian society, and there is clearly a strong demand for them from 'consumers'. Nevertheless, it will be argued that the growth of this sector is not in fact contributing to equity in the education system, particularly in the long run (460).

McCowan was specifically referencing Brazil, but there is evidence in all of the BRICs that the expansion of tertiary education has not necessarily resulted in increased equity and accessibility for financially disadvantaged, rural, and minority students. For example, the Organisation for Economic Co-operation and Development (OECD) created a profile that described a typical Brazilian student as male, Caucasian, a member of a nuclear family with parents who have completed at least secondary school, and a member of a household that earns over ten times minimum wage (13). Additionally, "71 percent of students are from the top quintile of family income, there is low representation of the African Brazilian populations, and universities are concentrated mainly in the wealthier South-Eastern and Southern regions" (McCowan 456).

Brazil's education system displays the extreme inequality that characterizes the country as a whole. While a child of an upper-middle class family is assured an education comparable to that of any developed country, the poor can expect little more than a few years at an under-resourced primary school...Less than half of those at secondary level have survived their studies without repeating a year...education opportunity on a national scale is deeply undemocratic (456).

This combination of race, income, and region is characteristic of inequality, inaccessibility, and capability deprivation in the BRIC countries.

The Cost of Education

The first limiting factor for equal access to quality higher education is the high cost of tuition. A study conducted in 2002 determined that only 11.81 percent of Brazilian 18–24 year olds could afford the majority of courses (McCowan 460). The fact that costs for courses vary depending on subject area further complicates the issue. Subjects that result in a degree with high-earning potential, like dentistry, medicine, and engineering are significantly more expensive than lower earning subjects like humanities, education and social work (460). Additionally, the cost of a degree from a private HEI depends on the quality of the institution. Therefore:

The emergence of low-cost courses in the last 5 years is a deliberate strategy by education companies to open the HE market up to the lower-middle class, and at first sight seems a positive means of widening access. However, it will ultimately serve to reproduce inequalities by confining students of poorer families to courses and institutions providing diplomas with less value in the employment market (461).

According to M.V. Arapov, in Russia, "There are regions in the country where the total worth of goods and services produced by an individual is about half the resources that he will have to pay to obtain a higher education" (461). In 2002, 42.4 percent of young people in Russia claimed that going to college would force them to "give up everything else" and 44.8 percent of them said that obtaining an education on a tuition basis "is simply not possible" (461).

Race and Ethnicity

A second major limiting factor in achieving democratic development through higher education is the inability for BRIC countries to accommodate for racial and ethnic diversity in the admission process. Racial diversity has the potential to strengthen a democracy, but it is often contentious because there is an overlap with race and socioeconomics; for example, Afro-Brazilians constitute an economic underclass. Descendants of Africans make up almost half of the Brazilian population (the only country with a higher black population is Nigeria), but they only account for 20 percent of university students and two percent of graduates (Lloyd). Additionally, one in four black Brazilians are illiterate compared to one in 10 non-blacks and Afro-Brazilians earn on average half of the salary of whites (Lloyd). Private institutions in Brazil are not mandated by the government to help correct this problem of inequality. In the public sector, the State University of Rio de Janeiro was the first institution to reserve 40 percent of its seats for Afro-Brazilians and 10 percent for students from public secondary schools (McCowan 591). Since 2000, the federal government has attempted to enact policies that require public HEIs

to set aside half of their seats for Afro-Brazilians, indigenous peoples, and students from public schools in proportions representative of their region's demographics (591).

Quota systems are controversial and will be discussed in detail in a subsequent section, but Brazil is similar to India in that the higher education quota system has incited racial violence and intense controversy—such as dorm looting and the use of racial epithets—on university campuses. One reason for the extreme reactions stems from the quota selection process; applicants are deemed "black" or "not black" based on a picture. This system has resulted in an inconsistent selection process for students; in one case, one identical twin was admitted as "black" to the University of Brasilia and the other was denied as "not black" (Ash).

In China, 91.59 percent of the population identify as members of the Han ethnic group, the other 8.41 percent constitute 55 distinct minority groups (Zhu 14). The number of ethnic minority students in China's higher education system increased from 4,500 in 1952 to 950,000 in 2005, but that is due in large part to a proportional expansion of exclusively ethnic majority colleges, not an overall growth of ethnic equality in the system (15). These ethnic universities tend to be less prestigious than their Han majority counterparts and also generally focus on the liberal arts rather than hard sciences, technology, and engineering, which limits the minority students' employment opportunities upon graduation (17).

The fact that there are at least 128 distinct languages recognized by the Chinese government complicates the process of integrating ethnic minorities into Han-majority schools (Tsung, Clarke 58). Bilingual education at the primary and secondary level was institutionalized through policy in the 1980s and has since developed into a two-tiered system where the word for the education of the Han Chinese (*zhenggui jiaoyu*) means "regular education" and "national education," *minzu jiaoyu*, is unique enough to require a separate word (58).

Lind Tsung and Matthew Clarke conducted extensive interviews in the Xinjiang Uyghur Autonomous Region (XUAR) to learn more about the effect of linguistic identity issues on higher education. Responses varied, but they ultimately concluded that the decision to attend primary school taught in Han Chinese or in Uyghur—the dominant ethnic and linguistic minority in the region—is one of the most impactful choices in one's life (62). Uyghur-speaking students have fewer employment opportunities upon graduation and are generally considered inferior to their Han-speaking counterparts. Sen addresses this issue and suggests that the actual linguistic

decision made by groups like the Uyghurs is less important than the fact that they have the ability to make that choice in the first place:

The pointer to any real conflict between the preservation of tradition and the advantages of modernity calls for a participatory resolution, not for a unilateral rejection of modernity in favor of tradition by political rulers, or religious authorities, or anthropological admirers of the legacy of the past. The question is not only not closed, it must be wide open for people in the society to address and join in deciding. An attempt to choke off participatory freedom on grounds of traditional values...simply misses the issue of legitimacy and the need for the people affected to participate in deciding what they want and what they have reason to accept (Sen 32).

Regional Disparities

Just as pertinent as racial and ethnic disparity is regional inequality. Democratic development requires an educated population that has access to quality schools regardless of where an individual was born. The BRICs provide urban students with the best flagship universities, leaving the majority of citizens in rural areas without access to the best tertiary education the country has to offer. In China, students from rural regions are underrepresented in all types of HEIs; for example, 4.5 percent of Beijing University's 2000 students came from rural areas in 2004 when rural residents as a whole comprise 52 percent of the general population (Yang 195).

A large part of the problem stems from quotas established by local educational authorities that mandate a percentage of students local to that city, municipality, or province be admitted to a particular HEI (often with lowered admission requirements). As a result of these quotas, prestigious public universities within major cities in eastern provinces have a mandate to enroll mostly affluent students from an urban background (Yu 49). The most significant challenge faced by rural college students, however, is related to their lack of resources in and out of primary and secondary school. In 2002, schools in Shanghai spent five times more per pupil than those in the rural Henan province (Yang 197). Fiscal decentralization and a cultural emphasis on self-reliance in China has resulted in rich urban schools constructing indoor swimming pools while poor rural schools struggle with approximately a third of the textbooks available to wealthier schools (as well as a lack of desks, chalk, and other essential teaching materials) (197). Also, urban students are more likely to have wealthy, well-educated parents, and a child whose mother has completed at least two years of college is four times more likely to enroll in an HEI than a child whose mother has never pursued a degree (Yang 196).

Regional disparities and resource deficiencies are not unique to China. A primary cause of the perceived illegitimacy of the Russian higher education system is a lack of adequate assets and infrastructure; underfunding has caused state and non-state institutions alike to suffer from a shortage of modern supplies, academic rigor, and human capital. Cramped dorm rooms, outdated computers, and aging lab equipment are among the physical problems faced by universities in Russia today (Kolesnikov 40). In 2006, only 100 Russian Foundation for Fundamental Research grants were awarded to schools outside of the two capital cities, which indicates a serious lack of emphasis on quality research in major universities in the provinces (Arapov 22).

Standardized Tests as the Solution and the Problem

One of the ways in which differences in race, location, and socioeconomic status become salient within systems of higher education is through standardized testing for admission to HEIs. Much of the stress associated with standardized testing comes from the competitive nature of the exams; in Brazil there are 8.4 candidates that take the test for every one place in a public university, and 1.5 applicants for every place in a private institution (McCowan 585). In India, the competition is even more intense with 320,000 applicants taking the All India-JEE entrance exam in April 2008 for 7,000 seats (Neelakantan 54).

The situation becomes more complicated when one considers the various mechanisms BRIC governments have constructed to accommodate linguistic, ethnic, and racial minorities as well as the ways individuals can use their socioeconomic status to manipulate the competitiveness of the exams. In Brazil, in order to have a competitive advantage on the exams for tuition-free public HEIs, wealthy parents often enroll their children in *pre-vestibulares*, or preparatory courses (McCowan 457). These courses are expensive and therefore almost completely inaccessible to students outside of Brazil's upper economic echelons. McCowan describes the situation:

The cruel irony of Brazilian higher education, therefore, is that the majority of the free higher education places are filled by students from wealthy backgrounds who have been able to afford private primary and secondary schooling, and a *pre-vestibular* course (457).

In Russia, the United State Examination (USE), a standardized admissions test, was first tested in certain regions in 2001 and was administered for the first time nationally in 2009 (Nemtsova A28–A29). This test is an improvement for both efficiency and egalitarianism because previously, if a student in Siberia wanted to attend a university in Moscow, they had to

travel to the capital to take a specific entrance exam. The USE also addresses the needs of 153 categories of disabled or underprivileged students (handicapped students, Chernobyl victims, etc.); universities are mandated to accept lower scores from those specified individuals (A28–A29). Several of Russia's premier universities, Moscow State being the most notable example, did not initially accept USE scores and are still struggling to adjust their admissions process to accommodate this new test.

China's national entrance exam, the College Entrance Examination (CEE), is especially controversial among advocates of equitable access to higher education. Who makes the test, what is on the test, how the test is administered, and who even has to take the test are all highly politicized questions in China. The exam was instituted in 1977 and since its beginning, scores have been highly relative to a student's home province and to the universities to which the student is applying. The score cutoffs became so random and decentralized that by 2002 Shanghai and Beijing, two of China's wealthiest provinces, created their own province-specific test (Wang 22). These new tests were immediately criticized for increasing the possibility of cheating and corruption because the likelihood of the academics writing the tests being the same academics administering and teaching for the tests increased drastically (23).

Houxiong Wang conducted a subject functional difference analysis of the regional 2007 entrance exams and found them to be "prejudiced against or unfair to rural students" (Wang 32). The source of this bias was often language usage. In addition to concerns about taking a test in a non-native language, many exams contained words such as "mortgage," "chain store," "hamburger," and "public reserve funds" that caused serious comprehension difficulties for students accustomed to rural terminology (32). More obvious than subtle linguistic bias is China's "grade credit policy" that blatantly awards CEE "credits" to students with powerful parents, wealth, or some other athletic or academic talent that can usually only be developed with the help of a rich family (29). Wang, and most other scholars who have researched this subject, ultimately concluded that despite some glaring inequalities, "using objective paper tests are fairer than not using them" (33). Therefore, other means to improve fair access to higher education must be explored.

Possibilities for Improvement

The work of both Sen and Altbach is based on the possibilities for improving human capability and the potential for universities to be used as tools for democratic state building.

Therefore, evidence that the BRICs have identified weaknesses and are taking reasonable steps to combat them is just as important as evidence of weaknesses themselves. Brazil and Russia are both in the process of implementing national programs for HEI improvement. All four BRICs have attempted to develop a financial aid system for economically disadvantaged students. All four BRICs have also developed some sort of quota system to include historically excluded and underprivileged minority groups in tertiary education.

National Improvement Programs and Financial Aid

The government of Luiz Inacia Lula da Silva (Lula) responded to weaknesses in Brazilian HEIs in 2004 with the Universidade para Todos (University for All Programme, or PROUNI). This system of reforms used tax reductions to encourage private HEIs to provide vacant seats to disadvantaged and underrepresented students for free. Non-profit universities can designate 20 percent of their vacancies, whereas for-profit colleges can only set aside 10 percent (Akoojee, Nkomo 122). The 2004 reforms also modified a pre-existing student loan system, but poor families have been reluctant to engage in the system and the rates of non-payment are over 20 percent (589). Nonetheless, 277,000 students have benefited from the program (called FIES, the Programa de Financiamento Estudantil); since 2004 it has effectively provided previously unavailable tertiary education opportunities to a portion of the low-income population.

In Russia, Article 42 of the 1992 Law on Education introduced the concept of federal educational loans and grants, but it did not include any information about creating viable infrastructure to enact any sort of organized program (Bain 67). The Russian law "On Education", last amended in 2008, did suggest an experimental voucher system called GIFO (Governmental Individual Financial Obligation) that funded universities based on per-capita ratios, but it failed to truly be implemented. According to O. Bain, the Russian government continues to "nibble at the problem rather than solve it" (67).

Similarly, the Chinese government launched a small financial aid program in 1997, and in the past decade and a half it has grown to provide aid to over 29 million students (Shen 147). The system provides aid through scholarships, grants, work-study, tuition waivers, and, most prevalently, through student loans. Hong Shen's in-depth analysis of the aid framework in China revealed that the program is off to a good start, but for many of the country's poorest students there is simply not enough aid to make higher education a possibility (164).

A potential solution to Russia's educational legitimacy issues is the Bologna Process, the European Union's solution to higher education. When Russia became a participant in this process in 2003, it agreed to adopt a multilevel (baccalaureate, master's, doctorate) system of higher education, work to enable student and instructor mobility throughout participating countries, implement joint educational programs, and the use of the European transcript. Russia also began using the European Credit Transfer System (Dobren'kova 42–51). Many of the more prestigious universities throughout Europe have refused to adapt to this system, but for Russia, the Bologna Process will serve as an effective model for development in the future. The major arguments against Russia's entry into this agreement revolve around the perceived need for a uniquely Russian higher education system, but G.A. Prazdnikov is able to reply to that concern:

The Bologna Process does not pose a threat to our own system of education in Russia (or to any other national system of education) of destroying or wiping out cultural traditions; it does not dictate lockstep standards of education. Quite the contrary: a diversity of cultures, national social systems, and education syllabi is viewed as a part of the common European intellectual treasure (5–16).

Controversial Quotas

Although all of the BRICs have implemented some sort of national quota system within their admission process, India's highly contested reservation system provides an excellent case study. In India, only the ancient caste system itself is more complicated than the politics behind the issue of reservations. Essentially, 15 percent of seats and faculty positions at public universities are reserved for members of the Scheduled Castes (SCs), 7.5 percent are reserved for Scheduled Tribes (STs), and 27 percent are reserved for non-creamy layer members of the Other Backward Castes/Classes (OBCs) (Neelakantan).

The reservation process technically begins when students sit for the All India-JEE. The general applicants take the test on white paper; OBC/SC/ST and disabled students take the test on colored paper. Then, the raw scores of the applicants are manipulated so that OBC/SC/ST score cut offs are up to 50 percent lower than the limits for general applicants (Chhapia). If enough of those seats are not filled, the students who could not pass the test even with the relaxed limits enroll in a rigorous one-year prep course that provides a summary of all the subjects covered by the tests. They are then admitted, without retaking the exam, to a public HEI. Even after that, Chief Justice Balakrishnan ruled against IIT Delhi's attempt to expel five SC

students because, "these socially and economically backward categories are to be taken care of at every stage" (Mahapatra).

The higher caste groups that oppose the current quota system claim that the situation is unfair, unnecessary, and detrimental to the quality of national institutions. They have a valid argument; wealth and educational experience vary widely among the OBC/SC/STs. The "creamy layer," the wealthiest OBC members, are a particularly contentious group because they are seen as too well off and therefore unworthy of reservations. Faculty and students make their opinions clear; strikes, self-immolation, arson, and riots demonstrate exactly how desperate Indians are for a seat in an IIT (Indian Institute of Technology) or IIM (Indian Institute of Management).

This inflammatory system is not an effective solution to India's problems of inequity and inaccessibility. A study by S. Desai and V. Kulkarni in 2008 showed that the dalit (the lowest members of the now illegal caste system) graduation rate is actually decreasing as more quotas are implemented and that a SCs chances at employment are, for the most part, still poor (Desai, Kulkarni 45). In 2007, the National Knowledge Commission suggested a deprivation index that takes into account income, gender, region, and place of residence before determining admission to an institution (Neelakantan). This shift from restrictive group policies would take the emphasis off of the social construction of caste and place it on to the individuals who are truly at the greatest disadvantage, regardless of sociopolitical label.

Possibly the most important indication that quota systems in the BRICs are ineffective is the fact that many historically disadvantaged groups cannot produce enough qualified students to fill reserved seats even with lowered admission requirements. In 2009, 1100 reserved seats were not filled because that many SC/ST/OBC students could not pass the JEE even with a preparatory course (Chhapia). In Brazil, the PROUNI system is based on the fact that there are empty seats in universities because they are inaccessible to students due to price or lack of preparation. There is hope for students who take advantage of the quota system, however. FengLiang and Morgan did find that the employment prospects and starting wages of underprivileged students who graduated from a Chinese public institution were not significantly different than those of wealthier students (35). Similarly, low-income students in Brazilian public institutions performed better on a national assessment than their wealthier counterparts in 2000 (McCowan 463). This means that a quality higher education does have the ability to improve the lives of disadvantaged students.

Conclusion

The BRIC countries are distinctly different states economically, socially, and politically. Their only obvious commonalities are the reason they were somewhat haphazardly grouped together in the first place—large population and economic potential. Therefore, the dramatic extent to which their higher education systems are similar is surprising. The systems are not identical, but the overall themes of expansion, privatization, and the challenge of increasing access and equity to disadvantaged students are obvious in each country. These themes have been covered extensively in the previous sections, but their relevance to democratic development and human capability has yet to be explicitly addressed.

The most significant obstacle standing between tertiary education in the BRIC countries and democratic development are the problems of inaccessibility and inequity. Every country with a university system faces the challenges of balancing public funds, private contributions, and educational quality in order to provide as many citizens with a higher education as possible. No system will be perfect, but McCowan lists two criteria for higher education systems to strive for to be considered democratic:

- 1. There must be sufficient places so that all members of society who so desire, and who have a minimum level of preparation, can participate in higher education.
- 2. Individuals must have a fair opportunity of obtaining a place in the institution of their choice (582).

UNESCO's World Conference on Higher Education in 1998 gives another definition of an equitable and accessible system:

Admission to higher education should be based on the merit, capacity, efforts, perseverance and devotion, shown by those seeking access to it, and can take place in a lifelong scheme at any time, with due recognition of previously acquired skills. As a consequence, no discrimination can be accepted in granting access to higher education on grounds of race, gender, language or religion, or economic, cultural or social distinctions, or physical disabilities (UNESCO).

Finally, the OECD endorses the following definition of equity in education:

Equity in education has two dimensions. The first is fairness, which implies ensuring that personal and social circumstances...should not be an obstacle to achieving education potential. The second is inclusion, which implies ensuring a basic minimum standard of education for all (Dias 4).

All three of these definitions argue that in order to be considered equitable and democratic, higher education has to be a somewhat realistic option for everyone. Expensive tuition, challenging tests, and cultural barriers are not inherently undemocratic as long as they are not so overwhelming that they make obtaining a higher education impossible for one segment of the population. From the perspective of the capabilities framework, individuals should not be actively or passively excluded from the ability to pursue a diploma in a field of their choosing.

Given those criteria, there is evidence of all four BRICs actively promoting equity of access. All four countries have quota or reservation systems for historically disadvantaged groups as well as a form of financial aid system to offset the rising cost of tuition. The quota systems are far from effective and inherently discriminatory, but no developed country has found a better solution to assist groups that have systematically been excluded from beneficial facets of society in the past. A. Gupta argues that fair and effective affirmative action policies are unique to democratic polities because they provide a legitimate and justified way for the elite and the underprivileged to positively interact (5). Similarly, national standardized tests are generally considered unfair because they favor students from rich cultural urban centers who have had the benefit of a wealthy upbringing and excellent primary schooling, but no country has an admission system that is considered more fair than a standardized written test.

The major unique challenges facing the BRICs are the rapid rates of higher education expansion and the extreme levels of income inequality. The private education sector grew so quickly in the 1990s that the public sector has not been able to truly catch up and the systems as a whole have not developed an adequate infrastructure to provide equal access to all. For example, most of the BRIC financial aid systems are severely underdeveloped. Additionally, the inability of HEIs in India and Brazil to fill vacant seats indicates a deep problem with not only planning on part of the HEIs, but also seriously inadequate primary and secondary schools. China has the most developed system of loans, grants, and scholarships, but the lack of autonomy from the CCP places a major limit on the university's essential function of academic independence and research. Russia's rampant corruption demonstrates underdevelopment in the area of the teaching profession and institutionalized university integrity.

UNESCO's declaration states that access for some specific disadvantaged groups must be "actively facilitated" (McCowan 582). As tertiary education systems become more established in the future, public and private parties can do more to actively facilitate access and equity. In all

four countries, national exam preparation courses could be offered at discount rates for students who cannot afford the currently exorbitant course prices. By actively promoting democratic practices in the admissions and enrollment process, BRIC governments are actively promoting democratic university development and, by extension, democratic development as a whole.

McCowan argues:

Reform of higher education is unlikely to be successful in isolation from primary and secondary levels, and it is difficult for any university system to correct inequalities developed through previous years of schooling. At the same time, higher education cannot absolve itself from all responsibility, placing the onus of inequities on the previous levels (581).

This point highlights how it is often easiest to dismiss higher education as simply the tip of the educational iceberg, totally dependent on the primary and secondary levels below it. That perspective ignores the abilities of the university as explained by Altbach to become a state-building entity through research and to become a democratizing agent through the facilitation of critical thinking, academic autonomy, and a knowledgeable voting base.

The criteria for equitable and democratic higher education described by McCowan, UNESCO, and the OECD can all be directly related to Sen's capability theory. Deprivations exist in the higher education systems of Brazil, Russia, India, and China—an inevitable fact. In order to promote democratic development, these deprivations must be addressed through increasing the capability of individuals to obtain a higher education. This means treating basic education as a civil right to ensure that there are enough qualified students to fill reserved seats in prestigious universities. It means guaranteeing a fair admissions process that does not give undue benefit to those of specific races, religions, or social classes. It means regulating universities to ensure quality academic programs that are worthy of time and money. Finally, it means implementing a sound financial aid system to make an investment in higher education a reasonable process for everyone involved. All of these actions will increase the capabilities of the billions of current and future students in the BRIC countries to become knowledgeable, productive, and democratically motivated citizens.

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