



## **A Comparative Analysis of Six Developing Countries and Their Progress Toward Universal Primary Education: Afghanistan, Nepal, Algeria, Uganda, Peru, and Venezuela as Case Studies**

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The United Nations Millennium Summit was held in September 2000 and established eight world goals to be achieved by 2015. The second of these goals resolved that all boys and girls throughout the world will be allowed to receive a primary education through the fifth grade. This article examines Afghanistan, Nepal, Algeria, Uganda, Peru, and Venezuela. Specifically, changes in the countries' percentage of primary education enrollment and the countries' rural-urban demographics, the student-teacher ratios, and their expenditures on education as a percentage of the Gross Domestic Product (GDP) from 2000 and 2005 are examined.

According to a United Nations Department of Public Information fact sheet (2002), there are an estimated 113 million children throughout the world who do not attend school, most of whom are in developing countries. At the time that the Millennium Development Goals (MDGs) were established, over 20% of the world's school age children were not being afforded opportunities to receive a primary education (Department for International Development [DFID], 2001). In addition, of this percentage, two-thirds of those not receiving a primary education were girls (DFID, 2001). Due to this concern and the impact that a lack of education has on a country's overall development, the second Millennium Development Goal, therefore, intends to ensure universal primary education for all boys and girls as the minimum level of education by 2015 (Baird & Shetty, 2005). According to the Inter-agency and Expert Group of the United Nations, the indicator for measuring progress toward the MDG of universal primary

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education is based on students who start first grade and who reach the fifth grade. According to Handelman (2006), more than 150 countries are classified as developing. This study focused on six developing countries with two each coming from Asia, Africa, and Latin America. Countries specifically studied were chosen based on a population variance of no more than ten million people. After looking at population listings for all countries, a range of 25 million to 35 million people per country was chosen. Although eleven developing countries fell within this population range, the six countries chosen for the study were Afghanistan and Nepal in Asia, Algeria and Uganda in Africa, and Peru and Venezuela in Latin America. When more than two countries met the population range for a region, those countries of personal interest were chosen. This was the case with Afghanistan due to the significant political changes involving the overthrow of the Taliban government in recent years. Populations from these countries range from 25.7 million in Venezuela to 32.9 million in Algeria (World Factbook, 2006).

This article addresses the following questions:

1. How do changes in the percentage of students enrolled in primary education compare to changes in the rural-urban demographics of six countries from 2000 to 2005?
2. How do changes in the percentage of students enrolled in primary education compare to changes in the student-teacher ratios of six countries from 2000 to 2005?
3. How do changes in the percentage of students enrolled in primary education compare to changes in the expenditures on education as a percentage of the Gross Domestic Product (GDP) of six countries from 2000 to 2005?

*Enrolled Students in Primary Education and Rural Population*

Table 1 shows the percentage of students enrolled in each of the selected countries for the years 2000 and 2005 and the percentage of each country's population that lived in rural areas during the same years.

**Table 1. Percentage of Enrolled Students in Primary Education and Percentage of Rural Population**

Country	% Enrolled		% Rural	
	2000	2005	2000	2005
Afghanistan	33	41	78	76
Nepal	70	79	86	84
Algeria	94	97	43	40
Uganda	87	87	88	88
Peru	92	97	27	25
Venezuela	88	92	13	12

In 2000, Afghanistan had the smallest percentage of enrolled primary education students with only 33% (Sarvi, 2003). Although this percentage increased from 2000 to 2005, the percentage of enrolled primary education students rose to 41%, which is still lower in comparison to the other countries (UNESCO, *EFA*, 2006).

Table 1 also shows that Algeria had the highest rate among the countries with 94% of its students enrolled in primary education in 2000, while 97% were enrolled in 2005 (Fiske, 2001; UNESCO, *EFA*, 2006). Fiske (2001) reported in UNESCO's *Monitoring Report on Education for All, 2001* that the 2000 primary education enrollment percentages for the other countries included Nepal – 70%, Uganda – 87%, Venezuela – 88%, and Peru – 92%. According to the enrollment percentages for 2005, UNESCO's *Education for All Global Monitoring Report* (2006) reported that Nepal's enrollment increased to 79%, Uganda's stayed constant at 87%, Venezuela's increased to 92%, and Peru's enrollment increased to 97%. Given the primary education enrollment percentages for 2000 and 2005, demographic changes in the rural population as a percentage of each country's overall population were also noted.

UNDESA (2007) noted that, while Afghanistan's primary education enrollment increased from 33% to 41%, its rural population decreased as a percentage of the country's population from 78% to 76%. Given Afghanistan's positive growth rate, 78% of its 2000 population was 16,174,860 people, while 76% of the 2005 population was 19,050,920 (UNDESA, 2007). The smallest percentage of rural population was in Venezuela, which went from 13% (3,172,260 population) in 2000 to 12% (3,207,120 population) in 2005, while improving its primary enrollment from 88% to 92% (UNDESA, 2007). The next smallest rural population was Peru, which had a 27% rural population in 2000 and 25% rural population in 2005, during which time its primary enrollment rose from 92% to 97% (UNDESA, 2007). In this case, the decrease in the rural population meant that Peru went from a rural population of 6,929,010 in 2000 down to 6,818,500 in 2005 (UNDESA, 2007). While Algeria's enrollment increased from 94% to 97%, UNDESA (2007) lists Algeria's rural population as decreasing from 43% to 40%, with a slight numerical increase from 13,117,580 in 2000 to 13,141,600 in 2005. As previously mentioned, Nepal's enrollment increased from 70% to 79%, while its rural population shifted from 86% (21,000,340 population) to 84% (22,758,960 population) (UNDESA, 2007). The last of the case studies focused on Uganda, whose primary enrollment remained consistent at 87% for both 2000 and 2005, while its rural population remained the highest of the six countries with 88% for 2000 and 2005 (UNDESA, 2007). According to data from UNDESA (2007), an 88% rural population in 2000 was equivalent to 21,727,200, and an 88% rural population in 2005 was 25,947,000.

In summation, although Uganda's percentage of students enrolled in primary education remained constant at 87%, the other five countries used as case studies showed progress toward primary education. This progress ranged from Algeria,

which increased its percentage of students enrolled in primary education from 94% to 97% for an increase of +3%, to Nepal, which went from 70% to 79% for an increase of +9%. Furthermore, although all of the countries included in this study maintained positive population growth rates, five of the six countries experienced a declining rural population while increasing their percentage of students enrolled in primary education. This comparison in the enrollment rates and the rural populations emerged as one of several themes from this study. Only Uganda's population stayed constant. Decreases in the rural populations of the six countries ranged from -1% in Venezuela to -3% in Algeria.

*Enrolled Students in Primary Education and Student-Teacher Ratios*

Table 2 illustrates the percentage of primary education students enrolled for each of the countries included in this comparative analysis for 2000 and 2005 to demonstrate the student-teacher ratio for each case study during the same years. Of the six countries, two experienced an increase in the student-teacher ratio, while four countries experienced a decrease.

The two countries that increased their student-teacher ratios were Afghanistan and Nepal. Afghanistan's primary enrollment increased by 8% while the primary education student-teacher ratio increased substantially from 47 students per teacher in 2000 to 65 students per teacher in 2005 (Fiske, 2001; UNESCO, *EFA*, 2006). In Nepal, the primary enrollment increased by 9%, and the primary education student-teacher ratio increased slightly from 39 students per teacher in 2000 to 40 students per teacher in 2005 (Fiske, 2001; UNESCO, *EFA*, 2006).

**Table 2. Percentage of Enrolled Students in Primary Education and Student/Teacher Ratio**

Country	% Enrolled		Student/ Teacher Ratio	
	2000	2005	2000	2005
Afghanistan	33	41	47:1	65:01:00
Nepal	70	79	39:1	40:01:00
Algeria	94	97	28:1	27:01:00
Uganda	87	87	60:1	50:01:00
Peru	92	97	29:1	22:01
Venezuela	88	92	27:1	21:01

Meanwhile, Algeria, Peru, Uganda, and Venezuela decreased the primary education student-teacher ratios in their respective countries from 2000 to 2005. Fiske (2001) reported that Algeria, Peru, and Venezuela had comparable student-teacher ratios in 2000 of 28:1, 29:1, and 27:1 respectively. As of 2005, Algeria's student-teacher ratio decreased slightly to 27 students per teacher, while Peru's ratio decreased to 22 students per teacher and Venezuela's ratio dropped to 21

students per teacher (UNESCO, *EFA*, 2006). Uganda, whose primary enrollment percentage remained at 87% for both 2000 and 2005, continued to have the highest student-teacher enrollment although it dropped from 60 students per teacher in 2000 to 50 students per teacher in 2005 (Fiske, 2001; UNESCO, *EFA*, 2006).

From examining the issue of student-teacher ratios, another theme developed around the availability of primary teachers. The countries with smaller student-teacher ratios enjoyed the higher enrollment rates. In short, two countries increased their student-teacher ratios with Afghanistan going from a ratio of 47:1 to 65:1 and Nepal increasing from a ratio of 39:1 to 40:1. The remaining four countries showed decreases in their student-teacher ratios. Overall, the 2005 student-teacher ratios ranged from a low in Venezuela of 21:1 and an enrollment rate of 92% to a high in Afghanistan of 65:1 and an enrollment rate of 41%.

*Enrolled Students in Primary Education and Education Expenditures*

Table 3 compares the changes in the percentage of students enrolled in primary education and changes in the expenditures on primary education as a percentage of the Gross Domestic Product (GDP) for the six countries from 2000 to 2005. As Table 3 illustrates, three of the countries increased the percentage of their GDP for primary education, and three decreased. Those increasing expenditures as a percentage of the GDP were Afghanistan, Uganda, and Venezuela, while Algeria, Nepal, and Peru decreased expenditures as a percentage of their respective GDPs. For purposes of this study and to make a more thorough comparison in the analysis, percentages of each country's GDP was converted to United States dollars.

**Table 3. Percentage of Enrolled Students in Primary Education and Percentage of GDP for Primary Education**

Country	% Enrolled		% of GDP	
	2000	2005	2000	2005
Afghanistan	33	41	1	3
Nepal	70	79	2.5	1.3
Algeria	94	97	4.2	1.6
Uganda	87	87	2.02	2.5
Peru	92	97	3.2	1
Venezuela	88	92	4.17	5.2

Uganda's percentage of the GDP involving primary education expenditures increased from 2.02% (\$529,240,000) in 2000 to 2.5% (\$1,217,500,000) in 2005 (Fiske, 2001; UNESCO, *EFA*, 2006, World Almanac, 2003; World Almanac, 2007). It should be noted, however, that, despite the slight increase as a percentage of the GDP, Uganda's total GDP increased substantially from \$26.2

billion in 2000 to \$48.7 billion in 2005 (World Almanac, 2003; World Almanac, 2007). Consequently, what appeared to be a small increase from 2.02% to 2.5% actually translated into an increase of over \$688 million or more than twice the 2000 education expenditures (World Almanac, 2003; World Almanac, 2007).

Venezuela's expenditures on education as a percentage of its GDP increased from 4.17% (\$6,096,540,000) in 2000 to 5.2% (\$7,992,400,000) in 2005, an increase of almost \$1.9 billion (Fiske, 2001; UNESCO, *EFA*, 2006, World Almanac, 2003; World Almanac, 2007). Meanwhile, although Afghanistan's expenditures on education as a percentage of its GDP increased substantially from approximately 1% in 2000 to 3% in 2005, Afghanistan's total GDP was considerably smaller than Venezuela's (Fiske, 2001; Sarvi, 2003; UNESCO, *EFA*, 2006, World Almanac, 2003; World Almanac, 2007). As a result, Afghanistan increased primary education expenditures from \$210 million in 2000 to \$696.6 million in 2005 (World Almanac, 2003; World Almanac, 2007).

As previously mentioned, Algeria, Nepal, and Peru decreased their education expenditures on primary education as a percentage of their respective GDP, which also translated into decreases in the dollar expenditures for primary education (Fiske, 2001; UNESCO, *EFA*, 2006, World Almanac, 2003; World Almanac, 2007). According to Fiske (2001), Algeria used 4.2% of its 2000 GDP for primary education expenditures, which is the equivalent to \$7.182 billion (World Almanac, 2003). In 2005, however, the percentage of Algeria's GDP for primary education decreased to 1.6%, or a little over \$3.73 billion, which is a decrease of over \$3.4 billion (UNESCO, *EFA*, 2006, World Almanac, 2007). Although the decreases in the dollar amount used for primary education in Nepal and Peru were not as large as that of Algeria, it is still noteworthy. Nepal's expenditures on education as a percentage of its GDP decreased from 2.5% (\$842,500,000) in 2000 to 1.3% (\$518,700,000) in 2005, a decrease of more than \$323 million (Fiske, 2001; UNESCO, *EFA*, 2006, World Almanac, 2003; World Almanac, 2007). During this same period of time, Peru's expenditures on primary education fell from 3.2% (\$3,936,000,000) to 1% (\$1,645,000,000) of the country's GDP, a decrease of \$2.29 billion (Fiske, 2001; UNESCO, *EFA*, 2006, World Almanac, 2003; World Almanac, 2007).

All six countries enjoyed positive growth in their respective Gross Domestic Product (GDP). Differences in the value of the six countries' 2005 GDPs were notable with Afghanistan having the lowest GDP at \$23.22 billion and Algeria having the highest valued at \$233.2 billion. Despite growth in each country's GDPs, the expenditures on primary education as a percentage of the GDP saw three countries increasing both the percentage and dollar amounts, while the other three decreased expenditures as a percentage of the GDP and actual dollar amounts.

*Country by Country Analysis**Afghanistan***Table 4. 2000 and 2005 Data for Afghanistan**

	2000	2005
% Enrolled	33	41
% Rural population	78	76
Student-teacher ratio	47:01:00	65:01:00
% of GDP	1	3

Of the six case studies, Afghanistan is certainly the farthest from achieving 100% primary education by 2015, although its primary enrollment increased notably from 33% to 41%. In 1996, the Taliban government gained control over the country and imposed strict, fundamentalist Islamic rule (World factbook, 2007; Machel & Mandela, 2002). According to Machel and Mandela (2002), women teachers were removed and education for girls was banned under the Taliban government. Thus, religious and gender issues also became themes under the various social factors that can affect a country's primary enrollment. In addition, it is estimated by UNICEF that approximately 80% of the country's schools were destroyed during the Taliban rule with the remaining 20% being listed in poor condition (Machel & Mandela, 2002). Even before the Taliban implemented its rule, Afghanistan suffered from more than two decades of political strife, which deprived an entire generation of an education (Morrison, 2002). Consequently, Afghanistan's literacy rate at the time of the United Nations' Millennium Development Goals ranked as the sixth lowest in the world (Morrison, 2002). In fact, the 2005 United Nations Development Programme Report [UNDP] continued to list Afghanistan's literacy rate as one of the seven lowest with only Benin, Sierra Leone, Chad, Mali, Niger, and Burkina Faso having lower literacy rates.

With the removal of the Taliban government in 2001 by the United States, in cooperation with anti-Taliban forces, the United Nations outlined a plan for the implementation of a democratically-elected government (World factbook, 2007). This included the adoption of a new constitution and an elected president in 2004, with an elected National Assembly being organized in 2005 (World factbook, 2007). Although Afghanistan has improved its political and economic situation since 2001, the truth of the matter is that it is still extremely poor with living standards that are among the lowest in the world (World factbook, 2007).

Manzo (2006) noted that, during the Afghan reconstruction, numerous United States agencies, private donors, and other international organizations provided assistance in building schools, training teachers, and providing educational resources. This assistance has contributed greatly to primary

education in rural areas and in improving the educational opportunities for girls who were previously banned from receiving a formal education (Manzo, 2006). For example, in 2002, a variety of non-government organizations (NGOs) based out of the United States organized the Afghanistan Basic Education Consortium (ABEC) in cooperation with Afghanistan's Ministry of Education (Zhao & McNerney, 2006). According to Zhao and McNerney (2006), the main objective of ABEC was to improve the access to and quality of basic education in rural areas that previously lacked the means to education, especially for young girls. This is especially noteworthy given that 76% of Afghanistan's population lived in rural areas as of 2005 (UNDESA, 2007). Zhao and McNerney (2006) further stated that, in addition to building new schools, Afghan teachers must receive better training in teaching methods and how to cope with the gender barrier created under the Taliban.

Although the student-teacher ratio increased in Afghanistan from 47 students per teacher to 65 students per teacher, according to Fiske (2001), this increase is largely due to girls now being allowed to attend school (UNESCO, *EFA*, 2006). As a result, ABEC has directed a great deal of its emphasis on increasing the numbers of qualified teachers to meet the increased student population (Zhao & McNerney, 2006). Recruitment of qualified teachers, however, can only be accomplished as more students receive the necessary educational background (Zhao & McNerney, 2006). ABEC and other non-government efforts are currently undertaking the leading role in establishing Afghanistan's education system. For instance, access to rural education and teacher training programs has contributed considerably to the country's primary enrollment increase (Manzo, 2006; Morrison, 2002; Zhao and McNerney, 2006).

From 2000 to 2005, the education expenditures as a percentage of the GDP increased from less than 1% to 3% (Fiske, 2001; Sarvi, 2003; UNESCO, *EFA*, 2006, *World Almanac*, 2003; *World Almanac*, 2007). The *World Factbook* (2007) notes that Afghanistan has benefited from an outpouring of international aid since the end of the Taliban and that Afghanistan's GDP experienced an increase of over 8% in 2006. Unfortunately, over three billion dollars of the GDP stems from the illegal opium trade as opposed to legal jobs being created by a true healthy economic growth (*World Factbook*, 2007). So, while the GDP has increased, the fact that a sizeable portion of this increase came from illicit activities does not contribute significantly to the percentage of the GDP devoted to education expenditures (*WORLD FACTBOOK*, 2007). Consequently, the Ministry of Education developed a series of five-year plans to improve education as the Afghan economy becomes more stable (Morrison, 2002).

As Afghanistan makes the transition from the Taliban rule to democracy, the Afghan Ministry of Education has established primary education for boys and girls as its most important priority (Morrison, 2002). Nonetheless, Afghanistan still has a long way to go in order to achieve the United Nations' Millennium Goal by 2015.

*Nepal***Table 5. 2000 and 2005 Data for Nepal**

	2000	2005
% Enrolled	70	79
% Rural population	86	84
Student-teacher ratio	39:01:00	40:01:00
% of GDP	2.5	1.3

Cultural barriers have long prevented girls from receiving a primary education in the southern and western regions of Asia (DFID, 2001; UNESCO, *Asia*, 2001; UNESCO, 2000). This has certainly been the situation in Nepal, which, along with Afghanistan, served as the focus of this study in Asia. These countries provided good examples of how gender, societal, and religious issues serve as major themes for this study.

According to the *World Factbook* (2007), almost one-third of Nepal's population lives below the poverty line. Nepal's sizable rural population decreased from 86% of its total population in 2000 to 84% in 2005 (UNDESA, 2007). This largely rural population also reflects the fact that agriculture accounts for 38% of the country's GDP (World factbook, 2007), thus creating the common supposition that little value is placed on education in general due to the traditional rural lifestyles (Burchfield et al, 2002; World factbook, 2007; Robinson-Pant, 2004). This is pertinent to this study's first research question, in which a country's percentage of students enrolled in primary education is compared to its rural population. Previous studies by Burchfield et al. (2002) and Robinson-Pant (2004) focused specifically on the importance of providing girls in Nepal with the means to receive an education. Burchfield et al. (2002) concluded that literacy programs targeting females led to greater political, economic, and social awareness and participation, which contributed to the overall development of Nepal. In addition, Robinson-Pant (2004) concluded that providing girls with a primary education is an important step to empowering Nepalese women.

With rural education and education for girls targeted as major education objectives, the Nepalese Ministry of Education established the goal of opening 10,000 primary schools by 2002 (UNESCO, 2000). According to UNESCO (2000), the intent was to have a primary school close enough to each village so that children can easily walk to school. Bista (2005) reported that 3,984 primary schools were constructed between the years 1997 and 2003, which was significant growth yet far below the targeted number. Robinson-Pant (2004) attributed this failure to achieve the 2002 goal to government policy that continues to favor upper class students rather than the poor of the rural areas.

Consequently, international assistance, such as programs sponsored by UNESCO, continues to play an important role in improving rural education (Robinson-Pant, 2004).

With the Nepalese government and international organizations focusing on primary education in rural areas, Nepal's student-teacher ratio has held fairly consistent going from 39 students per teacher in 2000 to a slight increase of 40 students per teacher in 2005 (Fiske, 2001; UNESCO, *EFA*, 2006). The Nepal government established a mandate that at least one female teacher be employed at each primary school in order to help recruit female students (UNESCO, 2000). Regardless, traditional economic and social views toward girls continue to emphasize domestic roles such as raising children and taking care of the household (UNESCO, 2000).

Nepal was one of three countries examined that suffered a decrease in the percentage of the GDP used for education expenditures dropping from 2.5% in 2000 to 1.3% in 2005. This decrease continues to reflect the largely agricultural economy of Nepal, which employs nearly 75% of the population (World factbook, 2007). In addition, Nepal suffers from a lack of foreign investment due to an inadequate technological base and poor location (World factbook, 2007).

### *Algeria*

**Table 6. 2000 and 2005 Data for Algeria**

	2000	2005
% Enrolled	94	97
% Rural population	43	40
Student-teacher ratio	28:01:00	27:01:00
% of GDP	4.2	1.6

The two African countries chosen as case studies were Algeria and Uganda. Both of these countries gained their independence in 1962 after lengthy colonial rule by France and Britain respectively (World factbook, 2007). Consequently, as is true of many African countries whose independence is less than fifty years old, these countries have endured tremendous struggles in achieving political and social stability while attempting to develop their economies.

During the early 1990s, Algeria established a compulsory education system, which required six years of primary education (Clark, 2006). Due to this compulsory education, 95% of the students were enrolled in primary education as of 2003 (Clark, 2006). Because primary education is compulsory, the government is responsible for providing equal access and free education for all children (Kateb, 2003). With 94% of Algerian students enrolled in primary education in 2000, 95% in 2003, and 97% in 2005, Algeria appears to be well on its way to achieving the United Nations' Millennium Development Goal (Clark,

2006; Fiske, 2001; UNESCO, *EFA*, 2006). Yet, approximately 40% of its population resides in rural areas (UNDESA, 2007). What makes Algeria unique in comparison to the other case studies is that non-government agencies have been largely restricted from offering alternative sources of education (Kateb, 2003) due to the government's mandate regarding education.

Another important factor in Algeria's success toward primary education is its post-secondary teacher-training institutes and university programs, which operate under the auspices of the Algerian Ministry of Higher Education (Clark, 2006). As a result, Algeria's student-teacher ratio remained fairly consistent from 28:1 in 2000 to 27:1 in 2005 (Fiske, 2001; UNESCO, 2006). In short, required primary education created a steady demand for an ample number of teachers, which have been provided through the institutes, to meet the needs of the students.

In Algeria's case, it has also enjoyed the economic benefits of having the 18<sup>th</sup> largest oil reserves in the world (World factbook, 2007). Despite having the advantage of a resource with a high world demand, Algeria has suffered from internal political strife since its independence, which has had a negative impact on its ability to address many social concerns (World factbook, 2007). Although primary education enrollments remain high, the percentage of the GDP spent on primary education, and education as a whole, decreased by 2.6%, or \$3.4 billion, during the years included in this study (Fiske, 2001; UNESCO, *EFA*, 2006; World Almanac, 2003; World Almanac, 2007). This decrease in primary education as a percentage of the GDP coincides with the declining number of primary education students (Kateb, 2003). For instance, Kateb (2003) reported that education expenditures were at a high of approximately 10% of the GDP after a notable population boom occurred shortly after primary education was required in the 1990s. Along with the decreased expenditures for primary education as a percentage of the GDP, Kateb (2003) reported that the number of primary students in Algeria is expected to decrease by nearly one million students between 2000 and 2015.

Nonetheless, UNDESA (2007) reported that Algeria enjoyed a high enrollment rate of 97% in primary education as of 2005. This impressive enrollment rate in primary education has increased steadily since 1990, when the rate of primary school completion was at 80% (Clark, 2006). While enrollment rates remain high, it is also important to note that primary education completion rates tend to be several percentage points lower than enrollment (Clark, 2006). Kateb (2003) reported that 3.7% of enrolled primary students dropped out of school before completing the fifth grade. For example, in Kateb's research (2003), he found that many children drop out of school to find work, thus the literacy rate remains a general concern.

Algeria currently stands as one of the developing countries most likely to continue favorable progress toward achieving the United Nations' primary education goals. Not only has it enjoyed a high percentage of students enrolled

in primary education, but the demographics of the country indicate that the primary school-aged population will experience a decrease from 4.4 million in 2000 to 3.5 million in 2015, thus better ensuring a sufficient number of schools to meet the educational needs of the country.

### *Uganda*

**Table 7. 2000 and 2005 Data for Uganda**

	2000	2005
% Enrolled	87	87
% Rural population	88	88
Student-teacher ratio	60:01:00	50:01:00
% of GDP	2.02	2.5

When Britain established the boundaries of Uganda, it did so with little regard to the variety of ethnic groups found in the region, which has created a history of political and cultural divisions (World factbook, 2007). Although Uganda has experienced economic growth over the past two decades, agriculture remains the primary facet of the economy and continues to employ nearly 80% of the labor force (World factbook, 2007). This dependency on agriculture is reflected by the fact that the percentage of Uganda's population residing in rural areas has remained constant at 88% from 2000 to 2005 (UNDESA, 2007).

At the same time, Uganda's educational policies have gone through some favorable changes, which have contributed to the fact that 87% of its students were enrolled in primary education since 2000 (Fiske, 2001; UNESCO, *EFA*, 2006). Among the more notable changes in Uganda's education system have been a determined effort to recruit teachers, continue construction of schools, distribute textbooks, and eliminate user fees for primary education (*EFA*, 2002). According to Kattan & Burnett (2004), the World Bank and UNICEF are opposed to education fees in developing countries, which include tuition, textbook fees, required school uniforms, and even exam fees. Such fees often create financial obstacles for families who would otherwise support their children attending primary school (Kattan & Burnett, 2004). Uganda has in fact removed many of its education fees, which have helped close the disparity in education between the rich and poor and boys and girls (*EFA*, 2002).

During this same period of time, Uganda's percentage of the GDP involving primary education expenditures increased from 2.02% in 2000 to 2.50% in 2005 (Fiske, 2001; UNESCO, *EFA*, 2006, World Almanac, 2003; World Almanac, 2007). While the percentage increase appears to be slight, Uganda experienced a significant increase in its GDP resulting in primary education expenditures to increase from \$529,240,000 to over \$1.2 billion (Fiske, 2001; UNESCO, *EFA*, 2006, World Almanac, 2003; World Almanac, 2007). Furthermore, Uganda

continues to actively recruit teachers, build or remodel schools, and exercise more local, rather than national, control over education financing (EFA, 2002). As of 2002, 549 learning resource centers for teacher recruitment and training were established throughout Uganda (USAID, 2002). Given the loss of education fees, local autonomy over education expenditures helps to ensure that funding is used efficiently by area schools (EFA, 2002). Despite these positive changes in education, challenges that must still be faced involve concerns over access to schooling for all children, efficiency, and large class sizes (Elwana, 2000; O’Sullivan, 2006).

Since many developing countries, such as Uganda, lack the financial resources to train and recruit teachers, the student-teacher ratio tends to be quite high. In Uganda’s situation, learning resource centers for recruiting and training teachers helped reduce the student-teacher ratio average from 60:1 in 2000 to 50:1 in 2005 (Fiske, 2001; UNESCO, EFA, 2006). However, in some schools the student-teacher ratio remains in excess of 100:1 (O’Sullivan, 2006).

### *Peru*

**Table 8. 2000 and 2005 Data for Peru**

	2000	2005
% Enrolled	92	97
% Rural population	27	25
Student-teacher ratio	29:01:00	22:01
% of GDP	3.2	1

The last two case studies, Peru and Venezuela, are developing countries from the region of Latin America. As of 2005, Peru enjoyed one of the higher percentages of students enrolled in primary education among developing countries throughout the world with 97% (UNESCO, EFA, 2006). In contrast to Uganda’s 88% rural population, Peru has a much lower percentage of its population residing in rural areas with only 25% (UNDESA, 2007). It is also interesting to note that, among the six case studies, Peru also had one of the lowest student-teacher ratios at 22:1 with only Venezuela being lower at 21:1 (UNESCO, EFA, 2006). Peru’s anomaly, however, is that, despite increasing its primary enrollments to 97%, its expenditures on primary education as a percentage of the GDP decreased substantially to approximately 1% or an estimated \$2.29 billion (UNESCO, EFA, 2006; World Almanac, 2007).

Peru has a history of authoritarian leaders with democratically-elected leaders being a more recent political development especially in the last decade (World Factbook, 2007). Despite Peru’s economy showing a positive growth rate of more than 4% from 2002 to 2006, low wage jobs and poverty remain serious

issues (World Factbook, 2007). The 2001 election of Alejandro Toledo as Peru's first indigenous president appealed to the country's large native population who have suffered the most economically (Sweeney, 2003). According to Sweeney (2003), Toledo's political agenda includes constitutional provisions promoting greater equity in nutrition, health, and educational programs. Furthermore, Toledo targeted the rural population in general and girls specifically to be recipients of greater opportunities for primary education in his attempt to combat poverty (Sweeney, 2003). In addition to adding equal rights provisions to the constitution, Toledo is an advocate of legislation calling for multicultural education so that the various Peruvian cultural groups are included (Sweeney, 2003).

Peru's President Toledo is a committed advocate of primary education, yet, of the six countries included as case studies, more literature was found regarding the role of outside funding for education in Peru than in any of the other studies. Outside funding for primary education in Peru has been provided by the World Bank, the German Agency for Technical Cooperation, the European Commission, and the United States Agency for International Development (Wu, 2001). Through the funding and cooperation of these organizations in conjunction with the Peruvian government, a variety of educational issues have been targeted including primary teacher training, bilingual/multicultural curriculum development, gender issues, and rural education (Garcia, 2004; Wu, 2001).

### *Venezuela*

**Table 9. 2000 and 2005 Data for Venezuela**

	2000	2005
% Enrolled	88	92
% Rural population	13	12
Student-teacher ratio	27:01:00	21:01
% of GDP	4.17	5.2

In 1999, the people of Venezuela elected Hugo Chavez as president, and since then, President Chavez has become known as one of the leading spokesmen against the United States' policies in Latin America (World Factbook, 2007). More specifically, Chavez's attitudes and policies reflect those of what Handelman (2006) refers to as *dependencistas*. Handelman (2006) defines *dependencistas* as people who feel that the more industrialized countries, such as the United States, have consciously maintained a situation in which less developed countries, such as those in Latin America, have become dependent on the more developed countries. Because of this resentment toward the United

States' policies, Chavez has become an active proponent of democratic socialism in that he has sought to extend government control over the country's extensive oil reserves in order to use the revenue for dealing with a variety of Venezuela's social and economic problems, including education (World Factbook, 2007). Given Chavez's commitment to education, it is anticipated that the education budget will increase to 7% of Venezuela's total GDP (Government of Venezuela [GoV], 2004). As of 2005, the percentage of the GDP spent on primary education had already increased to 5.2%, an increase of nearly \$1.9 billion (Fiske, 2001; UNESCO, *EFA*, 2006, World Almanac, 2003; World Almanac, 2007).

With only 12% of its population being rural, Venezuela has a significantly smaller rural population in contrast to the other countries included in this study (UNDESA, 2007). It has also increased its percentage of enrolled primary education students to 92% (UNESCO, *EFA*, 2006). According to the most recent Venezuelan constitution implemented during Chavez's tenure, education is regarded as a human right, which should be democratic, free, and compulsory (Diaz, 2002; GoV, 2004). As a result, Chavez's administration has developed the Bolivarian School project, which is intended to provide greater access to primary education while promoting patriotism and good citizenship (Cordova, 2000; Diaz, 2002; Orozco, 2006).

Since his election, Chavez prohibited any education fees on the basis that such fees prevented children of poorer families from attending school (GoV, 2004). Furthermore, according to the Government of Venezuela (2004), Chavez's Bolivarian school project, which now numbers over three thousand schools, offers students breakfast and lunch, medical treatment, and access to computers. As part of the Bolivarian school project, more teachers have been recruited by doubling their salaries (GoV, 2004). As a result, the percentage of students enrolled in primary education throughout Venezuela as of 2005 rose to 92% (UNESCO, *EFA*, 2006), while the student-teacher ratio decreased from 27:1 (Fiske, 2001) to 21:1 (UNESCO, *EFA*, 2006). In fact, Venezuela's Minister of Education and Sports, Aritobulo Isturiz, who is an active proponent of the Bolivarian school project, expects Venezuela to meet the 2015 primary education Millennium Development Goal established by the United Nations possibly as early as 2007 (Wagner & Wilpert, 2005).

### ***Summary***

The following statements summarize the findings presented in this article.

1. Although Uganda's percentage of students enrolled in primary education remained constant at 87%, the other five countries used as case studies showed progress toward primary education. This progress ranged from Algeria, which increased its percentage of students enrolled in primary education from 94% to 97% for an increase of +3%, to Nepal, which went from 70% to 79% for an increase of +9%.

2. Although all of the countries included in this study maintained positive population growth rates, five of the six countries experienced a declining rural population while increasing their percentage of students enrolled in primary education. Only Uganda's population stayed constant. Decreases in the rural populations of the six countries ranged from -1% in Venezuela to -3% in Algeria.

3. Two countries increased their student-teacher ratios with Afghanistan going from a ratio of 47:1 to 65:1 and Nepal increasing from a ratio of 39:1 to 40:1. The remaining four countries showed decreases in their student-teacher ratios. Overall, the 2005 student-teacher ratios ranged from a low in Venezuela of 21:1 to a high in Afghanistan of 65:1.

4. All six countries enjoyed positive growth in their respective Gross Domestic Product (GDP). Differences in the value of the six countries' 2005 GDPs were notable with Afghanistan having the lowest GDP at \$23.22 billion and Algeria having the highest valued at \$233.2 billion. Despite growth in each country's GDPs, the expenditures on primary education as a percentage of the GDP saw three countries increasing both the percentage and dollar amounts, while the other three decreased expenditures as a percentage of the GDP and actual dollar amounts.

### ***Conclusions***

The following conclusions were drawn from the analysis of the six developing countries.

1. Developing countries must devise long-term goals and strategies to improve the availability of primary education in rural areas, where large percentages of the population continue to reside. Whereas the three countries with the most rural populations have the lowest primary enrollments, the three countries with the least rural populations have the highest enrollment rates.

2. The availability of primary education teachers continues to be a concern in many developing countries. The three countries with the lowest student-teacher ratios, Algeria, Peru, and Venezuela, enjoy the highest enrollment rates.

3. The expenditures on education as a percentage of the Gross Domestic Product can be a significant indicator of success; however, dollar amounts vary considerably among developing countries making it difficult to make a clear comparison. For example, Uganda and Venezuela both witnessed greater expenditures for education, but Uganda's enrollment rate did not change. On the other hand, Afghanistan increased expenditures as a percentage of its GDP; however, Afghanistan, Nepal, and Peru also received a great deal of outside funding. Moreover, Afghanistan's illicit opium trade accounts for a notable increase in its total GDP. Furthermore, Algeria's reduced expenditures on primary education coincide with declining student numbers.

4. Although many developing countries have made great strides in the percentage of students enrolled in primary education, other countries still have a

long way to go before they meet 100% primary education goals by 2015. Bruns et al. (2003) estimated that thirty-seven developing countries have essentially reached the goal and another thirty-two countries are on track to meet the goal by the target year of 2015. Unfortunately, eighty-six countries are at risk of not meeting the goal (Bruns et al., 2003). More recent studies by the World Bank (2007) indicate that as many as 38% of developing countries will unlikely reach the MDG of primary education by 2015.

Based on this study, Algeria, Peru, and Venezuela, with currently over 90% primary enrollments, could achieve the goal by 2010. Uganda and Nepal are on pace to achieve the goal by 2015, while Afghanistan will likely need more time beyond 2015 in order to achieve 100% primary enrollment for all boys and girls.

5. Overall, the comparative quantitative data resulting from this study suggests, but does not confirm, that relationships may exist between some of the noted factors and primary school enrollment. In fact, in conducting this study, it is apparent that there are many political, economic, and social factors that can affect a country's progress toward primary education. The World Bank (2007) reported that many developing countries must deal with obstacles affecting the education of girls such as ethnic, religious, or minority barriers. The transition from the former traditional Islamic rule of the Taliban in Afghanistan, which prevented girls from receiving an education, to more open educational settings in the post-Taliban era are a good example of the barriers that must be overcome.

### ***Discussion***

This article focused on six specific developing countries and their progress toward primary education in relation to the countries' rural-urban demographics, the student-teacher ratios, and their expenditures on education as a percentage of the Gross Domestic Product. Through the research conducted on the progress of primary education in each of the countries examined, it is apparent that many other political, economic, and social factors can influence how well a country will progress toward the United Nations' Millennium Development Goal of universal primary education by 2015. Furthermore, given the many developing countries around the world, it is obvious from conducting this study that not all developing countries are on target to achieve universal primary education by the target date.

Several significant themes were noted that contribute to an understanding of how developing countries are progressing toward universal primary education. For example, a common obstacle to providing primary education appears to be the percentage of a country's population who live in rural areas. In this study, three countries were found to have small rural populations while enjoying high percentages of students enrolled in primary education. Venezuela had 92% enrollment in 2005 with only a 12% rural population. Furthermore, Algeria and Peru maintained the highest enrollments at 97% each with 40% and 25% rural

populations respectively. On the other end of the continuum is Afghanistan with the lowest enrollment in 2005 of only 41%, while its rural population included 76% of the country's population. While a country's rural population may be an obstacle for some countries, others are making conscientious efforts to educate those who live in rural areas. For example, Nepal increased its enrollment from 70% in 2000 to 79% in 2005, while its rural population declined from 86% to 84% during the same period. At the same time, Uganda remained constant at 87% enrollment and 88% rural population for both 2000 and 2005. Like Nepal, Afghanistan has most recently maintained barriers to females gaining an education; a situation that is improving in rural regions.

The availability of primary education teachers is also a major concern for many developing countries. This becomes more evident when examining the student-teacher ratios of the countries included in this study. Of the six case studies, the lowest 2005 enrollments were in Afghanistan (41%), Nepal (79%), and Uganda (87%). These also happen to have the highest student-teacher ratios in 2005 at 65:1, 40:1, and 50:1 respectively. Meanwhile, Algeria, Peru, and Venezuela all had enrollments ranging from 92% to 97% in 2005, and they had low student-teacher ratios ranging from 21:1 in Venezuela to 27:1 in Algeria.

The percentage of each country's GDP used for primary education also reflected some disparities. Among the case studies, three countries (i.e. Algeria, Nepal, and Peru) actually experienced significant decreases in primary education expenditures as a percentage of the GDP. On the other hand, Afghanistan, Uganda, and Venezuela increased expenditures from 2000 to 2005. Yet, regardless of whether expenditures increased or decreased, five of the six case studies experienced increased primary education enrollments.

Some general regional differences were also noted. First of all, in Latin America, Peru and Venezuela have small rural populations that account for 25% or less of their total populations. Secondly, both countries have low student-teacher ratios of 22:1 and 21:1 respectively. Meanwhile, the Asian countries of Afghanistan and Nepal have become more conscientious about educating girls and recruiting female teachers. As mentioned earlier, funding for education is still a concern, although some countries, such as Venezuela, have made education funding an important priority, whereas other countries, such as Peru, have depended on funding from a variety of outside non-government organizations.

Perhaps the most poignant finding of this study is that there are indeed many political, economic, and social factors that can affect a country's progress toward primary education. In many instances, the political attitudes and policies of a country's government impact the significance placed on education. While this is evident in each of the countries studied, the individual situations vary considerably from allowing girls to be educated after the fall of Taliban rule in Afghanistan to compulsory education in Algeria. In selecting the countries that served as the case studies, Afghanistan was especially intriguing due to the major political changes that it has experienced during the five years included in this

study. Indeed, politics shape educational policies in a multitude of ways, which can include school funding, teacher training, and the availability of curriculum resources. In Afghanistan, however, education expenditures will be dependent on how well Afghanistan can increase its GDP and provide greater state funding for education (Morrison, 2002).

Social and cultural factors, unfortunately, continue to hamper the success of education in many developing countries as well as the overall political and economic development. Class division, gender issues, religion, ethnic disputes, and teacher recruitment are among the more notable obstacles that many countries must face while striving for universal primary education. In Afghanistan, gender and religious issues were especially notable in regard to primary education. Although O'Sullivan (2006) stated that the large student-teacher ratios can be overcome, it depends on training teachers to use good instructional methods such as whole-class rote learning, group work, and working in pairs. Nonetheless, the sheer numbers of students to teachers still remain a concern in developing countries striving to improve not only their enrollment in primary education but the overall quality of education.

Finally, the economic factors affecting a developing country and its success toward primary education can also be significant. In short, the government can provide increased funding for education only if its economy makes some much-needed progress. This is more evident in Venezuela as the oil industry becomes more nationalized under Chavez's leadership. At the same time, it is important to note who among the people benefit the most from a growing economy. For example, the economic benefits of large oil reserves in Algeria have not always been used for the betterment of all Algerians. Some developing countries may be lacking in the area of education, yet they have valuable resources that can contribute valuable funding to education. In some countries, foreign investment is deemed necessary in order to achieve universal primary education. For instance, with agriculture continuing to play a significant role as part of Nepal's GDP and with little foreign investment, the expenditures devoted to education as a share of the GDP are expected to remain inadequate (World Factbook, 2007). At the same time, many developing countries see education as the means to becoming developed regardless of the availability of resources. In such cases, an educated citizenry is viewed as the resource necessary for development. This has in fact become a major motive for promoting education in Nepal.

As is evident, a multitude of circumstances must be considered, researched, and dealt with accordingly if the United Nations' Millennium Development Goal of universal primary education is to be achieved by 2015. Although many countries are making noteworthy progress, many still remain far from successfully ensuring a minimum of a primary education for all boys and girls. Based on the six countries included in this study, developing countries can be placed in one of three categories in regard to achieving universal primary education. Many countries, such as Algeria, Peru, and Venezuela, appear to be

well on their way to meeting the United Nations Millennium Goal by 2010. Meanwhile, other countries, such as Uganda and Nepal, still have hopes of achieving the goal by the targeted year of 2015. On the other hand, countries, such as Afghanistan, will likely need much more time beyond 2015 before reaching 100% primary education enrollments.

Since the Millennium Development Goals were established in 2000, many developing countries have made noteworthy gains in achieving universal primary education. However, the progress toward universal primary education must be tracked and studied if the goal is to be achieved by 2015.

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