Breaking the Cycle: The Causes and Effects of Uneducated Girls in Rwanda and Pakistan

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Abstract
This article explores girls’ education in Rwanda and Pakistan. It examines the causes of a lack of girls’ education, the impacts, and how breaking the cycle of uneducated girls can cause positive change in Rwanda and Pakistan. This article also reviews the reasoning for putting the education of boys ahead of the education of girls in the two countries. As shown in the so-called Girl Effect, educating girls will prevent them from getting pregnant at a young age, living a life of poverty, having to sell their bodies, and potentially contracting communicable diseases such as HIV/AIDS. This article aims to understand why breaking the cycle of uneducated girls is more difficult for certain countries than for others, and what steps must be taken to break this cycle.

I. Introduction
One of the most pressing problems facing developing countries today is the cycle of uneducated girls. Many children and teenagers living in industrialized countries take their government-funded free primary education for granted. In many developing countries, this is a privilege girls can only dream of as their families are forced to pay for their education. The cost poses a great challenge for the majority of families in the developing world, due to their low income and large number of children.

Historically, low-income families favor educating their boys over educating their girls, leading these girls down a long road of poverty that spreads across generations. Fortunately, there are ways to break the cycle and create positive change, even in developing nations. These countries must realize the worthwhile benefits that come from girls’ education, many of which will in turn better the country as a whole.

This article focuses on girls’ education in Rwanda and Pakistan. Rwanda is classified as a least developed country (LDC), while Pakistan is considered a lower middle income developing country. Data on the percentage of girls versus boys enrolled in school and the subsequent retention rate will be examined to draw conclusions and make inferences related to the cycle of uneducated girls. The article will then explore the reasons for why breaking the cycle of uneducated girls is more difficult for certain countries than for others and discuss the steps that must be taken in order to break the cycle of uneducated girls. Providing girls with an education could solve many of the
problems that the developing world faces, such as teenage pregnancy, girls selling their bodies, and contracting communicable diseases. Despite of all the potential change, it remains difficult for certain countries to take steps towards breaking the cycle.

II. Literature Review

There are numerous sources from academics and organizations that focus on the effects of gender inequality in education, including in the countries of Rwanda and Pakistan. These articles primarily focus on the reason why, despite having certain resources available to them, the cycle of uneducated girls continues to be a major problem. They also explore the economic aspect of uneducated girls as a whole, household schooling decisions, and what steps must be taken to meet the Millennium Development Goals (MDGs).

Klasen (2002) looks at whether low schooling for girls causes slower growth for all. He backs up his argument with cross-country evidence on the effect of gender inequality in education on economic development. The author uses cross-country and panel regressions to discuss the effect of gender inequality in education on long-term economic growth. He argues that gender inequality in education has a direct effect on economic growth because it lowers the average level of human capital. The article specifically focuses on East Asia, Sub-Saharan Africa, South Asia, and the Middle East. The gender gap in education between these regions is explored in hopes of further understanding the disparity in education between girls and boys in developing or least developed countries. Hence, this article provides a useful overview at the regions containing Rwanda (Sub-Saharan Africa) and Pakistan (South Asia).

Sawada and Lokshin (2001) examine household schooling decisions in rural Pakistan. They discuss how school enrollment is low and school dropout rates are high in Pakistan, with a specific focus on the gender gap in education. The authors performed a field survey in 25 Pakistani villages to investigate the sequential nature of how education decisions are made, looking at both current outcomes and how they connect with past decisions. They used their field observations, economic theory, and econometric analysis for their investigations. They also examine a) the retention rate conditional on school entry, b) income changes and birth order, and c) supply side constraints on village girls’ primary education.

Building on their extensive experience in examining gender, human rights, and education, Huggins and Randell (2007) discuss gender inequality in education in Rwanda. They argue that Rwanda has made a huge effort to improve access to education for both girls and boys, yet girl students still continue to lag behind the boy students in terms of academic achievement and success. The authors address the importance of gender equality in education, which is necessary if Rwanda wants to meet its development goals and protect women’s human rights within the country. While many improvements have been made towards equality, there is still work that must be done to close the gender gap. The article closes with suggestions for subsequent steps that should be taken in Rwanda.

Khalid and Mujahid-Mukhtar (2002) focus on the future of girls’ education in Pakistan. They conducted research on policy measures and other factors that determine girls’ education. The study develops a profile of female education in Pakistan and emphasizes current gender disparities in primary education and adult literacy. It also reviews past and current policies that have been implemented to promote gender equality in education, and recommend future policies to meet gender equality in Pakistan.
Gabrielson (2010) writes about the so-called “Girl Effect” and how this movement can end the vicious cycle and have numerous positive consequences on uneducated girls as well as positive economic impacts that result from providing education to girls. Gabrielson notes the importance of the Girl Effect in countries like Pakistan, where education for girls is a relatively new concept. On a larger scale, her paper focuses on the benefits of educated girls in terms of power and influence in their communities, in society, and the resulting ability of girls to take control of their future and their body.

III. Empirical Background

When studying the effects of a lack of girls’ education in Pakistan and Rwanda, it is useful to take into the account the evolution as well as the differences in gross domestic product (GDP) per capita, total life expectancy, and literacy rates in both countries. In both countries, GDP per capita has overall been rising along with total life expectancy, which suggests some progress in both countries. However, as the discussion section will show in more details, gender inequality in education remains to be a problem, as is evident in lower school enrollment rates and lower literacy rates for girls versus boys.

As Figure 1 shows, GDP per capita in constant 2011 international dollars (i.e., adjusted for Purchasing Power Parity (PPP)) has slowly but steadily increased in both countries between 1990 and 2012, except that Rwanda saw a temporary decline around the time of the Rwandan genocide. In Pakistan, GDP per capita increased from $2,961 in 1990 to $4,360 in 2012, which is a cumulative increase of 47 percent over a period of 22 years. In Rwanda, GDP per capita in 1990 was a mere $835, less than a third of Pakistan’s GDP per capita in 1990. Rwanda’s GDP per capita then increased to $942 in 1993, then dropped in 1994 to $496, after which it increased to $1,379 in 2012. This implies a cumulative increase of 65 percent from 1990 to 2012.

![Figure 1: GDP per capita in PPP from 1990-2010](image)

Source: Created by author based on World Bank (2014).

As Figure 2 shows, Rwanda saw a moderate increase in total life expectancy at birth between the years of 1970 to 1985 (when it increased from 44.3 years to 49.9 years), followed by a sharp drop until 1994, when it reached a low of 26.8 years. This sharp drop is initially due to the HIV/AIDS
epidemic and then to the Rwandan Genocide. Fortunately, another steady increase followed that drastic drop, leaving Rwanda with a life expectancy at birth of 63.5 years in 2012. Unlike Rwanda, Pakistan experienced a steady rise in total life expectancy at birth between the years of 1970 to 2012. In 1970, the life expectancy was 53.5 years, which steadily increased to 66.4 years over the course of about four decades, in 2012. Like was partly the case with GPD per capita, despite the temporary decline in the early 1990s, Rwanda has narrowed the gap it had to Pakistan.

**Figure 2: Life Expectancy at Birth from 1970-2012**

![Life Expectancy Chart](source)

Compared to GDP per capita and life expectancy, there is little data available on youth literacy rates in Pakistan and Rwanda. Still, using the available data, Figure 3 shows that only 35 percent of all youths (people ages 15-24) in Pakistan were considered literate in 1981. Almost twenty years later, in 1998, that figure had increased to 55 percent, while it rose to 71 percent by 2009, which is more than twice the rate in 1981. Rwanda started off with a considerably higher literacy rate (of 52 percent in 1978) than Pakistan, followed by an increase to 75 percent in 1991, and most recently (2010) reaching 77.3 percent. Hence, though the growth rates of youth literacy were higher in Pakistan than in Rwanda over the whole observation period, Rwanda’s youth literacy rates were always higher than those of Pakistan, despite Rwanda having a lower GDP per capita and lower life expectancy. Nevertheless, the progress in both countries provide a source of hope for the improvement of education in these two developing countries. However, when separating literacy rates by gender, females consistently lag behind males by approximately 10 percent in both countries (World Bank, 2014).
Figure 3: Total Youth Literacy Rate, all available years

Source: Created by author based on World Bank (2014).

IV. Discussion

Breaking the cycle of uneducated girls in Rwanda and Pakistan will have numerous positive effects, some could even move a country towards crucial improvements across all sectors. While breaking the cycle does not come without difficulties, there are certain steps that can be taken that will result in improvements for a country as a whole, in addition to improving the quality of life for the girls living in the developing world. This discussion section will first review the longer term trends in the gender gap of education in Rwanda and Pakistan. It will then examine the causes as well as some steps that can be taken to break the cycle of uneducated girls and poverty.

IV.1. Gender Gaps in Education in Pakistan and Rwanda

When looking at the trends of school enrollment for females versus males at the primary, secondary, and tertiary levels (see Figures 4 to 6 below), there is a clear divide visible for both countries, though Rwanda has eliminated the gap more recently in the primary and secondary level. Additionally, in both countries, less than half of the children of both genders receive a secondary education and less than 10 percent are enrolled at the tertiary level.

- Pakistan: In 2012, the gross primary school enrollment for females was 86 percent, compared to 99 percent for males, which implies a gender gap of 13 percentage points. With regards to secondary school enrollment, the gender gap is with 11 percentage points slightly lower, however, given that secondary school enrollment ratios were 31 percent for girls and 42 percent for boys, the gender gap is much higher in relative terms. The gender gap is however relatively small for tertiary school enrollment, though a mere 9.3 percent of girls and a marginally higher 9.7 percent of boys are enrolled at the tertiary level. All of these figures were an improvement from the statistics taken in 1971, especially for girls. Hence, despite currently still large gender gaps at all levels of education, the gender gaps were even larger in the past.
Rwanda: In 2012, the gross primary school enrollment for females was with 135 percent slightly higher than the 132 percent for males. However, for most of the previous years, the numbers for females were lower. With regards to secondary school enrollment, the 2012 data also show a catching up of girls, though once again, female enrollment ratios have traditionally been lower than male enrollment ratios. Like was the case in Pakistan, gross tertiary school enrollment ratios are far lower than secondary school enrollment ratios, but unlike in Pakistan, there is a considerable gender gap at the tertiary level in Rwanda: 6.0 percent for females versus 7.8 percent for males.

Figure 4: Primary School Enrollment

Figure 5: Secondary School Enrollment (%)

Source: Created by author based on World Bank (2014).
Both Pakistan and Rwanda are facing major issues when it comes to the cycle of uneducated girls. In Pakistan, the human capital investments are performing poorly with low school enrollments and high dropout rates in high school. Research finds that there is a large and defined gender gap in education in Pakistan (Sawada and Lokshin, 2001). In Rwanda, they have made great improvements in promoting gender equality in education, but female students continue to lag behind the male students in terms of educational achievement and access. Girls are also more likely to attend non-government regulated private schools of lower educational quality (Huggins and Randell, 2007).

Sawada and Lokshin (2001) aim to explicitly examine the dynamic and sequential aspects of schooling decision in Pakistan by conducting field surveys in rural Pakistan. They find that the high school retention rate is conditional on school entry, and students’ progression rates in school become more comparable between male and females at higher levels of education. Although there are less girl students enrolled in the higher levels of school, these girls perform just as well as the male students do (Sawada and Lokshin, 2001, p. 2). The decision to send a child to school is heavily dependent on the parents’ physical and human asset ownership, income, and health shocks. Finally, there are clear gender-specific birth-order effects, which create a competition for resources among siblings. In low-income families, when parents have a higher number of children, they typically have to invest less in each child (Sawada and Lokshin, 2001, p. 3). This creates a competition among the siblings for the resources to escape the poverty they were born into.

Sawada and Lokshin derive an econometric model that can be used to estimate the conditional schooling probabilities in Pakistan. Through field research, they identify key features of human capital investments in rural Pakistan. They then apply the standard theory of dynamic schooling investment decisions to derive their model. Sawada and Lokshin’s research begins by examining the key features of household behaviors. They conducted two rounds of interviews – the first round in 14 villages of the Punjab Province and the second round in eleven villages of the North-West Frontier Province. A total of 367 households were interviewed and information on a total of 2,365 children was collected (Sawada and Lokshin, 2001, p. 3).
The researchers were shocked by the high educational retention rate conditional on school entry. Their study shows that females averaged 1.6 years of schooling while males averaged 6.6 years, a significant difference between genders. However, if a child had entered primary school, the average amount of schooling rose to 6.0 years for girls and 8.8 years for boys. This research reaffirms the importance of allowing access to primary education, because it will pay off in the long run. Once a child enters school, the retention rate dramatically increases (Sawada and Lokshin, 2001, p. 4). Sawada and Lokshin (2001, p. 5) suggest that the gender gap in education will eventually disappear as children move into the higher stages of education.

On the other hand, Rwanda has already made great strides towards promoting gender equality in education. Yet Rwandan girls continue to lag behind boys in many aspects of the academic world. Huggins and Randell (2007) discuss this disparity and how it relates to the Millennium Development Goals (MDGs) in Rwanda, in addition to Sub-Saharan Africa and the world as a whole. Educating women is crucial for economic development, poverty reduction, and the promotion of human rights. However, despite of all the benefits, young girls in Rwanda continue to fall behind boys in terms of enrollment rates, completion rates, and performance in school (Huggins and Randell, 2007, p. 1).

Rwanda has made great efforts to move towards educational equality for boys and girls. Huggins and Randell (2007, p. 2) explain how Rwanda’s 2003 Constitution lays out a plan to achieve the MDGs of universal primary education, gender equality, and women’s empowerment by promoting gender equality at all levels of education. The 2003 Constitution mandates free primary education for school children and policies in the Organic Education Law were put into place to accomplish these goals. Additionally, gender equality in education is included in the Higher Education Law (Huggins and Randell, 2007, p. 2).

Rwanda has a vision to correct the historical marginalization of girls by improving the educational system, in addition to the political and economic spheres. This vision provided a foundation for Rwanda’s two Poverty Reduction Strategy Papers, which elaborate on these policy goals to meet the objectives set out in the Millennium Development Goals (Huggins and Randell, 2007, p. 3). Rwanda’s first Poverty Reduction Strategy Paper proposed steps to take to increase the rate of completion for girls and promote gender equality within the education system. Some suggested changes include increasing the number of female teachers in schools to serve as role models for female students, educating the communities on the importance of educating girls, providing scholarships for girls who could otherwise not afford to attend school, and making the physical learning environment more accommodating to female students (Huggins and Randell, 2007, p. 3).

IV.2. Difficulties of Breaking the Cycle

There are many factors that cause an inequality in education between boys and girls. However, the root of the issue is that many developing countries do not even recognize men and women as equals. Often times, there is a gender myopia, which is a blindness to inequities between men and women. As pointed out by Nierenberg (2002), this myopia still distorts economic and health policies in all countries. In many developing countries, women lack the right (i) to decide when to have sex and whether to have children or not (and how many), (ii) to have an education equal to that of boys, (iii) to have a fair representation in the government, and (iv) to have equal pay for equal work. Unfortunately, some of the world’s most developed countries, such as the United States, have yet to abolish all of those inequalities. In the United States, women still receive a
lower pay than their male counterpart for the same work. If countries like the United States cannot eliminate these disparities completely, it is even more obvious why developing countries cannot.

Khalid and Mujahid-Mukhtar (2002) discuss the multiple barriers to girls’ education in Pakistan, including family and community factors on the demand side and school and education system factors on the supply side. Family and community factors include poverty, the education of the parents, the status of women and girls in society, the preference for the sons’ education, considerations for personal security of girls and the distance to a school, socialization of girls, girls’ domestic work, and community participation in school. On the school and education systems side, factors include the shortage of girls’ schools and women teachers, the poor condition of physical facilities (including bathrooms for girls), and a lack of quality reading materials (Khalid and Mujahid-Mukhtar, 2002, pp. 30-33).

A lack of girls’ education comes with many negative impacts on developing countries. There is evidence to suggest that gender inequality in education is detrimental to a country’s long-term economic development and growth. Klasen (2002, p. 347) explains that when girls are not given the same access to education as their male counterparts, it can result in high fertility, high child mortality, low economic growth, and continued gender inequality in education for generations to come. These four issues create a poverty trap that is nearly impossible for uneducated girls to escape.

Higher fertility rates lead to unsupported population growth, which can stunt any hope of per capita economic growth for developing countries. If the gender inequality gap in education is lowered, developing countries would see a reduction in fertility rates. Lower fertility rates can affect economic growth in at least four different ways.

- First, lower fertility rates naturally reduce population growth, which is a major issue facing low-income countries that already do not have the resources to support their existing population. If population growth is slowed, it would allow countries to use investments for capital deepening rather than capital widening, which will in turn stimulate economic growth. It is better to invest more money in a smaller group of people than to invest a smaller amount of money across a larger group of people.

- Second, lower fertility will lower the dependency burden. A slower growing population equates to less spending when looking at the developing world. By spending less to support these dependent individuals, the country can instead increase saving rates, in turn causing an increase in economic growth (Klasen, 2002, p. 353).

- Third, lower fertility rates will temporarily increase the share of workers in the population. As a result of previously high population growth, countries will see an increased demand for investment in capital equipment and social overhang (like housing). Ideally, this higher demand will be met with an increase in domestic savings and capital inflows, which allows for investment and growth.

- Fourth, lower fertility will result in increased labor participation rates. This will result in a rise in per capita economic growth, regardless of if wages and productivity remain the same. Essentially, more workers will be spending their wages on less dependents, which will allow for a boost in the average per capita income (Klasen, 2002, p. 353).

These effects may actually suggest an indirect link between girls’ education and economic growth in countries where there is a gender bias in education (Klasen, 2002, p. 347). Klasen (2002, p. 347)
argues that a more balanced distribution of education among girls and boys would lead to higher steady-state per capita income. He backs up his claims with research performed by others that found an association between a low male-female enrollment ratio and lower GDP per capita (Klasen, 2002, p. 349). The problem is the fact that many studies and growth models neglect to account for the impact of gender inequality in education (Klasen, 2002, p. 347).

A major issue related to education in developing countries is the high cost of sending a child to school. Many families do not have the resources or funds to pay tuition for multiple children to attend school. When a family is forced to choose which child to send to school, they often choose the boy over the girl. This gender bias towards boys is in part a historic tradition for many countries. While the boys are at school and the men are working, the women and girls are expected to stay home and perform domestic tasks, which do not include getting an education. Unfortunately, many parents value an educated son over an educated daughter, which continues the vicious cycle of gender inequality in education and stunted economic growth as a result.

IV.3. Steps to Take to Break the Cycle

Breaking the cycle of uneducated girls in both Pakistan and Rwanda will be nothing short of a challenge, but it is a challenge that these countries must take on. By moving towards a culture where educating girls is more accepted, these countries will see tremendous positive changes in terms of social, economic, government, and medical growth. As seen through the research and studies conducted, the barrier between a girl and her education is not only financially driven but also culturally driven. Shifting the culture of educated girls in Rwanda and Pakistan from a negative to a positive will encourage greater financial backing from these countries’ governments, in turn breaking the vicious cycle of uneducated girls.

The “Girl Effect” is a movement created to show the opportunity for significant positive change through the education of girls. As explained in a video (see GirlEffect.org, 2010) and described by Gabrielson (2010), girls in the developing world do not have control of their futures. These girls are often considered adults at the age of twelve, and run the risk of being married and becoming pregnant before the age of 16. With no resources, girls will often turn to selling their bodies to support their family, which drastically increases their risk of contracting and spreading HIV/AIDS.

However, there is a solution. If a girl is given the opportunity to go to school and stay in school until the age of eighteen, it will reduce the risk of teenage pregnancy, teenage marriage, and sex-slavery. She can then use her education to earn a living and to take control over her body and her life. Educated girls will be more likely to avoid HIV/AIDS, and they can get married and have children when they are ready, thus ending the vicious cycle that has been ongoing for generations. Not only will this have a positive effect for the girls in developing countries, but the world as a whole (GirlEffect.org, 2010). These girls will have the opportunity to gain the respect of the men and fight back against the gender disparity that much of the developing world faces (Gabrielson, 2010, pp. 71-72).

Though insufficient, government policies influencing girls’ education have been implemented in Pakistan since the 1990s. Many common provisions for girls’ and women’s education have been endorsed by all policy initiatives in Pakistan. The provisions include universal primary education for girls, more facilities for girls’ education to provide equal access to education, more opportunities for girls secondary education, qualified female teachers for young children,
additional funding for women’s literacy programs, and non-formal basic education programs for out-of-school and drop-out children (Khalid and Mujahid-Mukhtar, 2002, p. 17-18).

V. Conclusion

Although steps have been taken, the cycle of uneducated girls continues today. The countries of Rwanda and Pakistan are just two examples of how the developing world needs to continue the fight against gender inequality in education. Education opens doors to numerous opportunities, most of which are not even an option for women and girls, because they are not treated as equal to their male counterparts. In many developing countries, parents are forced to decide which of their children will attend school, and which will stay home to perform work at home. Due to economic, cultural, and societal factors, educating boys appears to be a better investment than educating girls. However, this mindset allows the cycle to continue, leading girls and women further down the road of generational poverty. Once Pakistan and Rwanda not only recognize but take action to significantly increase the percentage of girls who make it past the primary and secondary school level, they will see how educated girls can better a country as a whole.

However, this article has recognized that breaking the cycle will not be easy. The countries of Pakistan and Rwanda are facing many major internal issues, and girls’ education is not the only challenge they must overcome. Pakistan and Rwanda are both countries very rooted in tradition, which can have an effect on the way decisions are made, especially concerning girls. By recognizing the difficulties and roadblocks that may appear in the quest to break the cycle of uneducated girls, it will help researchers formulate the most effective steps to take. Education equality will not happen overnight, but if both Pakistan and Rwanda recognize the positive benefits of educated girls and set forth a plan to end the cycle, these countries will be moving in the right direction.

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