

Early Marriage and Pregnancy as Factors in School Dropout: An Analysis of DHS Data from Sub-Saharan Africa

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Introduction

Demographers have devoted considerable efforts in recent years to exploring the association between schooling and fertility (Bledsoe, Casterline, Johnson-Kuhn et al. 1999). Education clearly plays a role in the timing of reproductive events; the inverse association of educational attainment with early age at marriage and childbearing, and the positive association of current school enrollment with delayed sexual initiation, have been documented with Demographic and Health Survey data (Lloyd 2005). With the rapid expansion of girls' schooling in sub-Saharan Africa and the greater likelihood of attending school after puberty, the effect of reproductive behavior on school participation among adolescent girls is also now a cause for concern.

Among policymakers and the media, marriage and pregnancy are increasingly mentioned as reasons for premature school-leaving in the region. Anyone who has lived or traveled in Africa and read the local papers, is familiar with the attention given to "schoolgirl pregnancy" – a term which draws attention to the risks schoolgirls face when they stay in school beyond the age of sexual maturity. In most countries, schoolgirls whose pregnancies are detected are required to drop out of school, at least temporarily. While in many settings rules are currently being liberalized to provide for the possibility of reentry, the fraction of new mothers returning to school tends to be low. Thus, there is a high cost associated with becoming pregnant while still in school. A pregnant schoolgirl has to choose between dropping out or undergoing an abortion that is typically illegal, and therefore likely to be unsafe, in order to remain in school. Boys who get girls pregnant do not face these same risks.

Claims about the importance of pregnancy in causing school dropout assume that, were it not for this event, young women would have continued in school. Claims that early marriage compromises school attendance are similarly fraught. Indeed, in many cases, those who married early left school several years before their early marriage or indeed may never have attended school.¹ The problem with assumptions about the link between early marriage and/or childbearing and schooling is that they overlook the possibility that teenage marriage and/or childbearing may be endogenous to school completion (Mensch, Clark, Lloyd et al. 2001; Lloyd and Mensch 1999). The same social and economic circumstances that predispose young women to engage in unprotected premarital sex (and subsequently choose to proceed with the pregnancy rather than abort it) and their families to marry them off at a young age are, in all likelihood, critical factors in early school withdrawal. In short, premature school leaving among girls may be due less to early

¹ Cross-sectional data on school leaving by age and marriage by age suggest on average a roughly 3-5 year gap between the time 50 percent have left school and 50 percent of young women have married (Lloyd 2005).

marriage or pregnancy than to other factors such as unwillingness to invest in a daughter's education, distance to school, or safety or quality of the school.

An increase in the proportion of girls attending school after puberty inevitably leads to a rise in the risk of becoming pregnant while in school. Figure 1, which is based on preliminary analyses of Demographic and Health survey (DHS) data, shows the variation across Sub-Saharan Africa in the percentage of births to 15-19 year old girls that were reported to be due to schoolgirl pregnancy according to the percent enrolled. The rates for South Africa are atypically high, possibly due to the availability of a government child care grant for new mothers. The percent of births due to pregnancy while in school at these ages ranges from one to 25 percent (excluding South Africa) as enrollment rates rise from 10 to 70 percent, with a growing range of values at higher levels of enrollment. However, the percent of all births to adolescents (aged 15-19) that are attributable to school girl pregnancy are no higher than 25 percent of all pregnancies but can be as low as 10 percent in countries where 60 to 70 percent of students are still enrolled in school. Thus, even in the most extreme case, the 70 percent of adolescents attending school contributed no more than 25 percent of all births and therefore the 30 percent of the adolescents who are not enrolled contributed no less than 75 percent of the births.² Nonetheless, as attention in the international community shifts from the achievement of universal primary enrollment to the expansion of secondary schooling for girls (UN Millennium Project 2005), there is an increasing need to address the reproductive health needs of young women who stay in school beyond the age of sexual maturation.

Using DHS data from sub-Saharan Africa, this paper will investigate the association between school dropout and the timing of sexual initiation, marriage and childbearing among young women aged 15-24. We will attempt to estimate how much of school dropout before completion of the full cycle of primary or secondary school can legitimately be attributed to early marriage and so-called "school girl pregnancy." We will also explore the extent to which the increased share of adolescent fertility or adolescent marriage associated with school leaving is explained by rising enrollment rates. Finally, we will investigate whether there is an increase in the likelihood of becoming pregnant among female students relative to the past.

Literature Review

Recent studies have investigated the degree to which pregnancy-related school dropout is a major cause of gender differences in educational attainment; the goal of this research is to determine whether reduction in unintended teen fertility is a useful policy lever to improve gender equity in school participation (Eloundou-Enyegue and Stokes 2004; Eloundou-Enyegue 2004). These studies draw on the experiences of women who have ever attended school and rely on self-reports on the reasons for school leaving. Eloundou-Enyegue (2004) concludes that in Cameroon pregnancies in secondary school make an important contribution to the gender gap in educational attainment. Based on a comparative analysis of data from DHS, Eloundou-Enyegue and Stokes (2004) conclude

² This is an underestimate of the difference as some of those no longer in school were in school at the time they were pregnant.

that the relationship between schoolgirl pregnancy and the gender gap in education attainment is very context specific and depends on overall levels of schooling and fertility among adolescents. Countries where schoolgirl pregnancy makes a significant contribution to the gender gap in educational attainment were Cameroon, the Central African Republic, Kenya, Mozambique, Uganda and Zambia.

These two studies suffer from several shortcomings. First, women who attended school 30 years ago and those who attended a year ago are combined in the same analysis despite the fact that schools, social norms and behaviors are likely to have changed over time in ways that would complicate the interpretation of observed statistical associations. Second, the event of pregnancy was assumed to be exogenous, an unlikely assumption for several reasons. Pregnancy could be an ex post justification for dropout rather than a cause. Some students who get pregnant opt for abortion in order to stay in school. Thus reported pregnancies are a subset of all pregnancies and likely represent the relatively more wanted pregnancies among all pregnancies that occur to students (Johnson-Hanks 2002; 2003). These reservations raise questions about the authors' conclusions and suggest the need for a more in-depth exploration of the changing patterns of school-leaving for reproductive events such as marriage and/or childbearing and a more nuanced exploration of the determinants of early school leaving.

Proposed Analysis

The proposed data analysis will have three parts. Each phase of the analysis is designed to take maximum advantage of particular features of the DHS data with each step of the analysis probing the topic in more depth. The first two parts, which are based on comparative data, will be more descriptive and the last part, which is based on richer and more recent data from a single country, Uganda, will provide some opportunity for multivariate analysis.

For the first part, which includes the 21 sub-Saharan African countries with surveys in the last 15 years that included a question on reason for dropping out, we will analyze the reasons given for school leaving by young women and calculate what proportion of 15-24 year olds who ever attended school and dropped out give marriage or pregnancy as an explanation. We will also determine whether those who report pregnancy or childbearing as a reason for dropping out have indeed married and given birth. We will identify the contexts in which early marriage and pregnancy are important factors in school dropout by classifying countries according to level of education and rates of early marriage and childbearing. For example, in countries in which educational attainment is still very low, it is unlikely that marriage is an important cause of school dropout even when teen marriage is common. In countries where premarital sex is rare, it is improbable that unintended pregnancy is an important reason for early withdrawal from school.

A preliminary examination of the reasons given for school dropout, among young women aged 15-19 resident in 21 sub Saharan countries who left school before completing either the primary or secondary cycle, indicates that in only four countries did more than 10% of dropouts mention marriage as the reason for leaving school and in only

three countries did more than 10% mention pregnancy as the primary cause of leaving (see Table 1). This table provides an upper bound estimate on the proportion of young women who dropped out of school because of marriage or childbirth and indicates that other factors relating to social and economic disadvantage are likely of greater importance in girls' school participation. While this is only a preliminary analysis, it does suggest that researchers' and policymakers' concern with marriage and pregnancy as major causes of adolescent girls' early withdrawal from school may be exaggerated.

The second part of the paper takes advantage of an additional question on age at school leaving that was asked in five countries. For the five—Burkina Faso, Cameroon, Cote D'Ivoire, Guinea and Togo—we will investigate the timing of school leaving relative to age at sexual initiation, marriage and childbearing. We will produce cause-specific life tables of school dropout among those who were enrolled in school at age 12. We will calculate the maximum number of girls who could have dropped out due to these reproductive events and how many actually report doing so. That is, we will use the age at school leaving response to help validate the answer to the question on reason for dropping out of school.

By comparing 20-24 year olds with 40-44 year olds we will also explore whether the prevalence of pregnancy-induced school dropout has increased over time. Given the greater likelihood of school enrollment during adolescence, we would expect a higher percentage of school-going girls to become pregnant among the younger cohort. However, the question arises whether an increase in school-girl pregnancy, if it has occurred, is due simply to the increase in exposure resulting from increased school attendance during the teenage years or whether it is due to an increase in the rate of pregnancy among school-going adolescents. We will also perform the analogous analysis for marriage; here, however, it is not clear what we expect as the prevalence of early marriage has declined in recent years as schooling for girls has expanded.

The last part of the paper will be devoted to an analysis of data from Uganda, where a special education survey was conducted in 2001 among those 6-18 years of age that can be linked to the 2000-2001 DHS. A detailed series of questions are included about the reasons for dropping out of school, including competing work and domestic responsibilities, insufficient resources to pay for school, quality of schooling, and distance and unsafe travel. Those who were over 13 were explicitly asked whether girls left school due to marriage, pregnancy and childbearing. With the Uganda linked data we will attempt to estimate models of school leaving among girls that take into account the potential endogeneity of reproductive events. That is, we will try to determine whether girls who left school "because" of marriage or pregnancy would likely have stayed in school in the absence of these events or whether those who marry early or become pregnant differ fundamentally from those who do not.

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Table 1.

Reasons for school leaving among 15–19-year-olds who have dropped out

Country	Percent of 15–19 year-olds who dropped out of school because of pregnancy	Percent of 15–19 year-olds who dropped out of school because of marriage
Benin	0.0	1.2
Burkina Faso	1.2	2.3
Cameroon	9.8	5.9
Central African Republic	7.0	2.8
Chad	3.9	18.7
Comoros	1.4	7.9
Côte d'Ivoire	1.9	0.2
Gabon	33.0	3.3
Guinea	5.9	7.7
Kenya	10.2	6.0
Madagascar	1.9	5.4
Mali	2.3	10.4
Mozambique	6.4	10.5
Niger	1.0	4.4
Nigeria	6.1	13.6
South Africa	33.2	3.3
Tanzania	4.2	6.3
Togo	7.2	1.1
Uganda	5.4	4.4
Zambia	8.9	2.6
Zimbabwe	3.6	3.1

Figure 1. Percent of Mothers Aged 15-19 Who Reported Dropout due to Pregnancy, by Level of School Attendance

