School Attendance and Adolescent Fertility in Central America

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Extended Abstract:

Despite substantial improvements in female educational attainment throughout Latin America, there has been little change in the age at first birth or in adolescent fertility rates in much of the region. The lack of change in the age at marriage or initiation of childbearing has been remarked upon by a variety of analysts (Rosero-Bixby, 1990; Martin and Juarez, 1994; Singh, 1998). In a comparative review of adolescent childbearing using DHS data Singh (1998) notes that, "The relatively small decreases, and even occasional small increases in adolescent childbearing in Latin America are unexpected, given the extent of social and structural change that has taken place in this region, and given the large decline in childbearing that has occurred among older women."

This is a proposal for a paper that will build upon some descriptive analyses for an existing comparative report. The report entitled Reproductive, Maternal and Child Health in Central America: Trends and Challenges Facing Women and Children, 2005, contains a chapter on sexual and contraceptive behavior of young adults and a chapter on educational status of children, based upon the same surveys to be used for this paper.

http://www.cdc.gov/reproductivehealth/Surveys/CentralAmreport.htm

This paper will examine interrelationships between school attendance and adolescent fertility, using recent survey datasets from Honduras (2001), Guatemala (2002) and El Salvador (2002/03). It will present an overview of trends in adolescent fertility, ages at first birth, first sexual intercourse and first union; highest grade level completed and age at school completion by considering successive cohorts of women. It will then present a series of multivariate models of school completion as a risk factor for starting fertility and of pregnancy as a risk factor for dropping out of school. The analysis will be stratified by wealth quintiles of the population, as it is expected that these relationships will vary by socioeconomic status.

According to the most recent surveys in each country, 49, 44 and 42 percent of women 20-24 had their first birth before age 20 in Honduras, Guatemala and El Salvador, respectively. The age-specific fertility rates for women 15-19 for the three countries were Honduras - 137, Guatemala - 114 and El Salvador - 104. Analysis of the relationship between education and fertility at these ages is complicated by the fact that large proportions of women in this age range are still in school: Honduras-33%, Guatemala - 40% and El Salvador – 51%.

There is also potential for reverse causality, by which a woman experiencing a birth can cause her to end or suspend her school attendance. It is necessary to take this into

account when estimating the effect of leaving school on the risk of first birth. The most straightforward way to do this is to estimate a proportional hazard regression model of age at first birth such that the woman's school attendance status (still in school/ended school attendance) is defined for each age at which the risk of first birth is being estimated. In the models to be estimated this will be done by defining a time-dependent covariate, ENDSCHOOL(t), which has a value of 1 if the age when the woman last attended school is less than the age for which the risk is being estimated and has a value of 0 if her last school attendance was older than that age (or if she is still attending school). The effect of being in school or not is estimated both as a proportional hazard (same effect at all ages) and as a non-proportional hazard (effect may vary by age). A similar approach is taken to estimate the effect of giving birth on the risk of dropping out of school.

All three of the datasets to be used contain the following variables for all women, 15-49: age at first birth, age at first sexual relation, age at first union, age at schooling completion, whether currently attending school, history of grade repetition and highest grade completed. For women 15-24, there is additional information on pregnancy intention for the first birth, whether the birth interrupted or ended the woman's school attendance, and exposure to sex education curriculum. In addition, there is information on school attendance, type of school, grade repetition and dropping out and reasons for dropping out for youth, ages 6-14, which will be used to provide the larger context of school attendance patterns in the three countries.

Martin, T. and F. Juarez. 1994. Women's Education and Fertility in Latin America: Exploring the Significance of Education for Women's Lives. *DHS Working Papers Number 10.* Calverton, MD: Macro International.

Singh, S. 1998. Adolescent Childbearing in Developing Countries: A Global Review. *Studies in Family Planning*, 29,4: 117-136.