

## Researcher

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# Fertility, Schooling, and Work Transitions of Young Women in Africa: Understanding Determinants and Outcomes

The proposed research is designed to improve our understanding of the determinants and effects of family, school, and work transitions experienced by young women in Madagascar and Senegal. The transition from adolescence to adulthood is a critical time in the lives of young women. The decisions that they and their families make regarding marriage, childbearing, schooling, and work will profoundly affect the rest of their lives. Through their effects on fertility; labor supply and productivity; and child health and schooling, these choices also can have major impact on economic growth and welfare. However, our knowledge of these benefits, and of how policy and other factors influence young women's early life course transitions, remains poor for Africa.

## Countries where the research will take place

Senegal and Madagascar

## How does the research describe the impact of population/reproductive health on poverty reduction and/or economic growth?

The proposed research is designed to improve our understanding of the determinants and impacts of the major life course transitions of young women in Africa involving marriage, family, schooling, and work. It seeks to make reliable and meaningful recommendations for policies that, by influencing the timing and nature of these transitions, have the potential to improve young women's future welfare and that of society as a whole.

## How will the research address a policy need, and what kind of policy lesson is expected?

Our research will contribute to a better understanding the impact of early childhood experiences, both in terms of household background and the quality and availability of schools, health services (including the availability of family planning and maternal and child health care) and other community characteristics on maternal age at first birth points, and the benefits of delayed marriage and childbearing on labor market outcomes and poverty. The research will measure how these decisions are affected by different policies. Both objectives are of clear relevance to policymakers in societies where fertility remains very high, schooling of girls is low, and child health outcomes are very poor. Reproductive health policy may have important implications for at least

three of the main Millennium Development Goals: to halve poverty by 2015; to achieve universal primary schooling by 2015; and to achieve gender equity in school at all levels by 2015.

## Methods used

We will employ regression-based and survival analysis approaches as necessary to deal with several issues. One of these is censoring, which applies to many of the outcomes of interest, such as duration of schooling, the age at marriage, sexual debut, and first birth. Given our focus on adolescents and young adults, many individuals obviously will not have finished their schooling, or have gotten married. One option to deal with censoring in descriptive analysis is to rely on simple binary measures. Continuous measures have several advantages over binary indicators. They provide a direct measure of the outcome (age at first pregnancy), use more sample information than simple binary indicators, and allow us to characterize the distribution of the outcome (the distribution of age at first birth) and how it has changed over time. To estimate these measures when there is censoring, survival analysis using hazard models or, alternatively, life table methods, are appropriate for outcomes such as age at first intercourse, age at marriage, and age at first birth. Tobit or ordered probit methods can be used for school attainment. In addition, introducing covariates into parametric survival or other regression models provides a straightforward way to test for differences over time in the relationship between the outcomes in question and key covariates such as wealth or location.

## Data used

Our research program will address limitations of standard microdata in several ways. First, we will use long-term panel data, essentially following a cohort from about ages 7 to 9 to ages 20 to 22. This will be novel in the African context. The starting point was the implementation of a national school-based survey (PASEC) that administered tests of written math and French to a cohort of students in first grade. In 2003 and 2004, we reinterviewed approximately one-half of the original PASEC cohort, collecting detailed information from their households and communities, and we retested the children. In addition, we collected the same information on a

randomly selected group of children of the same age who were not in the original cohort. One reason for doing so was that the original sample was school-based, and we wanted to include children who may not have ever enrolled. Among the objectives of our 2003 and 2004 surveys was to learn how early test performance affects later performance and school attainment and how schooling has affected cognitive skills by adolescence. In 2010, we will collect information on activities and events since the 2003 to 2004 survey related to schooling; migration; marriage; family formation; contraceptive knowledge and use; work; and time use.