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Fertility, Intergenerational Transfers, and Economic Development in South Africa

This project brings together economists and demographers from the University of Cape Town and the University of Michigan to analyze links between fertility, intergenerational transfers, and economic development in South Africa. The project builds on a 10-year history of collaborative research between UM and UCT. The project will focus on demographic behavior and economic outcomes at the household level in South Africa. A key tool will be the Cape Area Panel Study (CAPS), a longitudinal survey of young people and their families in Cape Town, which provides wide-ranging detail about young people's lives. Another important data resource will be the new National Income Dynamics Study (NIDS).

A major focus of the project will be on the economic consequences of South Africa's high level of teen fertility. Most of this teen fertility is nonmarital, and teen mothers are much less likely to finish high school, with potentially important consequences for their own employment opportunities and for the human capital of their children. The project will take advantage of a number of strategies using CAPS, NIDS, and other South African data sets for identifying the potential impact of reducing teen fertility on women's human capital and earnings. These include variation in age at menarche, access to family planning and health services, and variation in sex ratios.

Another important focus will be on South Africa's complex pattern of intergenerational support. South Africa's patterns of household formation are such that many young South Africans reside with grandparents. In addition, South Africa's large state old-age pension gives some elderly the financial resources to support their younger family whether or not they are coresident. Finally, South Africa has recently implemented a Child Support Grant that brings resources to the caregiver of children. Research has shown that these intergenerational support systems and public transfers play an important role in the human capital accumulation and labor force activity of young people. The research will analyze the extent to which these support systems mediate the impacts of teen childbearing.

Country where the research will take place

South Africa

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

This project takes a microeconomic view of the connections between reproductive health and poverty and growth

through its interrogation of the impact of teenage fertility on schooling outcomes and consequent labor market outcomes. The strength of the approach is that it will pay close attention to the ways in which household composition, government transfers, and extended family networks interact with adolescent fertility in ameliorating or worsening the initial impact of a teen pregnancy. We will use a variety of methodological strategies and data sets to analyze the impact of adolescent fertility on human capital and earnings, accounting for the potential mitigating influence of intergenerational support networks and South Africa's unique system of government transfers. The broad goal of the research program we propose is to understand the links between fertility, intergenerational transfers, and economic development in South Africa.

Although the focus of our research is at the level of families and households, we have a strong interest in how behavior at the microlevel interacts with the larger macroeconomic environment. The microoutcomes we will focus on, such as individual human capital investments and earnings, are the foundation of aggregate economic growth. We believe it is impossible to understand the macrolevel links between population dynamics and economic development without understanding the microfoundations of those links.

Our research starts by focusing on the link between teen pregnancy and education. A key link between these educational impacts and longer-run poverty and inequality outcomes is the role of education in determining success in the labor market. There is a wealth of literature on the South African labor market showing that there are high rates of return to education both in terms of obtaining employment and in terms of the earnings for those who have employment.

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

The proposed research will inform policy in several areas. The issue of adolescent fertility itself raises a number of important policy questions. Two results based on preliminary analysis of the CAPS data are particularly striking. First, we see an increase in both sexual activity and pregnancy in the teenage years between 2002 and 2005. Second, we see that many teen mothers report that their first pregnancy came sooner than they wanted. Does this mean that school-age girls do not have adequate access to reproductive health services? Alternatively, do they have access to contraception but do not have sufficient bargaining power with their sexual partners? Do poverty and economic shocks play a role? Then, the research program is relevant to a number of important policy questions related to government programs. The most important question is whether the old-age pension and the Child Support Grant lead to improved human capital outcomes for children and adolescents, and in particular whether they mitigate what would otherwise be negative consequences of adolescent fertility on teen mothers and their children.

Methods used

The strategy used to estimate the causal impact of teen-childbearing on various outcomes is an instrumental variables method. Two types of instruments will be used:

1. Variation in a household's access to health clinics and family planning services.
2. Variation in local sex ratios and in age at menarche.

Data used

The project uses the Cape Area Panel Study (CAPS), a longitudinal survey of young people and their families in Cape Town. CAPS, a collaborative project of UM and UCT, began following 4,800 14-to-22-year-olds in 2002, with the fifth wave completed in 2009. CAPS provides wide-ranging detail about young people's lives, including sexual activity, childbearing, schooling, employment, earnings, and intergenerational transfers. Another important data resource will be the new National Income Dynamics Study (NIDS), a project run by the University of Cape Town on behalf of the South African Presidency. The first wave of NIDS was collected in 2008 and the second wave was collected in 2010.

Research results

Estimates of the impact of childbearing on the educational and health outcomes of the teen mothers and their children were summarized in a series of papers. A number of methodological approaches were engaged to account for the differences between teen mothers and other women. We find that there are significant negative consequences of teen childbearing on the mothers' human capital accumulation and on the health of their children. Controlling for the characteristics of teen mothers reduces the consequence of teen childbearing but never completely eliminates the effect. A large percentage of teen mothers report that they had their first birth earlier than they would have wanted. The results suggest that better provision of family planning services for adolescent girls could reduce teen pregnancies and lead to an increase in the educational attainment of young women and improvement in the health of their children.