Pathways into single-motherhood and their implications for children's health and education in Nicaragua

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Introduction

The intergenerational transmission of poverty occurs when parents are unable or unwilling to invest in their children's education and health. This paper focuses on the role that the absence of biological fathers plays in the persistence of poverty in Nicaragua. Nicaragua provides an important setting for examining the impacts of growing up in a single-mother family on children's education and health. It is the second-poorest country in Latin America and also has a relatively high percentage of single-mother families.

Previous work in Nicaragua and other Latin American countries suggests that living in a single-mother family is a risk factor for low educational attainment and poor health for children (Arends-Kuenning and Duryea 2006). However, few studies in Latin America have explored the links between single motherhood and children's health and education. No studies have looked into whether the pathways by which mothers enter into a state of single motherhood matter for children.

We use the 2006-07 Nicaraguan Demographic and Health Survey (ENDESA) to construct family histories for children whose mothers were interviewed. Using recall data about women's marital histories, we categorize children's family histories. For example, in situations where the mother did not report being in a union at the time of a child's birth, and the child's father code indicated that the child did not live with his biological father at the time of the survey, we classify the child as never living with his biological father. We then examine various educational and health outcomes and see whether they are related to the child's history of living with his biological father. The regressions include controls for mother's education.

Background

Educational levels and indicators of health in Nicaragua lag behind those of other Latin American countries. The average years of schooling completed by 18 year olds was 5.8 years for males and 7.0 for females in 2006-07 according to the authors' calculations from the Nicaraguan Demographic and Health Survey (ENDESA). Infant mortality rates were 27 per thousand in 2008 (UNDP 2011), and 17 percent of children under age 5 in 2006/07 were stunted (INIDE 2008).

It is a common experience for Nicaraguan children to grow up in families without their biological fathers. According to the 2006-07 ENDESA, of children aged 0 to 14 who lived with their mothers, only 76 percent lived with their biological fathers. Of the remaining 24 percent, 16 percent lived with their biological father at the time of their birth, but the father subsequently left. Seven percent never lived with their biological

father. One percent lived in households where the father had migrated, but the mother reported that they were still together.

In Nicaragua, a woman might have a sexual relationship with a man who is married to another woman and become pregnant. Abortion is illegal and not common, so most often, the woman has the child, and the biological father does not live with her. The biological father may or may not provide support. Children who are the result of these relationships might have different outcomes than children who are the result of informal marriages that later dissolved. Of course, there might be a selection issue, whereby women who enter relationships with married men have different characteristics than women who are in temporary, informal marriages. We will discuss the potential biases that arise.

Research questions

The research questions we will answer relate to children's education and health outcomes. They include the following:

1. To what extent does the pathway through which the mother entered single motherhood affect the child's health and education? Does it matter whether the mother was with the father at the time of the birth?

2. For children whose biological fathers lived with them at the time of their birth, and then the fathers subsequently left—does it matter at what age the biological father left the household?

3. Do children who live with stepfathers fare better or worse than children who do not live with their biological father or a stepfather?

4. To what extent does the presence of one or more grandparents overcome the disadvantages of growing up in a single-mother household?

With the ENDESA data, there are many outcomes that can be examined. For schooling, the outcome measures include school attainment, school attendance, school drop out, school starting age, and grade-for-age. Therefore, progress through school can be examined in addition to the standard outcomes of attendance, drop out, and attainment.

The variables that measure health include anthropometric data and data about recent occurrences of diarrhea and other illnesses. The data include information about children's birth weights, which can be used to compare children whose fathers were living with their mother at the time of their birth and those whose fathers were not. To get at selection issues, we can examine whether children whose biological fathers subsequently left had lower birth rates than those whose biological fathers are still in the household.

Data

Women aged 15 to 49 were included in the ENDESA sample, and they were asked about their marital history. We were able to compare children's birth dates with the dates that women reported that their marriages began and ended. Women reported both formal and informal marriages, and in the Nicaraguan context, when men and women live together, the parties would consider themselves to be in a marriage. Therefore, each child could be classified as living with the biological father, living with a stepfather, or not living with a biological or stepfather. Among those children who did not live with their biological father, we could classify whether the mother was married to the father at the time of the child's birth and, if so, at what age the father left the family. Each child has a father code, increasing accuracy. This code is used to classify children as having a stepfather and to indicate children whose fathers were not present at birth, but who moved into the household after the birth.

The sample is large. For children aged 6 to 14, there are 12,000 observations.

Method

The methods are standard econometric techniques. For outcomes that are binary, such as school attendance, we use probit models. For outcomes such as Z-scores for height-for-age, we use ordinary least squares.

The regressions include controls for mother's education and the region where the family lives. Mothers are assumed to have completed their education before starting childbearing and to stay in the same region that they lived in before starting childbearing. We do not include many controls for the current situation of the household, because they would have been affected by the woman's marital status and history.

An exception to the strategy of including only background variables that were fixed at the time of the first childbirth is the presence of the children's grandparents in the household. We will include variables indicating the presence of a grandmother and grandfather. These variables are endogenous, because single mothers might choose to live with their parents as a strategy to enhance their children's well being. We will be careful to interpret the results as descriptive.

Preliminary Findings

The regression results indicate that children whose biological father never lived in the household are less likely to be enrolled in school than children who live with their biological father. The result is robust to controlling for mother's education. Children whose biological fathers lived with them at the time of their birth, but subsequently left, are no worse off than children who live with their biological fathers. Therefore, single-mother families are somehow able to buffer the lack of the biological father in the

household. For children aged 12 to 14, it did not seem to matter at what age the father left the household.

References

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