

The impact of Household Structure on Educational Attainment in a Context of Rapid School Expansion

Marta Mier y Teran, Universidad Nacional Autónoma de México
Carla Pederzini Villarreal, Universidad Iberoamericana

Abstract

Mexico has recently experienced a growing presence of female-headed households which coincides with the expansion of secondary and post-secondary education. We use the Population Censuses of 1990 and 2005 to analyze the role of household structure on the evolution of educational inequality of school age population in three age groups related to the educational levels in Mexico. We describe the composition of young population and measure school attainment according to household structure, socioeconomic status of the household (proxied by household educational climate) and size of locality of residence. In order to measure the effect of household structure on education, we estimate two regression models using school attendance and years of schooling as dependent variables. We interact explanatory variables with a dummy variable for 2005 observations in order to measure change on the impact of each variable over the period. We use instrumental variables to correct endogeneity

Background

Over the last few decades Mexico has experienced dramatic demographic changes, which include a reduction in the fertility rate, changes in internal and international migration flows and patterns and growing divorce and separation rates. Mexican households have also experienced significant changes, especially the increase in female headed and single headed households. At the same time massive increases in school enrollment have been experienced in a context of deep social segmentation. Inequalities in school access have been broadened by the selective expansion of the educational system that benefited urban areas.

The literature on the effects of sole parenthood on child well-being in developed countries is extensive and growing in sophistication. Living in a single parent family is generally associated with negative outcomes. (Painter and Levine, 1999; Pong, Dronkers and Hampden-Thompson, 2003; Ghysels and Van Vlasselaer, 2008). Socioeconomic conditions can account for differences between children in two-parent families and in mother-headed families (Sørensen, 2005). Some recent studies find less conclusive evidence on the effects of family structure on schooling outcomes (Francesconi, Jenkins and Siedler, 2005). The better the quality of the study, the smaller is the size of the effect found (Chapple, (2009)).

Evidence from Latin America suggests that even though poor female-headed households prefer to invest scarce resources in children, which translates into increased child welfare relative to income, fathers' absence may transmit social as well as economic disadvantages to the next generation, either directly or indirectly by affecting the caretaking behavior of mothers and other childrearing agents. (Buvinic and Gupta,

1997). The impact of socioeconomic conditions as a determinant of educational opportunities is larger than that of family structure in lower income countries. Also, since most single parent households are headed by women, educational opportunities of the young population in this type of households are linked to educational opportunities for women.

Mexico has recently experienced a growing presence of female-headed households which coincides in time with the expansion of secondary and post-secondary education. This makes the Mexican case of particular interest.

Objective

The main objective of the paper is to analyze the role of household structure on the evolution of educational inequality among young people in Mexico. We also describe the composition of school age population and measure school attainment according to household structure, educational climate in the household and size of locality of residence,

Methodology

The data sources are the Population Censuses of 1990 and 2005 (Conteo). We divide the school age population in three groups according to the educational level they should be attending (6-11 (primaria), 12-14 (secundaria) and 15-17 (preparatoria)).

As a proxy of the socioeconomic status of the household we use the educational climate, measured by the average school attainment of all adult household members. We assume that this is a good approach because well being is increasingly linked to educational trajectories. Also, educational attainment in adults is a structural variable determined by social background and not by the immediate context (Loayza and Fukazawa, 2005; Sourrouille, 2009).

We analyze the household structure according to the sex of the household head and to whether it is single headed or not.

We create a panel database with information from both censuses. We use two different variables to proxy school attainment: school attendance and years of schooling. We estimate a regression model for each of the dependent variables and for each age group. We include household structure, educational climate and size of locality of residence among the explanatory variables. In order to find out the change over the period on the effect of the explanatory variables, we interact each variable with a dummy variable which is equal to 1 when the household observation belongs to 2005. We will use instrumental variables in order to correct endogeneity which arises from the fact that education and household structure may be determined by the same variables.

Preliminary Findings

Growth in school age population is slow from 1990 to 2005. Linked to low fertility rates in the decade of the nineties, primary school population shows the smallest growth (see table 1)

Table 1
School Age Population in 1990 and 2005

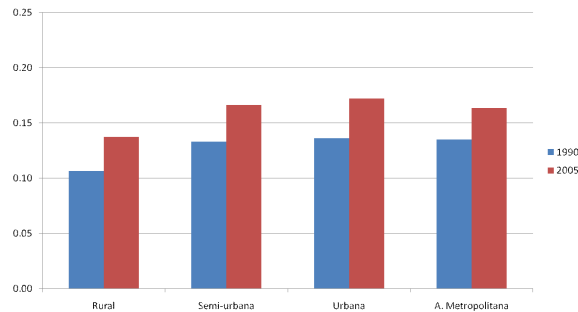
Ages:	Population		Average Annual Growth Rate (%)
	1990	2005	1990-2005
6 a 11	12 532 407	12 720 011	0.11
12 a 14	6 302 971	6 597 968	0.33
15 a 17	5 993 928	6 237 512	0.28
6 a 17	24 829 306	25 555 491	0.21

Source: Mexican Population Census 1990 and 2005

The vast majority of school age population resides in dual-headed households with male headship. However, during the period a reduction in this type of households takes place while single and female headed household gain importance. In 2005 one school age person in every 7 lives in a single female headed household.

Due to the theoretical and numerical relevance of dual-headed households with male headship and single female headed households, we will limit our analysis to these two household types.

**School Age Population in Female-Headed Households
by Size of locality of residence**



Female headed households have grown in all types of localities.

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