Female empowerment and school achievement. A closer look to women's bargaining power, household expenditure and educational performance

In the extensive literature on women's bargaining power it has been assumed that higher female power leads to greater participation on the household decision making process (Becker, 1996) When women's bargaining power increases, family welfare improves due to the fact that women know better what each member of the family really needs. So, in households where the wife has a higher bargaining power, the expenditure share of items that are positively correlated with household's welfare, such as healthy food and education, must be higher than in households where women have less power. If the husband has a higher power, the household will spend more on "men's" goods such as alcohol and tobacco.

It has been shown that children of women with higher levels of schooling and income tend to receive more education (Buchmann (2000), Lam and Schoeni (1991)). Many authors have interpreted these findings as a result of higher levels of education and income, which give women more power inside the household. The "unitary household model" states that the household level share of a certain good can be expressed as the average of the expenditure share on that good preferred by each family member weighted by his bargaining power. Following this model, if women's preferences for education expenditure are higher than men's and she has a high bargaining power, then the household's expenditure share on education should also be high. Hence, these authors conclude that women's bargaining power, measured by income and schooling is positively correlated with children's education. As Kanbur and Haddad (1994) remark, the amount of money injected by the government into households can have very different implications on child labor, education and health, having higher child welfare results the household's where the woman has a higher bargaining power.

Recent literature about bargaining power inside the household not only includes women's education and income share as power measures, but also takes into account family dynamics, making it more difficult to measure women's empowerment and its relationship with children's schooling outcomes. Power needs to be measured

not only by economic indicators, but also taking into account other features such as the individual's perception of control over economic resources inside the household, due to its multidimensional characteristic (Beegle, Frankenberg and Thomas, 2001). Also, there is no evidence that higher shares of expenditure on education actually translate into higher levels of education.

This paper is aimed at two main objectives. The first one is to test the relationship between women's bargaining power and children's schooling not only by including women's income and schooling factors but also by bringing in the decisions made inside the household in order to have a complete measure of women's power. The second objective is to corroborate the hypothesis that higher expenditures on education actually translate into better schooling performance.

We will use The Mexican Family Life Survey (MxFLS), a multi-thematic and longitudinal database which collects, with a single scientific tool, a wide range of information on socioeconomic indicators, demographics and health indicators on the Mexican population. MxFLS is the first Mexican survey with national representation departing from a longitudinal design. It tracks the Mexican population regardless of migration decisions with the objective of studying the dynamics of economy, demographics, epidemiology, and population migration throughout this panel study. The base-line sampling, conducted during 2002, was designed by the National Institute of Geography Statistics and Information (*INEGI* acronym in Spanish). This base-line is a probabilistic, stratified, multi-staged, and independent sample at every phase of the study. The approximate sampling size is 8,440 households with approximately 35,000 individual interviews in 150 communities throughout the Mexican Republic. The second wave of field work (MxFLS-2) was conducted during 2005-2006 with a 90 per cent re-contacting rate at household levels (Rubalcava and Teruel (2008)).

We will take three steps in order to achieve our goal:

1. We use the answers of the head's wife about decisions on children education expenditures. We create a variable that measures wife's perception of her participation on children's education decision making, which takes a different value

for each of her answers. We analyze the relationship between this variable and the expenditure share on education.

2. We investigate whether the decisions on children's education expenditures reflect women empowerment by calculating its correlation with other decisions. If there is a positive correlation with decisions which imply high women power, such as substantial expenditures, or expenditures on husband's clothes, we can conclude that decisions on education expenditures can be a good proxy for female empowerment. We go further and create an empowerment index by calculating the share of household decisions taken by women on their own, and analyze the relationship between this index and the education expenditures decisions. If this correlation turns out to be positive, our hypothesis would be reinforced.

3. Finally we consider the idea that a higher expenditure on education translates into higher children education levels. We use data on child's educational performance (children's years of schooling, school assistance, hours per week of study outside the school and expectations about studying) in order to analyze the alleged positive significant relationship between education's expenditure share and educational outcomes. Mxfls will allow us to observe the effect of women's empowerment, defined in the first wave, on children's educational performance on the first and second wave, covering a period of three years. We will be able to compare all educational variables for children in high and low female empowerment households

Our work examines female involvement in the household decision making process and its relationship with children's schooling outcomes, providing a deeper analysis of women's bargaining power than the one in previous studies.

Preliminary findings

Our preliminary analysis of Mxfls data shows that in 63% percent of the households decisions on educational expenditures are taken by the wife in conjunction with other family members. In 25% of the households the wife is not involved in the decision and in almost 12% the wife alone takes the expenditure decisions.

We also found thar educational expenditure is higher in those households where the wife is either involved or completely in charge of children's educational decisions. (see graph below)

Percentage share of education related expenses on household expenditure according to wife´s involvement in decision by income quintile
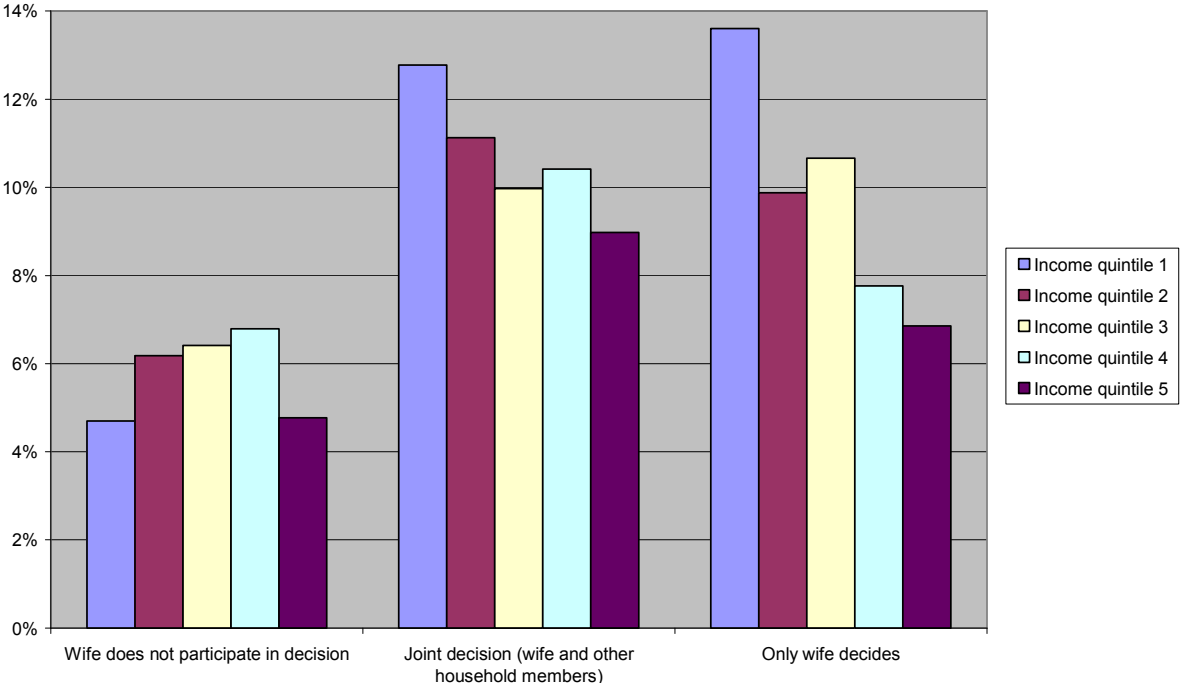
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