

## **Health, Disabilities and Family Factors Affecting Child Performance at School in Mexico**

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### **Abstract**

This article discusses the factors related to one and two years of backwardness at school among children from 7 to 12 years old, considering child, family, social connectedness and context characteristics. The National Survey of Income and Expenditure 2012 was explored to estimate a logistic model with three categories of the dependent variable – zero, one or two years of delay in primary school. Having an uneducated woman living in the household is the main factor in doubling the child's probability of having one year of backwardness and almost three times the probability of having two years of backwardness, compared to living with more educated women. And not having access to a fellowship as well increases by almost two and more than three times the probability to have backwardness. Attendance at a public school also is the most important factor to decrease backwardness in general. Having disability and another disabled member of the household, co-residing with two other children and not co-residing with an adolescent 13 to 15, as well as nutrition insecurity, low income and overcrowding in the household can delay education in one year; and being a son/daughter of the head of the household prevent two years of backwardness.

**KEYWORDS:** backwardness, education, health, disabilities, family

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### **Introduction**

Education is recognized as a crucial element of economic and social development, as well as being a major aspiration for the social mobility of family members and differing generations, in order to increase welfare and quality of life. Inequalities exist in accessing and performing education and the factors associated with the difficulties and advantages of achieving better results for all families and individuals are discussed at large in different countries and are used to orient policies to improve education around the world.

Human Capital theory and the theory of allocation of time are centered on the demand for durable goods in the market, assuming that individuals are rational in their decisions and behaviors, in order to maximize their utility functions, taking into account the availability of resources to be allocated to other competitive goods, such as having children, who are also considered as durable goods, in competition with the purchase of other goods. Parents would estimate the quantity of resources and the number of children they want to have, considering how much money and time they would be able to invest in child education and care (the mother provides child education and care) and how much to invest in other goods (fathers are the sole providers of resources from work and from

markets). Rational calculations would allow couples to arbitrate on the conflict that may exist between family resources and aspirations. And education is the greatest resource and aspiration, since it is the main factor of human capital, enabling the man to get work and go about the market to provide income and economic resources for the family, whilst the woman is exclusively devoted to domestic chores and childcare (Becker, 1975; Easterlin, 1976).

Household production theory combines the theories of Human Capital and allocation of time, but considers education more as “consumption”, rather than an “investment”, since the family is a consuming unit, as well as a producing unit. Therefore, families combine time and resource inputs to produce different types of commodities, including “quality children”. Education is perceived as an intermediate good or an input into the production of other goods and services, since education provides the skills and competencies that underpin economic production. Investments vary between families. Childrens’ ability and willingness to learn also varies (Becker, 1993; Ermisch and Francesoni, 2000; Haveman, 1993).

According to these perspectives, education is measured as child performance at school, depending mainly on family resources and status, such as parents’ time, income, education and work, or family capacities to invest in and achieve a high level of education and, therefore, greater human capital, better opportunities and quality of life for the next generation of descendants. In contrast, mothers’ work is related to a lower educational attainment of children, due to, if mothers use part of their time to work, their dedicating less time to support child education. On the other hand, mothers with a high level of education would promote the value of a high education in their children (Ermisch and Francesoni, 2000; Haveman, 1993).

Summarizing, the couple would work together to maximize their utility and satisfaction and also their children’s utility, a commodity that competes with other alternative assets, which are also useful for the family. Therefore, female education is seen as an essential and indispensable resource to achieve these goals. Educated mothers would have positive attitudes on education, adopting tools and practices in order to get and use adequately family and rational resources in achieving their calculations and aspirations to improve their childrens’ human capital.

The family stability approach considers family structure, particularly the parents’ presence, as the most relevant determinant of child education (Bogges, 1998), as opposed to the child independency approach, which values family resources more than stability. A female heading household or a stepfather-mother family structure would decrease childrens’ performance at school, although this effect would change considering the socioeconomic condition of the household and the age of the child when experiencing these family events. The presence of both mother and father would favor child performance at school not just due to family stability, but also or to how and when parents exchange their abilities and knowledge with their children. Moreover, not only the parents, but also other members of the household, particularly women, such as stepmothers, older sisters, grandmothers and other relatives can support infant education and care. And the child could assume a different position in the household structure, such as child, grandchild or even not being a relative of the head, co-residing and receiving support from different generations. In this sense, the education level, the time dedicated

to work and childcare could be provided by any woman living in the household, exchanging support for children and being involved in their education, care and performance at school. Finally, the number of children of different ages could result in more or less time dedicated by women in supporting child education, since younger children or even adolescents could require more time and resources to be invested than older ones.

A known limitation of Human Capital, Household Production and Family Stability approaches is the narrow focus on family or parents' conditions in the household, without taking into account other external factors. Moreover, these approaches refer to patriarchal societies and its correspondent values and practices, which are changing in time, while feminist leaders interfere in laws and policies, deconstructing gender inequalities, adopting and promoting female empowerment speeches and practices and changes in laws and policies.

Sociologists have overcome the limits of household analysis of educational performance, including context and institutional issues in theories and empirical approaches. Race-ethnicity is discussed by sociologists and economists in its real role in educational performance, related also to poverty and other socioeconomic and background factors (de Sherf, 2002), being associated to the minority position or to a poor and violent environment. Sociologists put emphasis also on the quality of the school and on the relative quality of education provided, which differs according to socioeconomic status, varying between public and private schools.

North (1990) considers institutions as social rules that shape social interactions, behaviors, and exchanges. Individuals operate these rules to achieve their goals, to maximize wealth, income or other objectives, to adjust rules and promote new ones. As social and racial groups vary in knowledge and abilities, there are also differences when they design and choose tactics for implementing the rules at school, for example. From this perspective, public and private schools would adopt different rules and children would value and behave differently at each kind of school, according to their family and individual set of conditions, expectancies and aspirations.

Amartya Sen (2000) overcomes rational perspectives with a broader approach, combining concepts of justice, equality and agency based on freedom, and education is considered one of a set of capabilities which include health and other aspects of quality of life, combining resources, gender and race inequalities. From this perspective, education is a crucial dimension to build capabilities and to achieve development and freedom. Capabilities are affected by employment, health status and disabilities, education, security, and social-connectedness, and these dimensions depend on the extent of the opportunities set and freedom that individuals experience to choose the life they value.

This approach maintains that "education matters also for quality of life, independently of its effects on people's earnings and productivity, since better-educated people have better social and health status, lower unemployment, more social connections, and greater engagement in civic and political life. Therefore, education brings monetary and non-monetary returns that benefit both the person investing in education, families and the community in which they live" (Stiglitz et al, 2012).

For example, health problems of children or of other family members have a negative effect on educational performance. In Indonesia, Berhman (1996) found that child, health and nutrition are strongly associated with educational performance, and that health may have considerable effects on postschooling productivity. In Mexico, Solís (2012) found that the mother's depression is one of the main factors explaining backwardness in Mexico.

From feminists, Stiglitz, Sen and Fitoussi's perspective, mother's education and employment are not only a tool for economic development, but an indicator of women's agency and empowerment, meaning at the same time the goals, the tools and the results in achieving justice, equality, human and political development as freedom for both parents and children, for both boys and girls, reproducing these advantages among generations and in society, impacting upon not only economic development and productivity but also upon justice, citizenship and freedom.

To adopt this broader perspective, "several available educational indicators can be used, since they cover a broad range of fields. Some refer to inputs (e.g. school enrolment, educational expenditures and school resources) and others refer to throughputs and outputs (e.g. graduation rates, number of completed years of schooling, standardized test measures of people's achievements in terms of literacy and numeracy or other cognitive skills)." (Stiglitz *et al.*, 2012). Other issues affecting capacities are also adopted such as health, disabilities and availability of support from different members of the households and institutions including fellowships, international remittances, social security rights and other effects and inequalities present in the context in which children and their families live.

These factors can affect education performance in the early ages of schooling and can potentially interrupt future children trajectories. In some cases it could occur in different ways; for example, if backwardness were intermittent, retarding in more than one year the ideal age of attaining the adequate level, and combining child, family and context disadvantages with others reinforced by backwardness itself, such as a low self-esteem and lack of confidence to overcome inequalities.

## Materials and methods

The 2010 National Survey of Domestic Income and Expenditures has 169,550 cases, and among them 13,145 cases are children from 7 to 12 years old, from which 740 were not analyzed due to there being a high number of missing cases for the variables analyzed. The final number of valid cases was 12,405 children of the age group of interest, meaning the subject age at which to study the primary level considering backwardness. Children's education backwardness was estimated by subtracting the expected age of the grade they were attending at school from their actual age. Children who were one or more additional years old, compared to the actual age they were expected to be when attending school were considered to be backward. The multinomial logistic regression model adopted three categories for the dependent variable: children with no backwardness were assumed as the reference category (62.7%), compared to children with one year of backwardness (19.2%) and to children with two years of backwardness (18.1%).

The regression model measures how the children' educational attainment was affected by certain child, family and socioeconomic conditions present during their childhood. Independent variables were classified and introduced to the model according to the level of analysis, such as children's family, institutional and context characteristics - considering Stiglitz, Sen and Fitoussi's approach, the availability of information in the data base and the goodness-of-fit statistics based on chi-square to estimate the probability of educational backwardness.

Child variables are sex (boy or girl), ethnicity (indigenous or non indigenous), health problems (yes or no), and disability (yes or no). The age of the child was taken into account as a control variable and child employment could not be included due to the very small number of cases, negatively affecting the global fitness of the model.

Family composition variables are the presence of the mother at home (yes or no), the position of the child in the household structure (child, step-child or other) the number of children between 0 and 6 years old in the household (1 child to 4 or more children), the number of children between 6 and 12 years old and the number of children between 13 and 15 years old in the household;

Some children do not have the presence of the mother or father in the household. Therefore, to prove the relevance of family stability, the presence of mother and father was prioritized in the model, in contrast to the information on mother and father's level of education, because in the absence of these family members, these cases would be incomplete. Instead of the mother's education, the variable estimated was the mean level of education of adult women between 20 and 59 years old living in the household, considering that even in the presence of the mother, these women such as grandmother or stepmother could also share support in child education. The same criteria were used to estimate the time dedicated by women to work and to childcare.

Family capabilities are represented by the mean level of education of women between 20 to 59 years old (primary, secondary or higher), mean time dedicated by women to work (0 to 20 or 21 to 40 plus hours per week) and mean time dedicated by women to childcare (0 to 20 or 21 to 40 plus hours per week) at least one member with health problems (yes or no); Another capability variable included is having at least one disabled member in the household, not being the child of interest (yes or no).

The set of opportunities and social connectedness given by institutions and the context are the hunger index (at least 0, 1 or 2 instances of nutrition insecurity), income per capita by quartile, international networks (remittances or international pensions), social policies network, particularly Oportunidades program (yes or no) and fellowship to study (yes or no). Social security networks are represented by four categories (No affiliation, Popular Security, IMSS, ISSSTE or other). Access to technologies indicates the number of technological appliances available in the household: computer, Internet, videogame, television and telephone (0 to 3, 4 or 5). Space availability was measured through an Overcrowding Index (1 to 5 or more people per room) - the official Mexican marginalization index adopts the categories high, middle, low and lowest. Area of residence classifies municipalities according to the number of inhabitants (100,000 plus, 10,000 to 99,999, 2,499 to 9,999 and less than 500 inhabitants), and the kind of schools - public or private.

Each group of variables was progressively introduced into a logistic model observing the goodness-of-fit statistics according to chi-square to estimate the probability of education backwardness among children 7 to 12 years old in Mexico, and the weight of each factor in relation to difficulties in school performance in case of experience one or two years of delay at school.

## Results

Of 12,826 children aged 7 to 12 years old studied, 62.7 % did not experienced backwardness, while 19.2 and 18.1 % respectively had one or two years of backwardness.

Analyzing independent variables, descriptive results show that 48.4% of children were girls, around 16 % of them were aged between 7 and 12 years old, 9.3% were indigenous, 18.0% had health problems, 1.6% had at least one disability. The age of the child analyzed is equally distributed, with 16% of them in each individual age.

The position of the child 7-12 years old in the household varies, although 83.2 % were sons and daughters of the head of the family, 2.4 % of them were not relatives of the head of the family and 15.0 % were grandchildren of the head of the family. 4.0 % of the children did not have their mother living in the household; 15.3 % lived in a household headed by a woman; 33.3 % lived with another child who was 0 to 6 years old and 16.7 % lived with two small children of this group of age; 47.0 % lived with another child between 7 and 12 year old and 14.4 % lived with two children of the same group. 28.2 % of them lived with adolescents between 13 to 15 years old and 5.2 % co-resided with adolescents of these ages, the other 66.5% does not co-reside with adolescents.

Women's capabilities in the household can contribute to children development. However, in Mexican households, there are mostly women in the lower levels of education: 5.9% of them have not any education, 19.3% have not completed primary studies (less than six years of education), 42.0 % have completed only primary studies, 9.9 % have not completed secondary studies (less than 9 years of education), 5.9 % have completed secondary studies and only 16.9 % have a higher level than secondary studies.

Indicators of women's empowerment and time available to childcare are measured through the number of hours per week that adult women aged between 20 and 59 years are working: 60.6 per cent of them work from 0 to 19 hours per week, 14.0 % work between 20 and 39 hours per week and 25.4 % work 40 or more hours per week). The time that adult women dedicate to childcare varies from 0 to 19 hours per week in 53.7 per cent of the cases, 20 to 29 hours per week in 16.8 % of the cases, 30 to 39 hours per week in 17.6 % of the cases and 40 or more hours per week are allotted by 11.9 % of adult women to childcare in the household.

The capabilities of other members of the households can contribute to child development, and a lack of capabilities can also compete with resources and time dedicated to child education and care. For example, 50.8 % of these children live with a family member with health problems and 10.7 % of them live with a disabled family member, competing for time and resources dedicated to child education.

Available domestic space to study is an advantage for child development, and 25.5 % of them have one person per room in the household, 22.2 % have two persons per

room, 17.8 % three persons per room, 17.8 % four persons per room and 12.5 % have five or more persons per room in the household, indicating that at least a half of them live in overcrowded households.

Social connectedness is represented by institutional and environmental support, such as domestic space and technology available to be shared by the household members. Children's supports include 25.0% of them accessing fellowship; 34.9 % of them were receiving Oportunidades benefit to reduce poverty; 17.6 % of them co-reside with another person receiving fellowship; 14.1 % have access to at least three technological appliances, 46.6 % to four technological appliances and 39.3 % have five or more technological appliances available.

Moreover, 6.3 % of the children attended a private school; 13.3 % of children households did not have access to a health or pension social security system, 29.5 per cent had Popular Social Security, 37.5 % had IMSS, 21.5% had ISSSTE or another affiliation; 5.8% had international networks through migration or foreign pension.

Regarding nutrition conditions, 38.6 % of the children had no condition of nutrition insecurity, but 24.6 % had at least one condition and 36.9 % had two or more conditions of lack of nutritional security.

Regarding the context variables, 5.0 % of the children lived in a municipality with the highest marginalization index, 13.4 % in high, 12 % in middle, 14.9 % in low and 54.8 % in the lowest. And 39.7% of them lived in municipalities with more than 100,000 inhabitants, 1.6 % lived in municipalities of between 15,000 and less than 100,000, 12.7 % in municipalities between 2,500 and less than 15,000, and 30.1 % in rural municipalities with less than 2,500 people.

The logistic model applied had three categories of backwardness at school as the dependent variable: children 7-12 years old with zero years of backwardness, children with one year and children with two years of backwardness in the school, indicating the grade of accumulated backwardness in primary school. Results for each independent variable were analyzed controlling all the other family, institution and context variables, using the stepwise forward method, so that independent variables were included progressively in the model, analyzing the F statistic for making decisions about the inclusion of a large number of potential independent variables. At the end of the process, the only variable eliminated from the model, negatively affecting the goodness-of-fit statistics was the child employment. Girls, indigenous and disabled children are likely to have backwardness at school when compared to boys, non-indigenous and non-disabled children. One of the first variables tested in the model, children with health problems, was related to backwardness -however, after controlling other family and context factors, it lost significance. The mother and father co-residence and the number of children of different ages co-residing at home were progressively included, and they are likely to reduce backwardness, while individual children's health lost significance in the explanation of backwardness probability, until it completely disappeared. After considering family and context backgrounds, girls are more likely to be disadvantaged compared to boys, while the indigenous continue to be highly likely to be disadvantaged compared to non-indigenous, but with a lower coefficient. Disabled children seem to be a little protected by family variables due to (after the inclusion of family background) the decreasing negative effect of disability on backwardness -particularly considering

children who co-reside with parents - but it does not happen when including institution and context variables in the model. Children co-residing with both mother and father benefit from child education, but each additional child or adolescent in the household can increase the probability of a child 7-12 to have backwardness, and these family characteristics continue to be highly significant, even after being controlled by institution and context variables.

Social security, particularly the Popular Social Security, is highly significant in protecting children from educational backwardness; although the IMSS also protects children from difficult educational performance, although IMSS affiliation loses significance in the total explanation of the phenomenon, after controlling the marginalization index and the area of residence. Income level is not always significant for children presenting backwardness, but just the lowest quartile of income determines disadvantages, particularly after controlling every other variable, particularly the lack of domestic access to technologies, (such as computer, Internet and videogames) which loses its power of explanation after including other context variables. Marginalization index and area of residence are not always significant in explaining educational backwardness, after controlling other children, family and institutional characteristics, except the metropolitan area, where related backwardness is unlikely when compared to other smaller areas of residence. And finally, attending a public school, instead of a private one, increases significantly the probability of child educational backwardness and eliminates the effect of other variables in the model.

## Discussion

In the final model, the effects of the set of the variables vary according to the number of years of backwardness that children accumulate, which are analyzed separately in Table 1. Children with only one year of backwardness are unlikely to be delayed a year in school if they are girls, non indigenous, and non disabled, compared to boys, indigenous and disabled children. Children who are non-relatives of the head of the household are 1.6 times likely to have backwardness, compared to sons and daughters of the head (other relatives are not significant).

Household stability hypothesis is rejected, since the presence of the mother in the household is not significant in explaining child educational performance. Other family composition factors are relevant though, such as the number of children of different ages sharing the household. The absence or presence of only one child 0-6 years old is unlikely to be related to backwardness, compared to the co-residence with two or more small children. Also, co-residence with one or two children 7-12 years is unlikely to be related to one year of delay at school, compared to having three or more children of this age group sharing the household. The absence of co-resident adolescents 13-15 years old decreases the probability of having backwardness, compared to children who co-reside with two or more adolescents.

Moreover, the capabilities composition of the households is more relevant than couple stability itself. Co-residing with another household member with disability increases the probability of children to have one year of delay at school, although co-residing with another person with health problems is not relevant. Capabilities of women

co-residing with children in primary school are relevant also for their performance. Having mainly uneducated women in the household increases more than doubles the probability of children to have one year of backwardness at school, compared to women with more than tertiary studies. Other levels of female education, as well as female work, time of caring and female headship of the household are not significantly related to children having only one year of backwardness.

It appears that social connectedness, like institutional access, is crucial for child educational performance except in the case of accessing technologies, which is not significant enough to explain one year of delay at school. Accessing a private school, instead of a public one, strongly decreases the probability of backwardness, and the lack of access to a fellowship to study almost doubles this probability. However, co-residing with another member with fellowship or with health problem is not significant enough to explain one year of delay at school. A controversial result is that families with access to national social security, particularly IMSS, are likely to protect their children from backwardness, compared to ISSSTE or other systems, which supposedly provide better social conditions. Access to an Oportunidades program strongly decreases the probability of backwardness, as well as having international connectedness through remittances and international social security.

Disadvantages in context background are likely to be related to one year of child backwardness: having the lower level of nutrition insecurity (Level 1), compared to the highest; and a per capita income in lowest quartile increase 1.3 times, compared to the highest quartile, are likely to be related to one year of delay at school (but not the others). The official Marginalization Index is not significant in the model; but residing in metropolitan areas is unlikely to be related to backwardness, compared to living in rural areas (less than 2,500 inhabitants). Households that are less overcrowded are likely to decrease the probability of child backwardness (only level 3), compared to households with five or more members per room (level 5). Other levels are not significant.

The next category of the multinomial logistic model includes children with two or more years of backwardness and again, girls, indigenous and disabled children are strongly likely to accumulate years of delay at school. In contrast to children with one year of delay; in this case, children who are sons-daughters of the head are unlikely to have accumulated backwardness, compared to other relatives (zero relatives is not significant).

Stability, measured as mother in the household, is also not significant. And not co-residing with small children 0-6 years old decreases the probability of accumulated backwardness, compared to co-residing to two or more small children, as well as not co-residing with a child 7-12 years. But in this case, co-residing with adolescents 13-15 years old is not significant, as well as co-residing with another person with fellowship, with health problem or with disability. Uneducated women also double the probability of a child to accumulated backwardness, and even if they are in a lower level of education, such as primary incomplete or in the tertiary level of education, when compared to women with more than tertiary education (level 6), female employment, time use of caring and female headship is also not significant.

Accessing a public school decreases the probability of accumulating backwardness, while not receiving a fellowship increases it 3.5 times. Nutrition insecurity

and International remittances or access to pensions are not significant, except in the case of national social security, because not having any affiliation increases the probability of accumulating backwardness, and having IMSS affiliation decreases it, compared to ISSSTE and other affiliations. Access to Oportunidades program decreases even more strongly the accumulated backwardness. Overcrowding in the household, access to technology and marginalization are also not significant in explaining why children have two or more years of delay at school. The main context factor unlikely to be related to accumulated backwardness at primary school is residence in larger urban areas.

These results confirm that education matters also related to quality of life, mainly through the child disabled or the presence of any other disabled member of the household, and social connections, particularly having a fellowship, Oportunidades program and being at a private school are the main channels for children to have a better performance at primary school. More than health problems, disabilities have a negative effect on educational performance, decreasing quality of life through both, disability itself and backwardness, confirming Berhman's hypothesis.

Women illiteracy and disabilities affect capabilities from Stiglitz and Sen's perspective, but not necessarily from the family stability approach, since women illiteracy increase backwardness even in the absence of the mother. Therefore, women's education is preventing backwardness more through women agency and empowerment, than by motherhood itself. And social connectedness, particularly social policies and fellowships are crucial to prevent backwardness, in the sense of achieving justice, equality, citizenship, human and political development as freedom for both parents and children, boys and girls.

## Conclusions

Having an uneducated women living in the household is the main factor in doubling the child's probability of having one year of backwardness and almost three times the probability of having two years of backwardness at school and not having access to a fellowship as well increases by almost two and more than three times the probability to have backwardness. Attendance at a public school also is the most important factor to decrease backwardness in general.

There are other common variables to explain both - children with one and with two years of backwardness at school, such as sex, indigenous condition, no co-residence or co-residence with only another small children less than 6 years old, compared to co-residing with two or more small children (0 to 6) or with another child of the same age group (7 to 12), as well as having social security type 2 and residing in location type 1, compared to level 5. All of these factors decrease the probability of having one year of backwardness.

Differences emerge due to one year of backwardness being negatively affected by having another disabled member of the household, co-residing with two other children 7 to 12 years of age, and it is likely to occur if the child is not co-residing with an adolescent 13 to 15, as well as if their household has nutrition insecurity level one and with low income in the first quartile increasing the probability, as well as having not International connectedness, and overcrowding at level 3.

In contrast, having two years of backwardness is not affected by these factors, but it is negatively affected by being son/daughter of the head of the household, and positively affected by women with an educational level 2 or level 5 increase, and social security level zero.

The stability family approach is not confirmed, while the relevance of other social composition factors in the household, such as capabilities in education and health, particularly women's empowerment, as well as social connectedness established in relationships and institutional affiliation and participation, as well as context background factors are mostly relevant to explain backwardness at school, results which can be associated to Stiglitz, Sen and Fitoussi's approach about human development.

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Table 1. Coefficients in the Model on the Probability of Having One or Two Years of Backwardness, Children 7-12 years of age, Mexico. 2012.

	Independent Variables		One year of Backwardness Exp(B)	Two years of Backwardness Exp(B)
	Children 7-12 years old	Sex	Boy Girl	0.747*** .
Ethnicity		No	0.805*	0.683**
		Yes	.	.
Health Problem		No	1.027	1.203
		Yes	.	.
Disability		No	0.372***	0.185
		Yes	.	.
Relationship with the head of the household		No	1.658	1.012
	Son-daughter	0.864	0.768*	
	Other relatives	.	.	
Mother co-residence	Yes	0.880	0.884	
	No	.	.	
Kind of school	Private	.617***	0.657*	
	Public	.	.	
Fellowship	No	1.871***	3.520***	
	Yes	.	.	
Other relatives in the family	Number of children 0-6 years old	0	0.833*	0.744**
		1	0.779***	0.774*
		2	.	.
	Number of children 7-12 years old	1	0.655***	0.663***
		2	0.794***	1.058
		3	.	.
	Number of adolescents 13-15 years old	0	0.729*	0.760
		1	0.894	0.772
		2	.	.
	Other family member with fellowship	No	1.138	0.806
		Yes	.	.
	Other family member with health problem	No	1.090	1.097
Yes		.	.	
Other family member with disability	No	1.248*	1.074	
	Yes	.	.	
Mean level of education of adult women 20-59 years old	0	2.313***	2.701***	
	1-5	1.161	1.642***	
	6-8	0.936	1.166	
	9-11	1.166	1.265	
	12 to 15	1.062	1.505*	
	15+	.	.	
Mean of N. hs/week women work	0-19	0.999	0.851	
	20-39	0.985	0.917	
	40+	.	.	

Context	Mean of N. hs/week women childcare	0-19	1.064	1.217
		20-29	1.142	1.050
		30-39	0.997	.944
		40+	.	.
	Female headship	No	0.942	1.076
		Yes	.	.
Nutrition Insecurity Index	0	0.886	.984	
	1	1.140*	1.141	
	2	.	.	
	3	.	.	
Income per capita by quartiles	1	1.332*	1.018	
	2	1.213	0.867	
	3	1.156	0.999	
	4	.	.	
International remittance-pension	No	0.796*	0.911	
	Yes	.	.	
Network	Oportunidades	No	0.629***	0.503***
		Yes	.	.
	Social Security	No	1.042	1.375*
		Popular Soc. Sec.	0.979	1.152
		IMSS	0.746***	0.802*
		ISSSTE or other	.	.
	Overcrowd Index (number of households member per room)	1	1.020	1.237
		2	0.893	0.937
		3	0.796*	0.822
		4	0.886	0.842
5		.	.	
Technology Index	0-3	0.956	1.032	
	4	1.069	1.082	
	5+	.	.	
Area of residence	<100,000	0.818*	0.732*	
	10,000 to 99,999	0.918	0.876	
	2,499 to 9,999	0.846	0.850	
	>500 inhabitants	.	.	
Marginalization Index	1	1.225	1.361	
	2	1.110	1.147	
	3	1.090	1.082	
	4	0.948	0.983	
	5	.	.	

Source: own estimations, based in data from ENIGH 2012.