The Role of Maternal Schooling, Cognitive Ability and Public Determinants on Child Health

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I. Introduction

It is generally agreed that investments in human resources play an important role in economic growth. There is a vast literature showing that education is a key determinant of improved performance in the labor market, in one's business, on the farm and even in the home in the sense of its influence on the outcomes of one's children. Like schooling, health is a form of human capital and it is also correlated with improved functionality and productivity (Strauss and Thomas, 1998). But health is a good which there is no market for, and is therefore, produced within the household. Given household endowments and child rearing technology, the way parents allocate family resources has a direct impact on the child health. These decisions, in turn, affect not only the productivity of the children at school and at their jobs when grown up, but also influence their life expectancy.

For example, malnutrition in early stages of life has been shown to be correlated with child mortality and child morbidity. Likewise, an incipient child health has been shown to be related with a fall in cognitive ability and mental development. (Beaton, G.H., et. al, 1993, Bleichrodt and Born, 1994), and Wachs, T.D., 1995)

The literature on child health and nutrition in a socioeconomic context has been analyzed by several authors. Shultz (1984) reviews the impact of household economic and community variables on child mortality; Wolfe and Behrman (1982), and Thomas and Strauss (1990) investigate the interdependence of child height and nutritional status with child survival; Barrera (1990) studies the role of maternal schooling and its interaction with public health programs in child health production; and Thomas (1990, 1994) investigates how household differences in resource allocations on child health reflect both technological differences in child rearing and differences in the preferences of the parents.

A stumbling block of this literature suggests that mothers play a central role in household and child rearing activities. As a result, mother's education has been commonly described as key determinant of child health. Four channels have been proposed at least through which maternal education enhances the child health: a) it improves productivity of health inputs due to better knowledge and access to new information; b) it makes allocation of resources more efficient c) it increases the economic resources available to the family via her participation in economic activities, and d) as proxy of individual permanent income, it becomes to the mother an important bargaining

power in the household decision making, shifting household preferences towards child human capital investments.

While some efforts have been made to separate the differential mechanisms through which mother's unobserved human capital impacts health outcomes, controversy still exists on how much estimated returns are linked to human capital acquired at school, from how much they reflect unobserved childhood background [Wolf & Behrman (1987)] and intra-generation transmission of knowledge [Behrman & Wolf (1987)], from how much they reflect maternal capacity to process information [Thomas, et. al. (1990)] in procuring her children's health.

This paper tries to bridge the gap and investigates the role of maternal cognitive ability in enhancing her children's health--separate from returns to schooling. To do so, we first assess the magnitude of the returns to schooling relative to those of maternal cognitive ability, controlling for other measures of human capital. Second, we analyze the mechanism through which maternal cognitive ability improves the health of her children. In particular, a) we start analyzing how the effect of maternal cognitive ability can be explained by the mother's childhood background; b) how much it operates through contemporaneous child health determinants, such as child rearing experience and household wealth accumulation; and c), how much maternal cognitive ability plays a role in child's health by expanding the productivity of community health infrastructure and social policy programs available to the household

Our results show that maternal cognitive ability is an important factor in determining the health of children, even after controlling for child's age and gender, parental age, mother's and father's years of schooling and mother's height. We find that maternal cognitive ability estimates are very robust to the inclusion of important measures of maternal childhood characteristics, such as her parents years of schooling and the mother's place of residence during her primary and high-school years. We conclude, therefore, that background characteristics play little role in her children's health as explained through the mother cognitive capacity. In line with the literature, we find household wealth, --as measured by total value of assets, and household total expenditure--, to be an important determinant of children's health. Household long term measures of wealth, reduce the effect of maternal cognitive ability on child's health by 10 percent. This suggests the possibility that cognitive ability enhances child's health by improving maternal capability of providing wealth to the household, perhaps by means of labor productivity and or/ savings decisions. However, the fact the effect of mother's cognitive ability remains significant, suggests that maternal cognitive ability may also improve the children's health via other mechanisms other than household wealth accumulation. **(Next version of the paper will analyze the connection of maternal cognitive**

ability with child rearing experience and community health determinants. We are in the course of processing the information and constructing the database for this final analysis).

Our results are based on the extremely rich information gathered in the Mexican Family Life Survey (MxFLS) which in addition to usual household demographics, it provides in a single instrument information on maternal childhood background, maternal cognitive ability through the application of Raven tests that require no literacy; data of household expenditure on durable and non-durable goods, household and individual income, as well as value of household assets. Our child health analysis is based on anthropometric information of every child living in the household, that allows us to construct weight for age, and height for age z-scores, as short and long measures of child health. MxFLS provides data on fertility and childbirth histories of every women in the household in reproductive health, which allows us to construct measures of motherhood experience. In addition, MxFLS provides extensive data on community characteristics and information of private and public health inputs available to the household.

Section two of the paper presents the model; section three describes the data used for the analysis while section four presents the empirical strategy and discusses our findings. Conclusions are found at the end of the paper.

II. Model

For simplicity, we define the household welfare as a function of each parent's preferences as dependent upon parental (observed and unobserved) characteristics, and on *all* household member's private and public consumption.[1] This allows us to explain any altruistic behavior and externalities in consumption that are essential in modeling why parents allocate resources in the provision of health to their children:

$$W = \left[U^m \left(X, H, u_m, u_f, \varepsilon_m, \varepsilon_f \right), U^f \left(X, H, u_m, u_f, \varepsilon_m, \varepsilon_f \right) \right] \tag{1}$$

X represents a vector of market commodities, including leisure; *H* stands for all non-market goods produced at home, such as child's health investment; u_m and u_f denote mother's and father's

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[1] We impose no a priori restriction on the household decision making mechanism.

observed background characteristics such as age, and human capital; and ε_m and ε_f correspond to vectors of parental unobservable characteristics, such as tastes.

The household welfare function is maximized, subject to the family budget constraint;[2]

$$PX = Y,$$

$$Y_i = E_j + ny_j \qquad (2)$$

P is a vector of market prices excluding the price of leisure; and Y stand for household total income, as a linear combination of household earnings (E) and non-labor income (ny_i). Earnings depend as usual, on individual's wage and on a time constraint.

The health of the children in the family does not depend merely on the parents' preferences in the allocation of resources. Other variables such as child biological factors, community characteristics and each parent's specific technology in raising children become important elements in determining the health status of the child. This is captured by a non-market commodity production function that summarizes any private and public inputs in the procurement of health:

$$H = H(X, X_n, \theta, \eta_p, \eta_c) \qquad (3)$$

H depends on any market purchased (X) and non-market (X_n) inputs that are related to the health status of the child, such as food intake, utilization of health services and breast-feeding, respectively. We also incorporate a vector of child's characteristics (θ), such as age and gender, that controls for biological factors influencing the child's health. η_p is a vector of parental-specific characteristics that reflects child-rearing technology. η_p can be thought as parental age, years of schooling, cognitive ability and any other background characteristics. η_c captures characteristics related to the environment that surrounds the household, such as community quantity and quality of public services, type of sewage, water facilities and garbage disposal services, public policy interventions such as health talks and vaccination campaigns, consumption goods prices, and regional climate.

The maximization process leads to aggregate market and non-market household commodity demands for each element of X and H, which includes child's health investments:

$$X^* = G_x(P, y_m, y_f; u_m, u_f, \varepsilon_m, \varepsilon_f; \theta, \eta_p, \eta_c)$$

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[2] For simplicity, we assume parental incomes to be the only source of family monetary resources.

$$H^* = G_z\left(P, y_m, y_f; u_m, u_f, \varepsilon_m, \varepsilon_f; \theta, \eta_p, \eta_c\right) \qquad (4)$$

These optimal demands – including the demand for child health (such as child height) depend on a vector P of commodity prices, and on the set of observed and unobserved household and community characteristics that reflect parental preferences and child rearing technology in the allocation of resources within the household. Section IV of the paper deals with the empirical strategy that estimates the child's health as a component of H^*.[3] We turn next to the description of the data.

III. Data

The data we use comes from The Mexican Family Life Survey, 2002 (MxFLS-1). This survey is a multi-purpose household survey, representative at the national, urban-rural and regional levels[4] and was collected during the months of April-July 2002. The survey was designed by researchers at *Centro de Investigación y Docencia Económicas (CIDE)*, and *Universidad Iberoamericana*, but adopts the methodology and protocols followed in the Indonesian Family Life Surveys. The survey was fielded by The Mexican National Institute of Statistics, Geography and Informatics, the equivalent of the U.S. Bureau of the Census. Since this survey is new and so far little is known about it, a brief summary describing it follows.

The multi-dimensional characteristic of the survey enabled to collect detailed demographic, socioeconomic and health information about all the individuals who conform the Mexican households. MxFLS-1 gathers, in one single database, detailed information on:

Household level data

Total expenditure and auto-consumption/production by the household, agricultural land ownership and detailed information about each plot, non-agricultural businesses, non-labor income, asset ownership (wealth), saving decisions, formal and informal credit, debts, economic household shocks, crime and victimization suffered at the house, business or plot, and detailed information about every event; total non labor household income, dwelling characteristics, living arrangements and environmental shocks suffered by the household/community. This information is gathered from one single respondent.

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[3] In this context, H* corresponds to a vector of household aggregate health demand including child health.
[4] The data is still preliminary since INEGI continues to validate and conduct public use activities.

Individual level data

Information from every member of the household is collected on the following matters: schooling; retrospective histories of migration, marriage, births and deaths of children, labor force participation, labor income of adults; monetary and in kind transfers, time allocation of adults and children, credits and loans, human capital investment levels and decision-making; socio-demographic and geographic information of the individuals that conform the extended family, individual health status both objective and subjective of all members in the household (own perception; habits and functioning indicators; chronic diseases; morbidity, anthropometric outcomes; hemoglobin levels; as well as demand for health services), reproductive health of all women in the household in fertile age and the use of contraceptive methods.

Since the well-being of the individuals also depends on the environment that surrounds them (community infrastructure and services and quality of the services offered), parallel to the household interviews, MxFLS-1 also conducted fieldwork activities at the community level. MxFLS baseline included the application of a locality/community questionnaire, with the objective of embodying qualitative and quantitative information at the community level about: schools, health services, and socioeconomic past and present infrastructure characteristics. Instruments were applied in every community in which MxFLS-1 respondents lived. These instruments consisted of interviews with community leaders, and personnel in charge of health institutions and schools. The following information was gathered: history, economic and physical infrastructure of the locality (for example, wages, availability of public services, existence of roads, natural disasters, crimes), as well as a price module collecting local prices and availability of food, medicine and basic goods.

MxFLS-1 sample consists approximately[5] of 8,400 households. For this study we will select all children less than 18 years of age who have either a father or mother living in the household. The total number of observations to in this sub-sample is 14,142 children. Descriptive statistics can be found in table 1. On average, mothers are four years younger than fathers; they are also less educated and shorter and they tend to score slightly worse than fathers on the Raven´s test. In most households the presence of a mother is almost always apparent, less so that of her partner. With respect to mother background characteristics, the grandmother´s and grandfather´s education is less than three years. The sample we focus on is close to 60 percent urban.

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[5] Based on the regional definition in the official National Plan for Development.

Tables 2 and 3 presents descriptive health statistics relating specific child-age and gender categories selected for this study. Two are the objective health indicators that we will focus on: weight for age and height for age, as short and long term measures of child health, respectively.

The first panel reports weight for age as measured by z-scores. The final six columns report the percentage of children below or above the 2-z score threshold. According to these numbers, 3.7 percent of children in the (4-6) age category have a weight for their age below the standard U.S. population, while 4.4 above it. It appears that as children age, less children appear to suffer from low weight for age, but more of them from a high weight for age. That is, as children age, on average, tend to weight more for they age, which might be indicative of prevalence of obesity.

Height for age statistics are shown in table 2. The first three columns correspond to the height of the children measured in centimeters. The next three columns refer to standardized z-scores while the last 6 to the percentage of children outside the 2 z-score deviation. From here, we have that 25 of children in the first age category have a lower height for their age, while only 2 percent a higher one. In general, these numbers suggest, that for all age categories, whenever Mexican children are outside the 2 z-score deviation range, it is more related to presenting a lower stature for their age, rather a higher one.

IV. Empirical Strategy and Findings

In the estimation of the determinants of child health, mother´s human capital has proven to be an important variable in leading to estimates of what has been denominated returns to schooling in the procurement of health. These returns have often been overstated by the exclusion of unobserved characteristics of the mother, which are very hard to find in one single source, leading to biased estimates of the impact of maternal years of education. Therefore, we start our empirical analysis by assesing the importance of other measures of human capital, such as mother's height and maternal cognitive ability as child's health determinants in addition to years of schooling. We next turn to understand the role that maternal cognitive ability plays as child health improver. We analyze how related is the mother's cognitive ability with her childhood background in determining her children's health. We next turn to investigate the correlation of maternal cognitive ability with contemporaneous child's health determinants. In particular, we analyze how important is mother's cognitive ability in improving her child´s health by means of providing additional wealth and prosperity to the household; how important is the relation of the mother's cognitive ability and child rearing experience in enhancing her child's health; and finally, we ask ourselves the question if

maternal cognitive ability plays a role in child's health by expanding the productivity of community health infrastructure available to the household.

We start with standard parental characteristics as determinants of child health, and marginally add variables to understand the contribution of each on the outcomes of interest. As our measures of child health we will focus on two outcomes: child weight for age and child height for age. This analysis is carried out using a sample of children less than 18 years of age.

The first results relate to child´s weight for age as the dependent variable and are presented in Table 1A. The first column relates children´s health with standard parental characteristics: father´s and mother´s education and age. As expected mother´s education plays an important role in determining the child´s health. Relative to the father, mother´s schooling appears to have a larger impact. It is these effects that the economics literature have denominated, *returns to schooling* in the procurement of health. The magnitude of these effects are large, perhaps because they confound the impact of other important maternal variables. In an effort to expand the vector of traditional parental characteristics, we include other measures of human capital of the mother.

The second column incorporates, in addition to previous controls, the height of the mother, while the third and fifth standardized results on Raven´s Progressive Matrices test, all with the objective of capturing whether broader concepts of human capital affect the health of the child. Mother´s height reflects not only biological, inherited factors but also early investments in health and is associated with more accumulated human capital. As shown, the inclusion of this additional control results in lower returns to schooling, indicating that indeed, all else constant, taller mother´s procure their offspring´s health.

Likewise, Raven´s progressive matrices tests are intended to capture individual cognitive ability which is a measure of the capacity of individuals to learn. To see the effect of this variable alone, column three displays results when mother´s Raven is included, but not mother´s height. Like before, returns to schooling drop, suggesting that schooling effects confound typically unobserved characteristics such as the mother´s innate ability to procure health. This variable is statistically significant.

Column 4 displays the results when both, mother's height and her Raven´s are jointly included. As expected, returns to schooling drop even more than in previous specifications, indicating the relevance of including other parental characteristics when estimating educational returns to health. Noteworthy is the fact that mother´s Ravens, although smaller in magnitude, continues to be very significant.

Column 5 includes results when father´s Raven is added to the previous specification. Neither returns to schooling nor the effect of Mother´s Raven change with this additional control. This result is in line with the literature which suggests that it is mother´s human capital that is more directly related to investing in the health of children.

In order to better understand the mechanisms by which the cognitive ability of mother´s affect the health of their children we proceed to investigate the impact that mother´s background may have on the desired outcome. For example, this ability might operate through background characteristics if there is intergenerational transmission of human capital.. The objective of the following specifications is to examine this contention. Column 6 includes controls for grandmother and grandfather´s education, while column 7 and 8 incorporate controls for whether each grandparent cohabitated in the same household, and whether the mother lived in an urban area up until she was 12 years of age.

Results in column 6 indicate that grandmother´s schooling is positively associated with grandchildren´s health, while grandfather´s schooling has no effect. These results are corroborrated in column 7 when additional controls for whether the grandparents reside in the same dwelling are included. The idea of including the latter variables relate to the possible impact that could be observed on the child´s well-being if the grandparents, that co-reside with him/her, dedicates time and resources towards their grandchildren. The coefficient of mother´s returns to schooling does not change in either of the specifications. The coefficient on mother´s Raven does not change either and remains highly significant.

In order to take into account additional mother background characteristics, we include a measure of whether the mother lived in an urban o rural area up to when she was 12 years old. This variable will partly reflect the environment she was exposed to when she was growing up as well as serve as a measure of the possible quality of schooling she might have got. This variable is highly significant and somewhat reduces the coefficient on the returns to schooling. Raven´s score coefficients remain about the same magnitude and continue to be statistically significant.

However, it is possible that individuals who lived in urban areas when little continue to live in urban areas now.. For this reason, specification in column 9 further controls for whether the mother currently lives in an urban setting. The impact of having lived in an urban area when little completely disappears after this control is included. However the coefficients on returns to mother´s schooling and on mother´s Raven´s scores remain very robust.

All results related to background characteristics speak to the fact that, although important in determining the health of children, they do not mediate the impact that cognitive ability has by itself. Cognitive ability apparently is yet another form of human capital that determines the health of the child in an important way independently from mother's childhood background and years of schooling.

Nevertheless, the relationship between the cognitive ability of the mother with the health of their children could be mediated with mechanisms of intermediation of daily living. For example, these mechanisms could be related to exploiting the mothers experience as a mother with subsequent children, a better capacity to take advantage of available resources in the community towards the procurement of the health of their children (in terms of infrastructure, social programs) or through the possibility of attracting more wealth to the household in the form of higher long term income. The following section will investigate these mechanisms.

Another way in which cognitive ability might operate is through wealth measures since higher human capital is related to higher labor productivity, higher earnings, and thus higher wealth, and higher wealth to a better holding of health. We thus further investigate whether economic resources brought to the household can explain in part the mechanism through which the cognitive ability of the mother affect her children health. Column 10 controls for a measure of household wealth (household total assets). As expected, this variable is positive and highly significant, but has no impact either on the returns to schooling or the Raven´s score. Column 11 includes a different measure of economic resources, household total expenditure, to attempt to better control for a measure of permanent income. This variable has a bigger impact on child´s health and it is also very significant. It´s inclusion has no effect on the returns to schooling and a small one on Raven´s score. This last result is suggestive that part of cognitive ability indeed operates through income. The fact that Raven´s score continues to be positive and significant, after controlling for wealth measures, is in line with other forms of human capital—typically unobserved--affecting the health of children.

Table 2A reports the results related to child´s height for age z-score as dependent variable. These results are qualitatively very similar to those in Table 1A, although the magnitudes in the returns to schooling are slightly lower and the impact of Raven´s scores higher and very significant.

Results in tables 1A and 2A refer to all children in the sample between the ages of 0 and 18 years. In order to investigate whether these results hold for smaller and older children we split the analysis into two groups: those from 10 to 18 and those below the age of 10. Corresponding results

for children less than 10 are displayed in tables 1B and 1C for child´s weight for age z-score and child´s height for age respectively and in 2B and 2C for children above 10.

Returns to mother´s schooling in the procurement of health are very similar to those presented in previous tables. However, Raven´s scores are only significant for the sample of older children. These results might be suggestive the way in which the cognitive ability of the mother affects the health of their children is through a process that takes time and that only materializes as children age.

VI. Conclusions

(Pending)

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TABLE 1A
Dependent Variable: Child's Weight for Age Z-Score   (All ages)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Parental characteristics												
mother's education												
elementary	0.2197	0.173	0.1916	0.1569	0.1564	0.1547	0.1545	0.1464	0.1364	0.1364	0.1376	0.0278
	[0.0498]***	[0.0455]***	[0.0500]***	[0.0457]***	[0.0457]***	[0.0456]***	[0.0457]***	[0.0477]***	[0.0481]***	[0.0457]***	[0.0467]***	[0.0449]
secondary	0.4722	0.3361	0.41	0.3011	0.3007	0.2923	0.2952	0.2712	0.2516	0.2535	0.2392	0.106
	[0.0556]***	[0.0521]***	[0.0566]***	[0.0531]***	[0.0531]***	[0.0533]***	[0.0534]***	[0.0572]***	[0.0578]***	[0.0535]***	[0.0552]***	[0.0549]*
technical secondary	0.5206	0.3842	0.4418	0.3403	0.3402	0.3267	0.3277	0.3086	0.2747	0.2596	0.2514	0.1192
	[0.0704]***	[0.0668]***	[0.0719]***	[0.0682]***	[0.0682]***	[0.0690]***	[0.0692]***	[0.0719]***	[0.0731]***	[0.0696]***	[0.0717]***	[0.0714]*
high school +	0.5584	0.4201	0.4706	0.3697	0.3694	0.3563	0.3541	0.3417	0.3188	0.3055	0.3073	0.1684
	[0.0652]***	[0.0621]***	[0.0670]***	[0.0636]***	[0.0636]***	[0.0643]***	[0.0643]***	[0.0692]***	[0.0703]***	[0.0648]***	[0.0673]***	[0.0670]**
father's education												
elementary	0.1209	0.0917	0.1029	0.0816	0.0787	0.0805	0.0785	0.0979	0.1145	0.094	0.1072	0.0944
	[0.0602]**	[0.0556]*	[0.0603]*	[0.0558]	[0.0560]	[0.0557]	[0.0558]	[0.0584]*	[0.0575]**	[0.0546]*	[0.0563]*	[0.0534]*
secondary	0.236	0.1715	0.2066	0.155	0.1483	0.1515	0.1487	0.1651	0.1694	0.1422	0.1538	0.1212
	[0.0654]***	[0.0611]***	[0.0656]***	[0.0613]**	[0.0620]**	[0.0613]**	[0.0615]**	[0.0651]**	[0.0648]**	[0.0606]**	[0.0628]**	[0.0607]**
technical secondary	0.1597	0.1103	0.1294	0.0932	0.0847	0.0913	0.0888	0.0985	0.0978	0.0628	0.0627	-0.0133
	[0.0969]*	[0.0914]	[0.0971]	[0.0916]	[0.0922]	[0.0915]	[0.0918]	[0.0947]	[0.0991]	[0.0956]	[0.0969]	[0.0960]
high school +	0.2757	0.1766	0.2384	0.1558	0.1447	0.1506	0.1524	0.1743	0.1808	0.1371	0.1486	0.1461
	[0.0715]***	[0.0680]***	[0.0716]***	[0.0682]**	[0.0696]**	[0.0683]**	[0.0685]**	[0.0728]**	[0.0727]**	[0.0678]**	[0.0710]**	[0.0688]**
mother's age	0.0089	0.0103	0.0089	0.0102	0.0102	0.0104	0.0104	0.0114	0.0113	0.0095	0.0101	0.0089
	[0.0019]***	[0.0018]***	[0.0019]***	[0.0018]***	[0.0018]***	[0.0018]***	[0.0018]***	[0.0020]***	[0.0020]***	[0.0018]***	[0.0019]***	[0.0018]***
mother's height	-	0.0387	-	0.038	0.0379	0.0376	0.0375	0.0384	0.0387	0.0377	0.0375	0.0298
		[0.0020]***		[0.0020]***	[0.0020]***	[0.0020]***	[0.0020]***	[0.0021]***	[0.0021]***	[0.0020]***	[0.0021]***	[0.0022]***
Standarized Raven test (Dev. Over the mean)												
mother's Z-scores	-	-	0.0705	0.0414	0.0388	0.0394	0.0392	0.035	0.0339	0.0355	0.0279	0.0162
			[0.0139]***	[0.0134]***	[0.0138]***	[0.0135]***	[0.0135]***	[0.0138]**	[0.0140]**	[0.0135]***	[0.0138]**	[0.0137]
father's Z-scores	-	-	-	-	0.0109	-	-	-	-	-	-	-
					[0.0142]							
HH Wealth												
ln (total HH expenditure)	-	-	-	-	-	-	-	-	-	-	0.0877	0.0651
											[0.0187]***	[0.0193]***
ln (total HH assets)	-	-	-	-	-	-	-	-	-	0.0248	-	-
										[0.0053]***		
mother background												
grandmother's education	-	-	-	-	-	0.0114	0.0111	0.0073	0.0053	-	-	-
						[0.0060]*	[0.0060]*	[0.0063]	[0.0063]			
grandfather's education	-	-	-	-	-	-0.0037	-0.0033	-0.0038	-0.005	-	-	-
						[0.0056]	[0.0057]	[0.0058]	[0.0060]			
grandmother living in HH	-	-	-	-	-	-	0.0373	0.0368	0.0399	-	-	-
							[0.0536]	[0.0580]	[0.0583]			
grandfather living in HH	-	-	-	-	-	-	-0.0522	-0.0359	-0.0407	-	-	-
							[0.0634]	[0.0685]	[0.0698]			
lived in urban area from 0 to 12 years old	-	-	-	-	-	-	-	0.0898	0.0476	-	-	-
								[0.0324]***	[0.0346]			
Community characteristics												
urban locality	-	-	-	-	-	-	-	-	0.1352	0.1477	0.1271	0.0096
									[0.0292]***	[0.0263]***	[0.0273]***	[0.1893]
Observations	13601	13601	13601	13601	13601	13601	13553	12351	12064	13281	12646	12646
R²	0.0510	0.0910	0.0540	0.0920	0.0930	0.0930	0.0930	0.0970	0.1000	0.0990	0.0990	0.139

Source: MXFLS 1

TABLE 2A
Dependent Variable: Child's Height for Age Z-Score   (All ages)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Parental characteristics													
mother's education													
	elementary	0.2172	0.1451	0.1844	0.1311	0.1308	0.1293	0.1280	0.1236	0.1211	0.1200	0.1229	0.0512
		[0.0516]***	[0.0423]***	[0.0518]***	[0.0425]***	[0.0425]***	[0.0425]***	[0.0425]***	[0.0443]***	[0.0447]***	[0.0424]***	[0.0438]***	[0.0403]
	secondary	0.4793	0.2675	0.4067	0.2370	0.2365	0.2293	0.2310	0.2238	0.2143	0.2056	0.2009	0.1139
		[0.0553]***	[0.0463]***	[0.0561]***	[0.0471]***	[0.0471]***	[0.0475]***	[0.0476]***	[0.0509]***	[0.0516]***	[0.0475]***	[0.0496]***	[0.0474]**
	technical secondary	0.4967	0.2865	0.4042	0.2472	0.2471	0.2353	0.2357	0.2290	0.2083	0.1912	0.1931	0.1351
		[0.0681]***	[0.0577]***	[0.0693]***	[0.0589]***	[0.0589]***	[0.0599]***	[0.0601]***	[0.0626]***	[0.0637]***	[0.0601]***	[0.0619]***	[0.0598]**
	high school +	0.5774	0.3616	0.4750	0.3178	0.3172	0.3061	0.3054	0.2952	0.2841	0.2758	0.2758	0.185
		[0.0622]***	[0.0538]***	[0.0637]***	[0.0551]***	[0.0551]***	[0.0558]***	[0.0559]***	[0.0600]***	[0.0612]***	[0.0561]***	[0.0593]***	[0.0579]***
father's education													
	elementary	0.1443	0.0978	0.1231	0.0888	0.0869	0.0879	0.0863	0.1041	0.1059	0.0881	0.0909	0.0949
		[0.0658]**	[0.0553]*	[0.0657]*	[0.0553]	[0.0553]	[0.0552]	[0.0553]	[0.0583]*	[0.0591]*	[0.0555]	[0.0580]	[0.0539]*
	secondary	0.3176	0.2150	0.2832	0.2006	0.1952	0.1976	0.1988	0.2165	0.2082	0.1831	0.1893	0.185
		[0.0698]***	[0.0590]***	[0.0696]***	[0.0590]***	[0.0592]***	[0.0588]***	[0.0589]***	[0.0623]***	[0.0635]***	[0.0595]***	[0.0625]***	[0.0590]***
	technical secondary	0.2936	0.2162	0.2579	0.2009	0.1959	0.1996	0.1967	0.2002	0.1772	0.1586	0.1607	0.1492
		[0.1011]***	[0.0892]**	[0.1004]**	[0.0888]**	[0.0892]**	[0.0889]**	[0.0891]**	[0.0921]**	[0.0949]*	[0.0912]*	[0.0933]*	[0.0897]*
	high school +	0.3206	0.1649	0.2771	0.1469	0.1387	0.1425	0.1358	0.1506	0.1491	0.1270	0.1288	0.1565
		[0.0739]***	[0.0640]***	[0.0739]***	[0.0640]**	[0.0645]**	[0.0640]**	[0.0641]**	[0.0683]**	[0.0699]**	[0.0649]*	[0.0683]*	[0.0655]**
	mother's age	0.0093	0.0112	0.0092	0.0112	0.0112	0.0114	0.0113	0.0134	0.0133	0.0105	0.0112	0.0097
		[0.0019]***	[0.0017]***	[0.0019]***	[0.0017]***	[0.0017]***	[0.0018]***	[0.0018]***	[0.0018]***	[0.0019]***	[0.0018]***	[0.0018]***	[0.0018]***
	mother's height	-	0.0604	-	0.0598	0.0598	0.0595	0.0594	0.0602	0.0603	0.0595	0.0599	0.0475
			[0.0019]***		[0.0019]***	[0.0019]***	[0.0019]***	[0.0019]***	[0.0020]***	[0.0020]***	[0.0020]***	[0.0020]***	[0.0021]***
Standarized Raven test (Dev. Over the mean)	mother's Z-scores	-	-	0.0828	0.0370	0.0350	0.0352	0.0354	0.0335	0.0334	0.0334	0.0321	0.0194
				[0.0135]***	[0.0118]***	[0.0122]***	[0.0119]***	[0.0119]***	[0.0123]***	[0.0125]***	[0.0120]***	[0.0122]***	[0.0121]
	father's Z-scores	-	-	-	-	0.0088	-	-	-	-	-	-	-
						[0.0124]							
HH Wealth													
	ln (total HH expenditure)	-	-	-	-	-	-	-	-	-	-	0.0412	0.0114
												[0.0171]**	[0.0170]
	ln (total HH assets)	-	-	-	-	-	-	-	-	-	0.0201	-	-
											[0.0052]***		
mother background													
	grandmother's education	-	-	-	-	-	0.0107	0.0102	0.0082	0.0071	-	-	-
							[0.0052]**	[0.0052]*	[0.0054]	[0.0055]			
	grandfather's education	-	-	-	-	-	-0.0039	-0.0032	-0.0031	-0.0033	-	-	-
							[0.0050]	[0.0050]	[0.0052]	[0.0053]			
	grandmother living in HH	-	-	-	-	-	-	0.0558	0.0637	0.0645	-	-	-
								[0.0464]	[0.0496]	[0.0502]			
	grandfather living in HH	-	-	-	-	-	-	-0.1051	-0.0985	-0.0998	-	-	-
								[0.0553]*	[0.0597]*	[0.0610]			
	lived in urban area from 0 to 12 years old	-	-	-	-	-	-	-	0.0611	0.0291	-	-	-
									[0.0273]**	[0.0296]			
Community characteristics													
	urban locality	-	-	-	-	-	-	-	-	0.0875	0.0919	0.0869	0.1823
										[0.0266]***	[0.0236]***	[0.0245]***	[0.2268]
	Observations	13601	13601	13601	13601	13601	13601	13553	12351	12064	13281	12646	12646
	R²	0.1000	0.2080	0.1050	0.2090	0.2090	0.2090	0.2100	0.2120	0.2120	0.2110	0.2090	0.25

Source: MXFLS 1

Dependent Variable: Child's Weight for Age Z-Score   (children <10 years)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Parental characteristics													
mother's education													
	elementary	0.2472	0.1927	0.2224	0.1835	0.1824	0.1832	0.1833	0.1752	0.1693	0.1651	0.1549	0.0499
		[0.0774]***	[0.0713]***	[0.0772]***	[0.0714]**	[0.0715]**	[0.0713]**	[0.0713]**	[0.0752]**	[0.0759]**	[0.0715]**	[0.0725]**	[0.0697]
	secondary	0.5216	0.3677	0.4629	0.3450	0.3444	0.3403	0.3455	0.3202	0.3010	0.2950	0.2688	0.1388
		[0.0834]***	[0.0787]***	[0.0845]***	[0.0797]***	[0.0798]***	[0.0798]***	[0.0799]***	[0.0856]***	[0.0868]***	[0.0807]***	[0.0826]***	[0.0813]*
	technical secondary	0.6065	0.4492	0.5399	0.4263	0.4255	0.4197	0.4237	0.4121	0.3722	0.3330	0.3150	0.1841
		[0.0981]***	[0.0940]***	[0.1004]***	[0.0963]***	[0.0962]***	[0.0968]***	[0.0970]***	[0.1018]***	[0.1042]***	[0.0992]***	[0.1015]***	[0.1005]*
	high school +	0.6486	0.4940	0.5651	0.4603	0.4589	0.4526	0.4510	0.4574	0.4294	0.3870	0.3770	0.2545
		[0.0943]***	[0.0905]***	[0.0966]***	[0.0925]***	[0.0927]***	[0.0932]***	[0.0932]***	[0.0998]***	[0.1018]***	[0.0948]***	[0.0966]***	[0.0964]***
father's education													
	elementary	0.2185	0.1691	0.2075	0.1665	0.1639	0.1649	0.1608	0.1973	0.2306	0.1917	0.2189	0.1513
		[0.0874]**	[0.0807]**	[0.0872]**	[0.0807]**	[0.0810]**	[0.0807]**	[0.0808]**	[0.0847]**	[0.0832]***	[0.0783]**	[0.0823]***	[0.0823]*
	secondary	0.3512	0.2406	0.3269	0.2325	0.2260	0.2308	0.2250	0.2589	0.2776	0.2267	0.2506	0.1717
		[0.0933]***	[0.0871]***	[0.0935]***	[0.0876]***	[0.0889]**	[0.0876]***	[0.0878]**	[0.0930]***	[0.0923]***	[0.0857]***	[0.0900]***	[0.0908]*
	technical secondary	0.2894	0.1957	0.2709	0.1916	0.1841	0.1934	0.1866	0.2134	0.2348	0.1789	0.1873	0.0342
		[0.1273]**	[0.1221]	[0.1272]**	[0.1223]	[0.1233]	[0.1225]	[0.1227]	[0.1260]*	[0.1318]*	[0.1275]	[0.1303]	[0.1312]
	high school +	0.3275	0.1787	0.2958	0.1673	0.1575	0.1668	0.1641	0.1951	0.2145	0.1582	0.1710	0.1292
		[0.0995]***	[0.0943]*	[0.0998]***	[0.0948]*	[0.0972]	[0.0951]*	[0.0953]*	[0.1002]*	[0.0999]**	[0.0937]*	[0.0990]*	[0.0994]
	mother's age	0.0095	0.0100	0.0094	0.0099	0.0099	0.0100	0.0099	0.0115	0.0113	0.0094	0.0105	0.0092
		[0.0027]***	[0.0026]***	[0.0027]***	[0.0026]***	[0.0026]***	[0.0026]***	[0.0026]***	[0.0028]***	[0.0029]***	[0.0026]***	[0.0027]***	[0.0027]***
	mother's height	-	0.0430	-	0.0426	0.0425	0.0422	0.0419	0.0425	0.0435	0.0429	0.0426	0.035
			[0.0028]***		[0.0028]***	[0.0028]***	[0.0029]***	[0.0028]***	[0.0029]***	[0.0030]***	[0.0028]***	[0.0029]***	[0.0031]***
Standarized Raven test (Dev. Over the mean)	mother's Z-scores	-	-	0.0595	0.0230	0.0208	0.0214	0.0208	0.0145	0.0125	0.0169	0.0104	-0.0012
				[0.0198]***	[0.0191]	[0.0196]	[0.0192]	[0.0193]	[0.0198]	[0.0201]	[0.0194]	[0.0197]	[0.0197]
	father's Z-scores	-	-	-	-	0.0093	-	-	-	-	-	-	-
						[0.0201]							
HH Wealth													
	ln (total HH expenditure)	-	-	-	-	-	-	-	-	-	-	0.0926	0.0759
												[0.0267]***	[0.0282]***
	ln (total HH assets)	-	-	-	-	-	-	-	-	-	0.0241	-	-
											[0.0076]***		
mother background													
	grandmother's education	-	-	-	-	-	0.0121	0.0119	0.0079	0.0060	-	-	-
							[0.0077]	[0.0077]	[0.0081]	[0.0081]			
	grandfather's education	-	-	-	-	-	-0.0084	-0.0075	-0.0068	-0.0081	-	-	-
							[0.0072]	[0.0072]	[0.0075]	[0.0077]			
	grandmother living in HH	-	-	-	-	-	-	0.0446	0.0476	0.0397	-	-	-
								[0.0718]	[0.0782]	[0.0784]			
	grandfather living in HH	-	-	-	-	-	-	-0.1078	-0.0932	-0.0885	-	-	-
								[0.0790]	[0.0855]	[0.0872]			
	lived in urban area from 0 to 12 years old	-	-	-	-	-	-	-	0.0670	0.0165	-	-	-
									[0.0435]	[0.0474]			
Community characteristics													
	urban locality	-	-	-	-	-	-	-	-	0.1502	0.1608	0.1410	0.0377
										[0.0414]***	[0.0370]***	[0.0379]***	[0.2215]
	Observations	7015	7015	7015	7015	7015	7015	6988	6387	6227	6833	6554	6554
	R^2	0.0580	0.1020	0.0600	0.1020	0.1030	0.1030	0.1030	0.1050	0.1090	0.1090	0.1090	0.158

Source: MXFLS 1

TABLE 2B
Dependent Variable: Child's Height for Age Z-Score   (children <10 years)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Parental characteristics													
mother's education													
	elementary	0.2347 [0.0822]***	0.1608 [0.0715]**	0.2011 [0.0824]**	0.1485 [0.0717]**	0.1482 [0.0716]**	0.1472 [0.0718]**	0.1454 [0.0718]**	0.1250 [0.0759]	0.1245 [0.0764]	0.1344 [0.0711]*	0.1367 [0.0735]*	0.0586 [0.0685]
	secondary	0.5142 [0.0850]***	0.3037 [0.0753]***	0.4360 [0.0864]***	0.2748 [0.0765]***	0.2761 [0.0765]***	0.2684 [0.0769]***	0.2719 [0.0770]***	0.2483 [0.0825]***	0.2390 [0.0838]***	0.2337 [0.0767]***	0.2316 [0.0799]***	0.1257 [0.0761]*
	technical secondary	0.6008 [0.1011]***	0.3876 [0.0905]***	0.5082 [0.1033]***	0.3542 [0.0926]***	0.3542 [0.0926]***	0.3441 [0.0937]***	0.3475 [0.0939]***	0.3276 [0.0983]***	0.3002 [0.1002]***	0.2740 [0.0946]***	0.2759 [0.0978]***	0.2039 [0.0942]**
	high school +	0.5879 [0.0920]***	0.3758 [0.0834]***	0.4775 [0.0946]***	0.3340 [0.0856]***	0.3354 [0.0857]***	0.3232 [0.0865]***	0.3217 [0.0869]***	0.3033 [0.0932]***	0.2853 [0.0952]***	0.2701 [0.0869]***	0.2682 [0.0915]***	0.1527 [0.0895]*
father's education													
	elementary	0.2257 [0.1077]**	0.1562 [0.0963]	0.2099 [0.1072]*	0.1512 [0.0963]	0.1469 [0.0960]	0.1494 [0.0963]	0.1476 [0.0964]	0.1742 [0.1023]*	0.1909 [0.1038]*	0.1605 [0.0959]*	0.1714 [0.1019]*	0.1386 [0.0982]
	secondary	0.4147 [0.1112]***	0.2608 [0.1002]***	0.3820 [0.1109]***	0.2497 [0.1002]**	0.2447 [0.1000]**	0.2471 [0.1002]**	0.2482 [0.1004]**	0.2820 [0.1064]***	0.2826 [0.1086]***	0.2327 [0.1004]**	0.2502 [0.1071]**	0.2212 [0.1043]**
	technical secondary	0.4217 [0.1444]***	0.2925 [0.1319]**	0.3944 [0.1435]***	0.2839 [0.1318]**	0.2698 [0.1321]**	0.2829 [0.1320]**	0.2792 [0.1324]**	0.2915 [0.1370]**	0.2686 [0.1422]*	0.2306 [0.1356]*	0.2426 [0.1406]*	0.1855 [0.1353]
	high school +	0.4129 [0.1156]***	0.2070 [0.1052]**	0.3711 [0.1152]***	0.1925 [0.1052]*	0.1819 [0.1053]*	0.1898 [0.1055]*	0.1809 [0.1057]*	0.2013 [0.1119]*	0.2032 [0.1145]*	0.1660 [0.1060]	0.1759 [0.1126]	0.1813 [0.1106]
	mother's age	0.0119 [0.0028]***	0.0125 [0.0026]***	0.0119 [0.0028]***	0.0125 [0.0026]***	0.0126 [0.0026]***	0.0127 [0.0026]***	0.0126 [0.0027]***	0.0152 [0.0026]***	0.0151 [0.0027]***	0.0118 [0.0026]***	0.0130 [0.0027]***	0.0112 [0.0026]***
	mother's height	-	0.0592 [0.0027]***	-	0.0586 [0.0027]***	0.0585 [0.0027]***	0.0582 [0.0027]***	0.0581 [0.0027]***	0.0586 [0.0027]***	0.0593 [0.0029]***	0.0585 [0.0029]***	0.0592 [0.0028]***	0.0478 [0.0030]***
Standarized Raven test (Dev. Over the mean)	mother's Z-scores	-	-	0.0813 [0.0189]***	0.0314 [0.0174]*	0.0295 [0.0178]*	0.0296 [0.0175]*	0.0292 [0.0175]*	0.0252 [0.0180]	0.0238 [0.0183]	0.0255 [0.0176]	0.0256 [0.0181]	0.0159 [0.0179]
	father's Z-scores	-	-	-	-	0.0058 [0.0178]	-	-	-	-	-	-	-
HH Wealth													
	ln (total HH expenditure)	-	-	-	-	-	-	-	-	-	-	0.0435 [0.0245]*	0.0358 [0.0248]
	ln (total HH assets)	-	-	-	-	-	-	-	-	-	0.0265 [0.0070]***	-	-
mother background													
	grandmother's education	-	-	-	-	-	0.0105 [0.0070]	0.0097 [0.0070]	0.0076 [0.0072]	0.0061 [0.0074]	-	-	-
	grandfather's education	-	-	-	-	-	-0.0051 [0.0067]	-0.0036 [0.0067]	-0.0029 [0.0070]	-0.0035 [0.0072]	-	-	-
	grandmother living in HH	-	-	-	-	-	-	0.1035 [0.0636]	0.1202 [0.0682]*	0.1136 [0.0690]*	-	-	-
	grandfather living in HH	-	-	-	-	-	-	-0.1927 [0.0709]***	-0.1876 [0.0760]**	-0.1774 [0.0776]**	-	-	-
	lived in urban area from 0 to 12 years old	-	-	-	-	-	-	-	0.0664 [0.0374]*	0.0156 [0.0414]	-	-	-
Community characteristics													
	urban locality	-	-	-	-	-	-	-	-	0.1340 [0.0385]***	0.1343 [0.0338]***	0.1305 [0.0349]***	0.067 [0.3361]
	Observations	7015	7015	7015	7015	7015	7015	6988	6387	6227	6833	6554	6554
	R^2	0.0520	0.1450	0.0550	0.1460	0.1460	0.1460	0.1470	0.1490	0.1520	0.1510	0.1490	0.2

Source: MXFLS 1

TABLE 1C
Dependent Variable: Child's Weight for Age Z-Score   (children>= 10 years)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Parental characteristics													
mother's education													
	elementary	0.2112	0.1721	0.1814	0.1516	0.1514	0.1467	0.1459	0.1351	0.1235	0.1302	0.1380	0.0406
		[0.0512]***	[0.0479]***	[0.0518]***	[0.0486]***	[0.0486]***	[0.0486]***	[0.0486]***	[0.0504]***	[0.0510]**	[0.0487]***	[0.0496]***	[0.0498]
	secondary	0.4392	0.3224	0.3772	0.2805	0.2798	0.2671	0.2665	0.2432	0.2252	0.2368	0.2283	0.1126
		[0.0621]***	[0.0596]***	[0.0637]***	[0.0611]***	[0.0612]***	[0.0618]***	[0.0620]***	[0.0673]***	[0.0681]***	[0.0617]***	[0.0639]***	[0.0657]*
	technical secondary	0.4402	0.3291	0.3511	0.2674	0.2673	0.2451	0.2440	0.2118	0.1872	0.2021	0.1996	0.0923
		[0.0895]***	[0.0859]***	[0.0908]***	[0.0872]***	[0.0871]***	[0.0882]***	[0.0884]***	[0.0912]**	[0.0918]**	[0.0878]**	[0.0901]**	[0.0913]
	high school +	0.4529	0.3335	0.3650	0.2727	0.2734	0.2536	0.2497	0.2106	0.1988	0.2239	0.2268	0.0996
		[0.0768]***	[0.0736]***	[0.0790]***	[0.0757]***	[0.0757]***	[0.0771]***	[0.0768]***	[0.0834]**	[0.0849]**	[0.0765]***	[0.0814]***	[0.0824]
father's education													
	elementary	0.0697	0.0495	0.0465	0.0332	0.0308	0.0307	0.0291	0.0345	0.0410	0.0376	0.0417	0.0607
		[0.0634]	[0.0603]	[0.0636]	[0.0605]	[0.0606]	[0.0604]	[0.0605]	[0.0633]	[0.0636]	[0.0605]	[0.0614]	[0.0597]
	secondary	0.1567	0.1249	0.1260	0.1034	0.0984	0.0964	0.0937	0.0967	0.0913	0.0874	0.0926	0.0922
		[0.0722]**	[0.0691]*	[0.0723]*	[0.0693]	[0.0696]	[0.0695]	[0.0696]	[0.0740]	[0.0747]	[0.0700]	[0.0720]	[0.0709]
	technical secondary	0.0494	0.0313	0.0106	0.0037	-0.0040	-0.0031	-0.0023	-0.0169	-0.0363	-0.0423	-0.0441	-0.0671
		[0.1330]	[0.1251]	[0.1329]	[0.1251]	[0.1255]	[0.1244]	[0.1247]	[0.1318]	[0.1361]	[0.1295]	[0.1296]	[0.1346]
	high school +	0.2906	0.2283	0.2504	0.2008	0.1912	0.1897	0.1933	0.2151	0.2162	0.1760	0.1979	0.2089
		[0.0855]***	[0.0831]***	[0.0855]***	[0.0832]**	[0.0842]**	[0.0834]**	[0.0836]**	[0.0914]**	[0.0920]**	[0.0837]**	[0.0879]**	[0.0867]**
	mother's age	0.0087	0.0106	0.0087	0.0106	0.0106	0.0108	0.0109	0.0111	0.0111	0.0097	0.0101	0.0092
		[0.0024]***	[0.0023]***	[0.0024]***	[0.0023]***	[0.0023]***	[0.0023]***	[0.0023]***	[0.0025]***	[0.0025]***	[0.0023]***	[0.0024]***	[0.0024]***
	mother's height	-	0.0337	-	0.0328	0.0328	0.0325	0.0325	0.0340	0.0335	0.0319	0.0318	0.0232
			[0.0024]***		[0.0024]***	[0.0024]***	[0.0024]***	[0.0024]***	[0.0025]***	[0.0025]***	[0.0024]***	[0.0025]***	[0.0028]***
Standarized Raven test (Dev. Over the mean)	mother's Z-scores	-	-	0.0820	0.0598	0.0575	0.0575	0.0581	0.0556	0.0547	0.0541	0.0452	0.0343
				[0.0165]***	[0.0160]***	[0.0165]***	[0.0161]***	[0.0162]***	[0.0166]***	[0.0168]***	[0.0162]***	[0.0165]***	[0.0169]**
	father's Z-scores	-	-	-	-	0.0096	-	-	-	-	-	-	-
						[0.0167]							
HH Wealth													
	ln (total HH expenditure)	-	-	-	-	-	-	-	-	-	-	0.0843	0.0587
												[0.0222]***	[0.0230]**
	ln (total HH assets)	-	-	-	-	-	-	-	-	-	0.0250	-	-
											[0.0064]***		
mother background													
	grandmother's education	-	-	-	-	-	0.0086	0.0081	0.0050	0.0031	-	-	-
							[0.0080]	[0.0080]	[0.0083]	[0.0083]			
	grandfather's education	-	-	-	-	-	0.003	0.0030	0.0008	-0.0006	-	-	-
							[0.0077]	[0.0078]	[0.0080]	[0.0081]			
	grandmother living in HH	-	-	-	-	-	-	0.0309	0.0342	0.0512	-	-	-
								[0.0778]	[0.0849]	[0.0847]			
	grandfather living in HH	-	-	-	-	-	-	0.0825	0.0971	0.0769	-	-	-
								[0.1046]	[0.1149]	[0.1150]			
	lived in urban area from 0 to 12 years old	-	-	-	-	-	-	-	0.1179	0.0839	-	-	-
									[0.0432]***	[0.0451]*			
Community characteristics													
	urban locality	-	-	-	-	-	-	-	-	0.1212	0.1327	0.1110	0.0086
										[0.0349]***	[0.0320]***	[0.0335]***	[0.2045]
	Observations	6586	6586	6586	6586	6586	6586	6565	5964	5837	6448	6092	6092
	R²	0.0440	0.0810	0.0490	0.0830	0.0830	0.0840	0.0840	0.0900	0.0930	0.0890	0.0900	0.142

Source: MXFLS 1

TABLE 2C
Dependent Variable: Child's Height for Age Z-Score   (children>= 10 years)

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Parental characteristics													
mother's education													
	elementary	0.2037 [0.0511]***	0.1332 [0.0424]***	0.1721 [0.0515]***	0.1181 [0.0429]***	0.1194 [0.0430]***	0.1145 [0.0430]***	0.1131 [0.0430]***	0.1170 [0.0442]***	0.1139 [0.0448]**	0.1103 [0.0433]**	0.1140 [0.0441]***	0.054 [0.0434]
	secondary	0.4453 [0.0587]***	0.2326 [0.0496]***	0.3795 [0.0599]***	0.2016 [0.0510]***	0.2007 [0.0511]***	0.1900 [0.0521]***	0.1896 [0.0522]***	0.1908 [0.0562]***	0.1813 [0.0569]***	0.1791 [0.0518]***	0.1705 [0.0539]***	0.1099 [0.0550]**
	technical secondary	0.3577 [0.0776]***	0.1575 [0.0651]**	0.2646 [0.0785]***	0.1115 [0.0663]*	0.1133 [0.0665]*	0.0942 [0.0685]	0.0942 [0.0686]	0.0928 [0.0712]	0.0823 [0.0721]	0.0814 [0.0678]	0.0872 [0.0687]	0.0502 [0.0707]
	high school +	0.5718 [0.0717]***	0.3535 [0.0628]***	0.4783 [0.0732]***	0.3085 [0.0643]***	0.3075 [0.0641]***	0.2936 [0.0656]***	0.2908 [0.0655]***	0.2798 [0.0703]***	0.2793 [0.0714]***	0.2906 [0.0651]***	0.2947 [0.0685]***	0.2293 [0.0678]***
father's education													
	elementary	0.1046 [0.0640]	0.0677 [0.0546]	0.0800 [0.0641]	0.0555 [0.0547]	0.0554 [0.0552]	0.0542 [0.0545]	0.0523 [0.0546]	0.0617 [0.0574]	0.0542 [0.0583]	0.0481 [0.0553]	0.0454 [0.0568]	0.0733 [0.0536]
	secondary	0.2641 [0.0709]***	0.2040 [0.0607]***	0.2308 [0.0708]***	0.1879 [0.0606]***	0.1819 [0.0615]***	0.1822 [0.0605]***	0.1830 [0.0606]***	0.1852 [0.0645]***	0.1726 [0.0655]***	0.1710 [0.0614]***	0.1681 [0.0638]***	0.1956 [0.0611]***
	technical secondary	0.1915 [0.1219]	0.1586 [0.1078]	0.1499 [0.1213]	0.1381 [0.1072]	0.1444 [0.1079]	0.1350 [0.1068]	0.1333 [0.1068]	0.1211 [0.1121]	0.1137 [0.1140]	0.1205 [0.1091]	0.1142 [0.1104]	0.144 [0.1099]
	high school +	0.2754 [0.0801]***	0.1612 [0.0697]**	0.2322 [0.0803]***	0.1409 [0.0697]**	0.1361 [0.0706]*	0.1316 [0.0697]*	0.1268 [0.0698]*	0.1359 [0.0763]*	0.1370 [0.0778]*	0.1307 [0.0710]*	0.1274 [0.0742]*	0.1729 [0.0726]**
	mother's age	0.0069 [0.0024]***	0.0103 [0.0021]***	0.0069 [0.0024]***	0.0103 [0.0021]***	0.0103 [0.0021]***	0.0105 [0.0021]***	0.0104 [0.0022]***	0.0119 [0.0023]***	0.0116 [0.0024]***	0.0096 [0.0022]***	0.0099 [0.0023]***	0.0094 [0.0022]***
	mother's height	-	0.0617 [0.0023]***	-	0.0610 [0.0023]***	0.0610 [0.0023]***	0.0607 [0.0023]***	0.0607 [0.0023]***	0.0617 [0.0024]***	0.0613 [0.0024]***	0.0604 [0.0023]***	0.0606 [0.0024]***	0.0474 [0.0026]***
Standarized Raven test (Dev. Over the mean)	mother's Z-scores	-	-	0.0860 [0.0154]***	0.0446 [0.0136]***	0.0427 [0.0139]***	0.0425 [0.0137]***	0.0436 [0.0137]***	0.0442 [0.0142]***	0.0451 [0.0144]***	0.0433 [0.0139]***	0.0404 [0.0140]***	0.0258 [0.0143]*
	father's Z-scores	-	-	-	-	0.0093 [0.0143]	-	-	-	-	-	-	-
HH Wealth													
	ln (total HH expenditure)	-	-	-	-	-	-	-	-	-	-	0.0411 [0.0206]**	-0.0076 [0.0205]
	ln (total HH assets)	-	-	-	-	-	-	-	-	-	0.0121 [0.0064]*	-	-
mother background													
	grandmother's education	-	-	-	-	-	0.0114 [0.0067]*	0.0108 [0.0067]	0.0096 [0.0069]	0.0091 [0.0071]	-	-	-
	grandfather's education	-	-	-	-	-	-0.0015 [0.0066]	-0.0009 [0.0066]	-0.0016 [0.0068]	-0.0017 [0.0070]	-	-	-
	grandmother living in HH	-	-	-	-	-	-	-0.0175 [0.0598]	-0.0100 [0.0638]	-0.0021 [0.0644]	-	-	-
	grandfather living in HH	-	-	-	-	-	-	0.0491 [0.0811]	0.0552 [0.0887]	0.0469 [0.0893]	-	-	-
	lived in urban area from 0 to 12 years old	-	-	-	-	-	-	-	0.0530 [0.0358]	0.0390 [0.0381]	-	-	-
Community characteristics													
	urban locality	-	-	-	-	-	-	-	-	0.0391 [0.0309]	0.0491 [0.0278]*	0.0404 [0.0291]	0.4314 [0.1885]**
	Observations	6586	6586	6586	6586	6586	6586	6565	5964	5837	6448	6092	6092
	R²	0.1240	0.2590	0.1300	0.2610	0.2610	0.2610	0.2620	0.2640	0.2620	0.2600	0.2580	0.318

Source: MXFLS 1

TABLE
DESCRIPTIVE STATISTICS ON MAIN VARIABLES
ALL AGES

	RURAL				URBAN			
	BOYS		**GIRLS**		**BOYS**		**GIRLS**	
	Mean	**St.Dev**	**Mean**	**St.Dev**	**Mean**	**St.Dev**	**Mean**	**St.Dev**
Weight-for-Age Z-score								
child is less than 3 years	0.505	(1.376)	0.417	(1.346)	0.224	(1.314)	0.245	(1.469)
" 4-6 "	0.312	(1.258)	0.140	(1.154)	0.133	(1.195)	0.084	(1.195)
" 7-10 "	0.070	(1.247)	0.179	(1.122)	0.235	(1.287)	0.316	(1.225)
" 11-15 "	0.224	(1.140)	0.133	(1.056)	0.137	(1.187)	0.122	(1.108)
" 16-18 "	0.435	(0.862)	0.351	(0.943)	0.308	(0.822)	0.235	(0.855)
Num of observarions (children)	2820	-	2839	-	3953	-	3918	-
Height-for-Age Z-score								
child is less than 3 years	0.770	(1.415)	0.656	(1.338)	0.600	(1.353)	0.512	(1.251)
" 4-6 "	0.763	(1.213)	0.645	(1.289)	0.554	(1.102)	0.298	(1.155)
" 7-10 "	0.684	(1.177)	0.679	(1.157)	0.378	(1.057)	0.255	(0.991)
" 11-15 "	0.792	(1.074)	0.964	(1.057)	0.538	(0.967)	0.714	(1.019)
" 16-18 "	1.395	(0.904)	1.254	(0.868)	1.308	(0.884)	1.132	(0.814)
Num of observarions (children)	2820	-	2839	-	3953	-	3918	-

Source: MXFLS 1

DESCRIPTIVE STATISTICS

		mean	St. Dev
Child's characteristics			
age			
	7 months to 3 years	0.188	(0.391)
	4 to 6 years	0.156	(0.363)
	7 to 9 years	0.167	(0.373)
	10 to 12 years	0.174	(0.380)
	13 to 15 years	0.168	(0.374)
	16 to 18 years	0.140	(0.346)
	male	0.502	(0.500)
Parental characteristics			
	mother's age	35.594	(8.402)
	father's age	39.347	(8.679)
mother's education			
	illiterate	0.092	(0.288)
	elementary	0.477	(0.500)
	secondary	0.233	(0.423)
	technical secondary	0.056	(0.230)
	high school +	0.142	(0.349)
father's education			
	illiterate	0.061	(0.239)
	elementary	0.372	(0.483)
	secondary	0.376	(0.484)
	technical secondary	0.020	(0.140)
	high school +	0.171	(0.377)
	mother's height	153.147	(6.511)
	father's height	165.464	(5.812)
% correct in Raven test			
	mother's results	44.097	(23.170)
	father's results	48.664	(19.772)
Parent in HH			
	mother	0.980	(0.139)
	father	0.805	(0.396)
	both	0.792	(0.406)
HH characteristics			
Monthly HH total expenditure	total expenditure ($000s)	5.194	(5.119)
	ln (total expenditure)	8.237	(0.775)
Value of HH assets			
	total assets ($000s)	72.526	(98.208)
	ln (total assets)	10.191	(2.149)
Dwelling			
	electricity	0.985	(0.123)
	telephone	0.322	(0.467)
	concrete ceiling & walls	0.525	(0.499)
	toilet (WC)	0.672	(0.470)
Mother background characteristics			
Child's grandparents			
	grandmother's education	2.330	(2.544)
	grandfather's education	2.652	(2.630)
	grandmother living in HH	0.087	(0.282)
	grandfather living in HH	0.050	(0.219)
	mother lived in urban area from 0 to 12 years old	0.249	(0.432)
Community characteristics	urban locality	0.581	(0.493)

number of observations: 14142
Source: MXFLS 1

TABLE A1
DESCRIPTIVE STATISTICS ON MAIN VARIABLES
SAMPLE OF CHILDREN 5 YEARS OLD OR YOUNGER

	RURAL				URBAN			
	BOYS		GIRLS		BOYS		GIR	
	Mean	St.Dev	Mean	St.Dev	Mean	St.Dev	Mean	
Weight-for-Age Z-score								
child less than 6 months old	0.149	(1.263)	0.157	(0.996)	0.527	(1.189)	0.538	
" 6-11 "	0.326	(1.530)	0.229	(1.247)	0.095	(1.564)	0.044	
" 12-17 "	0.573	(1.226)	0.509	(1.259)	0.356	(0.848)	0.349	
" 18-23 "	1.234	(1.597)	0.749	(1.760)	0.854	(1.673)	0.941	
" 24-35 "	0.492	(1.223)	0.496	(1.200)	0.177	(1.162)	0.174	
" 36-47 "	0.160	(1.253)	0.388	(1.320)	0.148	(1.167)	0.119	
" 48-60 "	0.329	(1.100)	0.330	(0.963)	0.275	(1.044)	0.014	
Num of observations (children)	670	-	700	-	1035	-	1046	
Height-for-Age Z-score								
child less than 6 months old	0.714	(1.312)	0.736	(1.322)	0.339	(1.011)	0.537	
" 6-11 "	0.832	(1.307)	0.625	(1.140)	0.688	(1.425)	0.415	
" 12-17 "	0.714	(1.141)	0.691	(1.237)	0.739	(1.078)	0.764	
" 18-23 "	1.476	(1.616)	0.808	(1.382)	1.386	(1.596)	1.061	
" 24-35 "	0.612	(1.420)	0.585	(1.344)	0.211	(1.358)	0.203	
" 36-47 "	0.474	(1.383)	0.546	(1.428)	0.428	(1.157)	0.150	
" 48-60 "	0.700	(1.101)	0.789	(1.255)	0.611	(1.083)	0.403	
Num of observations (children)	670	-	700	-	1035	-	1046	
Weight-for-Height Z-score								
child is less than 6 months old	0.378	(1.164)	0.643	(1.024)	0.309	(1.202)	0.625	
" 6-11 "	0.021	(1.238)	0.362	(1.015)	0.067	(1.737)	0.153	
" 12-17 "	0.022	(1.275)	0.075	(1.426)	0.087	(0.967)	0.274	
" 18-23 "	0.012	(1.439)	0.192	(1.424)	0.352	(1.233)	0.161	
" 24-35 "	0.091	(0.995)	0.008	(0.921)	0.049	(0.992)	0.080	
" 36-47 "	0.213	(1.057)	0.159	(0.975)	0.193	(0.869)	0.132	
" 48-60 "	0.132	(1.095)	0.227	(0.989)	0.143	(0.950)	0.405	
Num of observations (children)	670	-	700	-	1035	-	1046	

Source: MXFLS 1

TABLE A2

		Height-for-Age Z-score		Weight-for-Age Z-score		Weight-for-Height Z-score	
		OLS	CFE	OLS	CFE	OLS	CFE
child's range of age							
	6-11 months old	-0.1182	-0.1424	-0.4287	-0.4509	-0.3495	-0.3771
		[0.1291]	[0.1315]	[0.1428]***	[0.1403]***	[0.1296]***	[0.1310]***
	12-17 months old	-0.2144	-0.2157	-0.8463	-0.8533	-0.3436	-0.3318
		[0.0974]**	[0.0999]**	[0.0942]***	[0.0963]***	[0.0962]***	[0.0987]***
	18-23 months old	-0.6674	-0.6684	-1.3404	-1.329	-0.2551	-0.2528
		[0.1066]***	[0.1089]***	[0.1094]***	[0.1090]***	[0.0991]**	[0.1015]**
	24-35 months old	0.1464	0.1829	-0.7224	-0.688	-0.4358	-0.4353
		[0.0914]	[0.0925]**	[0.0831]***	[0.0851]***	[0.0799]***	[0.0840]***
	36-47 months old	0.0984	0.0873	-0.6443	-0.646	-0.306	-0.3132
		[0.0924]	[0.0936]	[0.0843]***	[0.0852]***	[0.0821]***	[0.0855]***
	48-60 months old	-0.1147	-0.1006	-0.6739	-0.6551	-0.2345	-0.2532
		[0.0880]	[0.0900]	[0.0794]***	[0.0816]***	[0.0799]***	[0.0845]***
	child's sex (male)	-0.0759	-0.0812	-0.0362	-0.0564	-0.0938	-0.1112
		[0.0436]*	[0.0439]*	[0.0434]	[0.0443]	[0.0385]**	[0.0396]***
Parental characteristics							
mother's education							
	elementary	0.135	0.0495	0.1478	0.0376	0.0939	0.0313
		[0.1075]	[0.1074]	[0.1076]	[0.1036]	[0.1082]	[0.1016]
	secondary	0.3023	0.1722	0.3356	0.1919	0.1508	0.0766
		[0.1157]***	[0.1180]	[0.1186]***	[0.1181]	[0.1148]	[0.1091]
	technical	0.3528	0.2702	0.2877	0.1768	0.1175	0.0026
		[0.1481]**	[0.1486]*	[0.1403]**	[0.1389]	[0.1373]	[0.1313]
	high school +	0.3311	0.2194	0.3784	0.2418	0.1912	0.1269
		[0.1318]**	[0.1348]	[0.1317]***	[0.1327]*	[0.1285]	[0.1264]
	mother's age	0.0127	0.0121	0.0124	0.0127	0.003	0.0051
		[0.0040]***	[0.0040]***	[0.0036]***	[0.0037]***	[0.0031]	[0.0032]
father's education							
	elementary	0.1271	0.1598	0.1035	0.1059	0.064	0.0421
		[0.1539]	[0.1405]	[0.1330]	[0.1340]	[0.1152]	[0.1157]
	secondary	0.2629	0.3008	0.1843	0.2044	0.1014	0.0653
		[0.1595]*	[0.1497]**	[0.1410]	[0.1437]	[0.1188]	[0.1204]
	technical	0.3253	0.3531	0.1824	0.1669	-0.1307	-0.2152
		[0.2075]	[0.1952]*	[0.1983]	[0.2050]	[0.1727]	[0.1807]
	high school +	0.192	0.2425	0.1095	0.1185	0.0144	-0.0129
		[0.1688]	[0.1611]	[0.1524]	[0.1555]	[0.1309]	[0.1325]
	mother at HH	-0.0818	-0.0768	-0.0942	-0.0601	-0.0483	-0.0463
		[0.1036]	[0.1101]	[0.1202]	[0.1238]	[0.1081]	[0.1120]
	father at HH	0.0453	0.0117	-0.0575	-0.1043	0.053	0.0383
		[0.0967]	[0.0976]	[0.0954]	[0.0986]	[0.0891]	[0.0929]
	ln (total HH expn)	0.0609	0.0727	0.0531	0.0485	0.0312	0.0153
		[0.0351]*	[0.0358]**	[0.0374]	[0.0393]	[0.0307]	[0.0315]
Community characteristics							
	total popullation	0	0	0	0	0	0
		[0.0000]***	[0.0000]	[0.0000]**	[0.0000]	[0.0000]	[0.0000]
	electricity	2.206	0	3.0435	0	0.6997	0
		[0.8556]***	[0.0000]	[0.7811]***	[0.0000]	[0.6692]	[0.0000]
	telephone	0.4164	0	0.4959	0	0.3582	0
		[0.2040]**	[0.0000]	[0.2062]**	[0.0000]	[0.1796]**	[0.0000]
	toilet (W.C)	0.082	0	0.0612	0	-0.0822	0
		[0.0708]	[0.0000]	[0.0710]	[0.0000]	[0.0630]	[0.0000]
Observations		3294	3294	3294	3294	3294	3294
R^2		0.088	0.161	0.106	0.179	0.025	0.081

TABLE A3
Fitted value of community fixed effects on community level observed characteristics

	H-for-A Z-score	W-for-A Z-score	W-for-H Z-score
total popullation	0	0	0
	[0.0000]	[0.0000]**	[0.0000]
electricity	0.5041	0.3877	0.1133
	[0.2162]**	[0.2474]	[0.1080]
telephone	0.2289	0.1556	0.0398
	[0.0502]***	[0.0602]***	[0.0265]
toilet (W.C)	0.1552	0.0825	-0.1027
	[0.0162]***	[0.0185]***	[0.0080]***
PROGRESA locality	-0.0073	-0.018	0.0017
	[0.0166]	[0.0184]	[0.0082]
Public health clinics in locality	0.0211	0.0352	0.0131
	[0.0368]	[0.0433]	[0.0188]
Public health hospitals in locality	-0.0689	-0.1438	-0.063
	[0.0425]	[0.0492]***	[0.0225]***
Midwives / town healers in locality	-0.0339	-0.0281	-0.0005
	[0.0245]	[0.0270]	[0.0114]
Private hospital/clinic in locality	0.0552	0.1025	0.052
	[0.0436]	[0.0523]*	[0.0238]**
distance to nearest public health clinic	-0.0017	-0.0023	-0.0003
	[0.0010]*	[0.0010]**	[0.0004]
distance to nearest public health hospital	-0.0041	0.0052	0.004
	[0.0069]	[0.0078]	[0.0033]
distance to nearest midwive/town healer	0.0142	0.0215	0
	[0.0124]	[0.0135]	[0.0064]
distance to nearest private clinic/hospital	0.0007	-0.0112	-0.0044
	[0.0133]	[0.0145]	[0.0071]
# of public health clinics in locality	-0.0032	-0.003	0.0009
	[0.0010]***	[0.0011]***	[0.0005]*
# of public health hospitals in locality	0.0105	0.0068	-0.0041
	[0.0034]***	[0.0036]*	[0.0017]**
# of midwives / town healers in locality	-0.0007	-0.0001	-0.0002
	[0.0005]	[0.0005]	[0.0002]
# private hospital/clinic in locality	-0.0005	-0.0015	-0.0009
	[0.0009]	[0.0010]	[0.0004]**

Investment in community infraestructure (last 5 years)

	H-for-A Z-score	W-for-A Z-score	W-for-H Z-score
Sewerage	-0.0146	0.0021	0.007
	[0.0176]	[0.0205]	[0.0089]
Drinking water	-0.033	-0.0269	-0.007
	[0.0193]*	[0.0219]	[0.0091]
Health Services	0.0547	0.0478	0.0073
	[0.0205]***	[0.0216]**	[0.0090]

Community Infraestructure

	H-for-A Z-score	W-for-A Z-score	W-for-H Z-score
Post Office	0.0579	0.0218	-0.0042
	[0.0228]**	[0.0262]	[0.0112]
distance to nearest post office	-0.0021	-0.0015	-0.0002
	[0.0008]***	[0.0010]	[0.0004]
Library	-0.0432	-0.0353	-0.0084
	[0.0226]*	[0.0256]	[0.0115]
distance to nearest library	0.0014	0.0002	-0.0005
	[0.0017]	[0.0018]	[0.0007]
Museum	0.0043	0.0322	0.0231
	[0.0261]	[0.0284]	[0.0120]*
distance to nearest museum	-0.0001	0.0004	0.0004
	[0.0004]	[0.0004]	[0.0002]**
Observations	3313	3313	3313
R-squared	0.148	0.042	0.113

TABLE A4

child's range of age		Height-for-Age Z-score		Weight-for-Age Z-score		Weight-for-Height Z-score	
		OLS	CFE	OLS	CFE	OLS	CFE
	6-11 months old	-0.1149	-0.1366	-0.426	-0.4462	-0.3527	-0.3721
		[0.1288]	[0.1318]	[0.1424]***	[0.1413]***	[0.1287]***	[0.1311]***
	12-17 months old	-0.2149	-0.2113	-0.8401	-0.8475	-0.3459	-0.331
		[0.0973]**	[0.0995]**	[0.0947]***	[0.0968]***	[0.0964]***	[0.0992]***
	18-23 months old	-0.6677	-0.667	-1.3376	-1.3208	-0.2606	-0.2508
		[0.1058]***	[0.1085]***	[0.1086]***	[0.1091]***	[0.0985]***	[0.1016]**
	24-35 months old	0.1499	0.183	-0.7207	-0.6838	-0.4425	-0.4349
		[0.0912]	[0.0922]**	[0.0830]***	[0.0855]***	[0.0797]***	[0.0837]***
	36-47 months old	0.0944	0.0839	-0.6432	-0.6422	-0.3093	-0.3101
		[0.0925]	[0.0936]	[0.0842]***	[0.0857]***	[0.0822]***	[0.0854]***
	48-60 months old	-0.1139	-0.1028	-0.672	-0.6511	-0.2376	-0.2492
		[0.0878]	[0.0898]	[0.0790]***	[0.0817]***	[0.0797]***	[0.0843]***
	child's sex (male)	-0.0733	-0.0798	-0.0342	-0.0556	-0.0917	-0.1119
		[0.0433]*	[0.0438]*	[0.0433]	[0.0443]	[0.0383]**	[0.0395]***
Parental characteristics							
mother's education							
	elementary	0.2844	-0.2571	-0.0555	-0.5196	-0.1054	-0.0398
		[1.0216]	[1.0194]	[1.1063]	[1.0767]	[0.3796]	[0.3426]
	secondary	1.8331	0.7144	1.0786	-0.2245	0.2747	0.4118
		[1.2004]	[1.2364]	[1.3426]	[1.3607]	[0.4256]	[0.3976]
	technical	4.6328	3.6969	2.2269	-0.0862	-0.2216	-0.154
		[1.9918]**	[2.0132]*	[2.2052]	[2.2811]	[0.5374]	[0.5407]
	high school +	1.2484	0.7081	0.9235	-1.4828	0.2454	0.3932
		[1.5388]	[1.6076]	[1.8943]	[2.0785]	[0.4858]	[0.4917]
	mother's age	-0.0483	-0.0544	-0.0826	-0.0737	0.0136	0.0174
		[0.0442]	[0.0441]	[0.0427]*	[0.0443]*	[0.0132]	[0.0137]
father's education							
	elementary	0.5087	0.4908	0.011	0.5633	0.4672	0.5938
		[1.4547]	[1.2217]	[1.2061]	[1.1654]	[0.4028]	[0.3851]
	secondary	0.3306	0.9102	0.0874	0.7796	0.4452	0.5656
		[1.5152]	[1.3460]	[1.3696]	[1.3966]	[0.4386]	[0.4372]
	technical	3.3592	3.4694	1.9717	3.1448	0.0115	0.2196
		[3.0264]	[2.5727]	[3.4458]	[3.2857]	[0.7561]	[0.8084]
	high school +	1.1523	0.911	1.7915	1.9885	0.707	0.9569
		[1.6801]	[1.5295]	[1.5743]	[1.5834]	[0.4894]	[0.4885]*
	mother at HH	2.7855	3.3634	-1.0991	-0.7207	-0.7759	-0.8593
		[1.2944]**	[1.4133]**	[2.3467]	[2.4779]	[0.5211]	[0.5117]*
	father at HH	0.2533	0.2136	0.2657	0.4099	0.3187	0.232
		[0.7575]	[0.7570]	[0.9029]	[0.9242]	[0.2537]	[0.2565]
	ln (total HH expn)	0.1211	0.4537	0.1222	0.1072	-0.0208	-0.0309
		[0.4249]	[0.4620]	[0.4787]	[0.5808]	[0.1323]	[0.1442]
	index	1.03	0	0.3129	0	1.8868	0
		[1.8503]	[0.0000]	[1.4137]	[0.0000]	[3.2215]	[0.0000]
	index & mother's elementary	-0.1043	0.1443	0.0609	0.2059	0.5526	0.1893
		[0.5183]	[0.5187]	[0.4290]	[0.4159]	[1.1436]	[1.0249]
	index & mother's secondary	-0.7706	-0.263	-0.2849	0.1555	-0.3473	-0.933
		[0.5992]	[0.6181]	[0.5098]	[0.5150]	[1.2314]	[1.1400]
	index & technical	-2.0502	-1.6098	-0.7044	0.1016	0.8638	0.3636
		[0.9523]**	[0.9644]*	[0.7961]	[0.8219]	[1.4509]	[1.4335]
	index & high school +	-0.4732	-0.2333	-0.2071	0.6243	-0.1499	-0.7268
		[0.7479]	[0.7804]	[0.6980]	[0.7594]	[1.3612]	[1.3440]
	index & mother's age	0.0299	0.0326	0.0351	0.0318	-0.0296	-0.0347
		[0.0210]	[0.0211]	[0.0157]**	[0.0163]*	[0.0362]	[0.0380]
	index & father's elementary	-0.2123	-0.176	0.0266	-0.1805	-1.193	-1.6621
		[0.7354]	[0.6209]	[0.4680]	[0.4534]	[1.1737]	[1.1070]
	index & father's secondary	-0.0628	-0.3097	0.0243	-0.2269	-1.064	-1.5597
		[0.7605]	[0.6741]	[0.5216]	[0.5297]	[1.2397]	[1.2258]
	index & father's technical	-1.4277	-1.4627	-0.6381	-1.0783	-0.5725	-1.4135
		[1.4347]	[1.2254]	[1.2233]	[1.1697]	[1.8334]	[1.9749]
	index & father's high school +	-0.4834	-0.337	-0.6091	-0.6913	-1.9463	-2.7567
		[0.8393]	[0.7625]	[0.5916]	[0.5934]	[1.3685]	[1.3591]**
	index & ln(total HH expn)	-0.0322	-0.1814	-0.0261	-0.0196	0.129	0.1109
		[0.2046]	[0.2235]	[0.1755]	[0.2123]	[0.3595]	[0.3938]
	index & mother at HH	-1.3281	-1.5949	0.358	0.2276	1.8339	2.0317
		[0.6110]**	[0.6653]**	[0.8227]	[0.8660]	[1.2889]	[1.2636]
	index & father at HH	-0.1031	-0.0968	-0.1197	-0.185	-0.6987	-0.5227
		[0.3593]	[0.3593]	[0.3212]	[0.3267]	[0.6216]	[0.6242]
	Observations	3294	3294	3294	3294	3294	3294
	R-squared	0.096	0.166	0.11	0.181	0.027	0.084

	H-for-A Z-score	W-for-A Z-score	W-for-H Z-score
total popullation	0	0	0
	[0.0000]***	[0.0000]***	[0.0000]***
electricity	-0.4258	2.4534	-0.4087
	[0.2614]	[0.2716]***	[0.1313]***
telephone	-0.2317	0.4443	-0.6524
	[0.0541]***	[0.0644]***	[0.0306]***
toilet (W.C)	-0.0383	0.1498	-0.074
	[0.0351]	[0.0374]***	[0.0185]***
PROGRESA locality	0.1174	-0.0711	-0.0467
	[0.0178]***	[0.0191]***	[0.0089]***
Public health clinics in locality	0.0001	-0.0792	0.3781
	[0.0389]	[0.0437]*	[0.0211]***
Public health hospitals in locality	-0.075	-0.1183	-0.2836
	[0.0469]	[0.0509]**	[0.0254]***
Midwives / town healers in locality	-0.0125	-0.0321	-0.0434
	[0.0266]	[0.0276]	[0.0137]***
Private hospital/clinic in locality	-0.0781	0.1181	0.4188
	[0.0480]	[0.0535]**	[0.0267]***
distance to nearest public health clinic	-0.001	-0.0019	0.0008
	[0.0010]	[0.0011]*	[0.0005]
distance to nearest public health hospital	0.003	0.0085	0.0005
	[0.0075]	[0.0085]	[0.0037]
distance to nearest midwive/town healer	0.0046	0.0147	-0.0133
	[0.0132]	[0.0148]	[0.0067]**
distance to nearest private clinic/hospital	-0.0193	-0.0147	-0.0016
	[0.0139]	[0.0153]	[0.0071]
# of public health clinics in locality	-0.0029	-0.0026	0.0013
	[0.0011]***	[0.0011]**	[0.0005]***
# of public health hospitals in locality	0.0072	0.0049	-0.0071
	[0.0041]*	[0.0039]	[0.0017]***
# of midwives / town healers in locality	0.0001	0.0001	-0.0005
	[0.0005]	[0.0006]	[0.0003]*
# private hospital/clinic in locality	-0.0002	-0.0012	-0.0003
	[0.0009]	[0.0010]	[0.0004]
Investment in community infraestructure (last 5 years Sewerage	-0.0167	0.0086	0.0114
	[0.0194]	[0.0209]	[0.0101]
Drinking water	-0.0248	-0.023	-0.0179
	[0.0208]	[0.0223]	[0.0101]*
Health Services	0.068	0.0587	0.018
	[0.0223]***	[0.0223]***	[0.0106]*
Community Infraestructure			
Post Office	0.0597	0.0277	-0.0235
	[0.0248]**	[0.0264]	[0.0127]*
distance to nearest post office	-0.0007	-0.0016	0.0003
	[0.0009]	[0.0011]	[0.0005]
Library	-0.0183	-0.0301	-0.0029
	[0.0243]	[0.0261]	[0.0128]
distance to nearest library	0.0019	0.0008	0.0003
	[0.0019]	[0.0018]	[0.0008]
Museum	0.0013	0.0278	0.0186
	[0.0277]	[0.0295]	[0.0132]
distance to nearest museum	-0.0002	0.0004	-0.0001
	[0.0004]	[0.0005]	[0.0002]
Observations	3313	3313	3313
R-squared	0.151	0.221	0.561