Child Health in Rural Colombia: Determinants and Policy Interventions

Orazio Attanasio
Luis Carlo Gomez
Ana Gomez
Marcos Vera-Hernández

EDePo

Centre for the Evaluation of Development Policies

THE INSTITUTE FOR FISCAL STUDIES
EWP04/02

Child Health in Rural Colombia: Determinants and Policy Interventions[1]

Orazio Attanasio[2,3]

Luis Carlos Gomez[4]

Ana Gomez[5]

Marcos Vera-Hernández[2]

Final version presented to the Interamerican Development Bank on the study of Child Health, Poverty and the Role of Social Policies

Abstract

In this paper we study the determinants of child anthropometrics on a sample of poor Colombian children living in small municipalities. We focus on the influence of household consumption, and public infrastructure. We take into account the endogeneity of household consumption using two different sets of instruments: household assets and municipality average wage. We find that household consumption is an important determinant of child health. The importance of the effect is confirmed by the two different sets of instruments. We find that using ordinary least squares would lead to conclude that the importance of household consumption is much smaller than the instrumental variable estimates suggest. The presence of a public hospital in the municipality positively influences child health. The extent of the piped water network positively influences the health of children if their parents have at least some education. The number of hours of growth and development check-ups is also an important determinant of child health. We find that some of these results only show up once squared and interaction terms have been included in the regression. Overall, our estimates suggest that both public and private investments are important to improve child health in poor environments.

[1] We would like to thank the participants in the IADB project on Child Health, Poverty and the Role of Social Policies for the comments received in the meetings held in Puebla and Washington. In particular, we would like to thank Jere Behrman, Sebastian Galiani, Ernesto Schargrodsy, and Emmanuel Skoufias for discussing our paper and provide us with useful comments. We would also like to thank Marisol Rodriguez for her help in editing the document. We thank the Colombian Department of National Planning for allowing us to use the Publicly Available Familias en Accion Database for this paper, as well as the Enviormmental Ministry for providing us with data on the coverage of the piped network in Colombia.

[2] University College London. Economics Department. Gower St. London WC1E 6BT. Tel +442076795880. E-mail: o.attanasio@ucl.ac.uk

[3] Institute For Fiscal Studies. 7 Ridgmount St. London WC1E 7AE. UK. Tel. +442072914800. E-mail: marcos.vera@ifs.org.uk

[4] Econometria Consultores. Calle 94A No 13-59 5th floor. E-mail: lcgomez@econometriaconsultores.com

[5] Econometria Consultores. Calle 94A No 13-59 5th floor. E-mail: anagomez@econometriaconsultores.com

1. Introduction

Malnutrition is a very serious problem in developing countries. According to Onis *et al.* (2000) about one third of less than five years old children are stunted in growth. There is evidence that inadequate nutrition in childhood affects long term physical development (Martorell and Habicht, 1986, Barker, 1990), as well as the development of cognitive skills (Brown and Pollitt, 1996 and Balazs et al 1986) and educational attainment (Behrman, 1996, Strauss and Thomas 1995). This in turn affects productivity later in life (Dasgupta 1993, Strauss and Thomas 1998, and Schultz 1999). The main aim of this study is modelling some of the main determinants of child health in Colombia, where the positive influence of health on wages has also been documented (Ribero, 1999).

The purpose of this paper is to understand the determinants of child health. In particular, we will focus on the influence of household consumption and public infrastructure on child health. This would inform policy makers when setting priorities among different interventions. It is important to understand whether different policies are substitutes or complements. Poverty and low education could cause bottlenecks, not allowing other public policies to influence child health. If this is the case, an effective policy aimed at improving child health might need to be complemented with different interventions. Moreover, policy interventions do not necessarily have a homogenous impact across the population. Some, maybe the lowest educated, might not benefit from certain programs. To uncover these types of interactions would help a better targeting of programs that aim at improving child health. Finally, it is also worth considering that different policies manifest their effect over different horizons. If one finds that mother's education is crucial for children health and possibly for the effectiveness of other interventions, such as those aimed at developing health infrastructure, one could not hope to have results in the very short run. However, such results would constitute a further reason and justification for education interventions. On the contrary, if one were to find that health and other basic infrastructure was important per-se and for the whole poor population, then one might want to concentrate resources there and hope for results even in the short run. These considerations should be important in any cost-benefit analysis.

Malnutrition and child health should be directly related to household's resources in general, and household consumption in particular. More affluent households can provide their children with more and better nutrients. Medicines and visits to doctors might not be affordable for the poorest. While theoretically this seems a clear relation, its quantification remains important to understand how different policies will help child health as well as to study the relative merit of some policies (for instance, cash transfers) relative to others policy instruments.

In this paper we are particularly interested in how public infrastructure influences child health. Access to sanitary and health care infrastructure is another likely determinant of child health. There is evidence that increasing the provision of basic health services (birth services, availability of drugs, immunizations) improves considerable child health (Thomas et al 1996 and Lavy et al 1996). Wolfe and Behrman (1982) find evidence that access to refrigeration and good quality sewage systems positively influence child health. There is evidence that child height is positively affected by access to infrastructure such as sewage, piped water and sanitation (Lavy *et al.* 1996, Thomas and Strauss 1992 and Jalan and Ravallion 2003).

Quality of health care has received recent attention as a determinant of child health. Barber and Gertler (2001) conclude that in Indonesia children who live in communities with high quality care are healthier compared with children who live in areas with poor quality. Peabody et al (1998) showed that Jamaican women with access to high quality prenatal care have higher birth weights than women with access to poor quality care. It is clear, however, that to establish causal relationships between access and/or quality care and child health is extremely difficult. Better doctors might prefer to stay in towns with higher income and quality of life what makes obtaining casual relationships very difficult.

Conditional transfer programs have been shown to improve child health. PROGRESA, for instance, where nutritional supplements were linked to the participation in various educational programs, has had a significant impact on increasing child growth and in reducing the probability of child stunting. However, it is unclear if this improvement is because more resources are available to the household, or because the program improves the access of the household to health care facilities (Skoufias, 2001). More importantly, it is not completely obvious what is the role played by the conditionality.

For the purpose of this study, it is of particular interest to determine how education interacts with other factors and policies in explaining child health. Jalan and Ravallion (2003) find that child health from poorest and lowest educated households in India do not significantly improve by having piped water at home. However, this is not the case for children from more educated households. Wolfe and

Behrman (1982) find that child health and nutrition are positively associated with schooling, except in low-income rural areas. These references suggest the existence of bottlenecks that need to be addressed: low education does not allow other interventions to improve health care (as in Jalan and Ravallion, 2003) or poverty does not allow education to improve child health (as in Wolfe and Behrman, 1982).

The paper is organized as follows: Section 2 outlines the basic methodology followed in the paper, Section 3 describe the sampling scheme while Section 4 describes the data and comments on the main variables of the analysis. Section 5 comments the results and finally Section 6 concludes.

2. The Methodology

We will use a regression framework in order to estimate the relation between child health and its determinants: consumption, background variables including household education and community level variables. Child health will be measured according to four anthropometric indicators: height for age, weight for age, height for age and leg-length for age. For each anthropometric indicator, we estimate the following regression:

$$H_i = \beta_0 + \beta_1 X_i + \beta_2 X_{hi} + \beta_3 \ln C_{hi} + \beta_4 X_{ci} + \varepsilon_{ci} + \varepsilon_i ,$$

where H_i is i^{th}-child's anthropometric indicator, X_i refers to a polynomial in gender and age in months for the i^{th}-child, X_{hi} to i^{th}-child's household level variables including head of household and mother's education, C_{hi} is i^{th}-child's household consumption, X_{ci} as i^{th}-child's community variables including the presence of a hospital or access to piped water.

The error terms ε_{ci} represents omitted community variables and ε_i represents an error term that includes omitted variables at the individual and household level.

We will try to take into account that behavioral responses can cause a negative correlation between C_{hi} and the error term ε_i. Parents might increase household consumption in response to a negative shock in child health. This might occur not only for directly health related expenses as payments to doctors and medicines, but also in food consumption or any other input of a health production function. This negative correlation will downplay the role of household consumption in health, as the data will contain children with low health but relatively high household consumption. In econometric terminology, we will say that household consumption is likely to be endogenous. We do not believe that limited definitions of household consumption, i.e. household consumption excluding health related consumption, will solve this possible endogeneity. The household might substitute consumption across different categories in response to an illness shock. For instance, they might reduce leisure consumption to pay for health related expenses. Moreover, a health care professional might recommend increasing the consumption of nutrient rich food to improve child's nutritional status.

Instrumental variables techniques are required to solve the possible endogeneity of household consumption. The most difficult task is to find a valid instrument for the regression above. The literature on demand systems typically uses income to instrument consumption. If preferences are separable between consumption and leisure, total consumption but not income is relevant to decide on the good shares. However, there are several reasons why household income might not be a valid instrument. Households with a child in bad health might increase labor supply to save money for future health care expenses. Consequently, income would be negatively related to ε_i even after conditioning on total consumption. Families with children in bad health might receive transfers that can also produce a negative correlation between ε_i and household income. These arguments would prevent us from using household income as an instrument. We therefore try alternative identification strategies.

Attanasio and Lechene (2002) estimate Engel curves using municipality wage as an instrument for consumption. They find more reasonable results than when household income is used as an instrument. We follow them and use municipality wage as an instrument for total consumption. This obviously precludes the introduction of community fixed effects. In this case the main identification assumption is that municipality wage is not correlated with the error term once the effect of other covariates have been taken into account. For instance, it is likely that municipality with higher wages have also better access to public infrastructure and sanitary conditions. For our identification assumption to be valid, we need to include in X_c all the public infrastructure variables that might be correlated with municipality wages. This is obviously a strong assumption but we will rely on a particularly rich set of community characteristics so that it could be plausible that any correlation between municipality wage and ε_h has already been taken into account by the variables in X_{ci}. If our assumption fails to hold, we expect an upward bias in how household consumption influence child health.

As an additional strategy, we also consider household assets as instruments. This identification strategy allows considering municipality fixed effects but assumes that decisions over the household assets considered do not depend or respond to shocks to child health. The use of community fixed effects is particularly appealing, as it will control for the absence of the long-run price structure. However, we will have to assume that transitory price changes do not influence child health. An obvious drawback from the use of community fixed effects is that one cannot identify the effect of community level infrastructure in child health.

We will use whether or not the household owns animals, bikes and/or motorbikes. Households living in the rural part of the municipality might be more prone to own these assets. Moreover, they might have worse access to health and sanitary infrastructure. If this was the case, we expect that the importance of household consumption will be underestimated when we use the ownership of animals, bikes and/or motorbikes as instruments. We will use dummy variables to indicate whether or not the household lives in the rural concentrated or rural disperse location of the municipality to, up to certain extent, take into account this problem. However, it might also be argued that household with these assets might be richer than the average, and might enjoy better living condition. Consequently, it is not clear the direction that the bias will take. There are other assets that we have explicitly decided not to use as instruments. We will avoid using assets related to the quality of the diet like the ownership of fridge or blenders. We will not use the ownership of fans as an instrument as this could be correlated with weather conditions that might influence the prevalence of infectious diseases. We do not use either the ownership of TV or Radio as it can be correlated to the access of health related information (Thomas, et al. 1991). We do not use either whether or not the household owns the house because this can influence their incentives to invest in sanitary or water infrastructure.

As is always the case with identification assumptions, one cannot test them. However, we believe it is interesting to check how the results change using different sets of instruments and econometric specifications. Notice that we are assuming that household consumption is the only right-hand side variable that might be correlated with the error terms. For instance, we are assuming that parent's education is not correlated with inter-generational-correlated genetic endowments that might be part of ε_i.

In order to estimate how the effect of public infrastructure differs across education groups, and gender, we will also estimate the following regression:

$$H_i = \alpha + \beta_1 X_i + \beta_2 X_{hi} + \beta_3 \ln C_{hi} + \beta_4 X_{ci} + \delta_1 (X_{ci} * X_{hi}) + \delta_2 (X_{ci} * G_i) + \delta_3 (G_i * X_{hi}) + \delta_4 * Z_i + \varepsilon_{hi} + \varepsilon$$

where G_i takes value 1 if the i-th child is a girl, and 0 otherwise. The vector Z_i includes the square terms of the previous covariates. The coefficient δ_1 captures for the interactions between community and education variables. This is important to assess whether public investments benefit more or less to the more educated. The coefficients δ_2 and δ_3 estimate the differential effect of parent's education and community variables across gender.

The comunity variables, X_{ci}, can be divided in those that might be affected by policy (the presence of a hospital, the availability of nutritional programs, the coverage of the piped water networks, and education infrastructure) and those that influence child health but that cannot be influenced by policy like altitude. We will obviously focus our discussion on those that can be influenced by policy. The availability of a demand oriented nutritional program called *Familias en Accion* is within our set of community variables. This might help us, up to certain extent, to assess the relative merits of demand versus supply oriented policies.

3. The Sample

The dataset used for this paper comes from the baseline data of the evaluation of *Familias en Acción*, a program implemented by the Colombian government to foster human capital accumulation among poor children living in small municipalities. The program, modeled after the Mexican PROGRESA, provides monetary transfers to mothers in beneficiary families, conditional on having completed some requirements: (a) children under seven should be taken to growth and development check-ups, (b) children between 7 and 17 years old should regularly attend school. In order to understand the characteristics of our sample, it is important to roughly understand the requirements to participate in *Familias en Acción,* as well as the sample design (see Econometria et al. 2002 for a more detailed review)

The municipalities that are targeted by *Familias en Acción* verify all the following requirements: (i) have less than 100.000 individuals and are not the capital of a Regional Department, (ii) have at least a bank, (iii) have a minimum level of health and education infrastructure and (iv) the mayor have shown interest in participating in *Familias en Accion* and have complied with the administrative tasks to participate in the program.

In order to obtain the sample, the universe of municipalities was those with little more than 100.000 individuals. The municipalities were classified in 25 strata according to geographical region, population size living in the urban part of the municipality, the value of synthetic index for quality of life (QLI) as well as education and health infrastructure.[6] Two treatment municipalities were randomly selected within each stratum among the municipalities participating in *Familias en Accion*. For each treatment municipality, a control municipality was chosen as the most similar to the treatment municipality in terms of population size, population living in the urban part of the municipality, and QLI among the set of municipalities not participating in *Familias en Accion* but belonging to the same stratum than the treatment municipality. In practice, most control municipalities are towns without a bank (but satisfying the other requirements).

Within each municipality, eligible households were those registered in SISBEN 1 as of December 1999 and have children less than 18. SISBEN is an indicator of economic well being. Though SISBEN 1 households are typically very poor households, the SISBEN index is not computed using household consumption but some external signs of living conditions. Consequently, our consumption variable is not censored. Moreover, this variable offers a non-trivial range of variation that can be found in Table 1. This can be explained because some of the households that were SISBEN 1 as of 1999 would have higher scores at the time of the *Familias en Accion* baseline interview. The SISBEN score has been re-computed using the data from the *Familias en Accion* baseline survey. It has been found that 37% of the households would get a score of SISBEN 1, 41.7% were SISBEN 2 and 21.2% were SISBEN 3 or more at the time of the *Familias en Accion* baseline survey (Econometria et al. 2003). Notice that it is the SISBEN score of 1999 what determines the inclusion in our survey, and not the score they would have obtained at the time of the baseline survey.

Two types of surveys were administered. Community level variables were obtained through an interview administered to the major. Household and individual variables were collected using an

[6] This index was computed by the Colombian government in 1993 using the results of an extensive household survey that included information on the head of household education achievement, children educational attendance, fuel used to cook, main water source as well as other hygienic conditions.

extensive household survey that was administered to a sample of households eligible to participate in *Familias en Accion:*

As a result of this sampling scheme, the municipalities included in our sample should be more homogenous than if we took a random sample of Colombian municipalities. For instance, all the municipalities have less than 130.000 individuals. Moreover our households belong to a very poor population: average household consumption is about US$172,87 per month (the average exchange rate during 2002 was of US$1=2494 Colombian pesos). Though our sample is not representative of the Colombian population, it constitutes an opportunity to study in detail a group of the population that probably faces an important degree of malnutrition and health problems. In our sample, 23% of children under 7 years old are estimated to be chronically undernourished. This percentage is much smaller (13.5%) using a national representative sample for Colombia (Profamilia, Encuesta Nacional de Demografia y Salud. 2000). Moreover, this population is being the target of specific policy interventions like *Familias en Accion.*

4. The Data

Household and individual variables were collected using an extensive household survey that includes information on household structure, household consumption, expenditure, income, health indicators and educational attendance. The survey was conducted between June and October of 2002. In this subsection, we will comment on the main variables used in the analysis. Table 1 gives the descriptive statistics and definitions of the variables.

Though the survey was administered to 122 municipalities, we can only have 102 in our estimating sample. The difference is due to missing values in community variables, and because we choose to include only municipalities where at least twenty households were interviewed. This allows us to compute a reliable estimate of average wage in the municipality. We will have 7980 valid observations for children under seven years old.

Self-reported measures of health might be misleading as parents with different education and income might report the same illness episode differently. In order to avoid this problem, we will use objectives measures of health provided by anthropometric measures. The relation between height and age is thought to be a long run measure of health. In kids, low height relative to a kid of the same age and sex indicates past or chronic undernourishment and/or chronic or frequent illness. The relation between height and age is usually expressed by nutritionists using the Z-score: the difference between a kid's height and the median height of the reference population for the same age and sex, divided by the standard deviation of the reference population for the same age and sex. As standard in this literature, we will use the NCHS/WHO reference population. Kids are usually said to be chronically undernourished or stunted when the value of the height for age z-score is below -2. [7]

We will also use weight for height, weight for age, and leg length for age as health measures. Weight for Height provides a measure of short run changes in nutritional status. Wasting, or low weight relative to kids of the same age and sex of the reference population, might be due to starvation and severe disease (in particular diarrhea). Lack of evidence of wasting in a population does not imply the absence of long run nutritional status reflected in low height for age. The relation between weight and age is a composite measure of height for age and weight for height, and consequently, it confounds the short and long run health problems. We will also use Z-scores for weight for height and weight for age.

Height for age, weight for height, and weight for age are probably the most traditional measures of nutritional status in children. We will also use a more innovative measure: leg length per age. According to Gunnell *et al.* (1998), leg length is a particularly sensitive marker for childhood diet, infectious disease exposure, and poor living conditions. In fact, until puberty, height increases are in greater part attributable to leg growth (Gerver *et al.* 1995, and Gunnel *et al.* 2002). Improvements in the nutritional status of populations are more related to leg length than trunk length (Tanner 1982). As in Wadsworth *et al.* (2002) leg length was measured as the difference between standing and sitting heights. Leg length is not available for children under 2 years old, as they need to be measure in recumbent position. As leg length values are not available for the NCHS/WHO reference population, we will use leg length directly rather than the Z-score.

According to Table 1, the average value of HAZ (height for age Z-score) is -1.22 much smaller than 0, the value for the reference population. This confirms that stunting is a serious problem in our sample.

[7] Except for leg length, the rest of our discussion on anthropometrics is based in World Bank (2003). See the original source and reference therein for more details.

On the contrary, the value of WHZ (weight for height z-score) is very close to the one of the reference population, confirming than WHZ and HAZ are not always related. Overweight is not a problem is our sample. Only 2.5% of children have a weight for height z-score larger than 2. Form basic tabulations of the value of the z-scores, It is easy to see that the discrepancy between the values of our z-scores and zero is not constant across age groups. It is difficult to know whether these differences are because of different growth trends between Colombian children and children of the reference population, or because a more fundamental issue. In any case, we will control for age and sex through polynomials in our estimations.

Household level variables are head of household's and mother's education, mother's height, and the logarithm of consumption. Mother's height is an obvious predictor of child height.[8] The influence of maternal education in child health can be overestimated if maternal endowments are not taken into account (Barrera, 1990). We consider separately head of household and mother's education as they might differently influence child health (Barrera, 1990).

Household consumption data includes information on 96 different types of food, tobacco and alcohol consumption, transport services, personal care, household cleaning products, entertainment, clothes for adults, clothes for children, health related expenses, house furniture and gambles. We collect data not only on expenses but also on consumption of goods that were not bought in the market but come from in-house production or in the form of gifts. In-kind consumption is valued at market prices, which are averaged across households in the village. The ability to measure consumption in kind is particularly important in these societies, where most households are involved in some type of agricultural activity. Not surprisingly, around 60% of household report to have some non-market related consumption. For the average household in our survey, consumption in kind accounts for about 25% of the value of food consumption (see Attanasio et al., 2003). Table 1 reports the distribution of household consumption.

Municipality level variables are very important for the purpose of this paper. All the municipalities have either a public hospital or a public health centre, which is less complex than a hospital but usually have a physician for most of the day. HOSP is a binary variable that indicates whether or not the

[8] Mother's height might be reflecting inter.-generational correlated nutritional and health environment. Consequently, the interpretation of these estimates in a causal sense is far from trivial.

municipality has a hospital. PIPE (the proportion of households in the municipality, not only of our sample, that has access to piped water at home) is another variable directly related to policy.

FA is a binary variable that indicates whether or not the households of the municipalities had receive any payments of the *Familias en Accion* program in June 2002, the start date of the survey under study. Households in some of the municipalities started to receive payments for longer than 6 months before the baseline interview, but for most of them it was just six months before the interview. The little time that the program has been operating should be taken into account when analyzing this variable, especially when the dependent variable is height for age or leg length as they might not be sensitive to short-term nutritional changes. Moreover the interpretation of the coefficient of FA in the regression will not be clear cut as (i) the allocation of the program was not random as explained in the previous subsection, (ii) the program might have increased household consumption which is also a regressor in our specification. The purpose of this paper is not to evaluate the impact of FA program, what is done elsewhere in Attanasio et al. (2003) and in future work.

In Table 3, we compare municipality level variables between those municipalities that had not received payments in June 2002 and those that had received some payments.[9] We limit our comparison to municipalities where at least 20 households were interviewed, as these are the ones used in our sample. Table 3 shows that the municipality characteristics are reasonable well balanced, particularly the ones more related to health infrastructure: presence of a public hospital, the travel distance to a health care provider, the coverage of the piped water network, the population size, percentage of urban population, the index of quality of life, and the education infrastructure. This is not surprising given that the control municipalities were selected as the most similar to the treatment ones within each stratum (see the previous section). We were expecting to find significant differences in the presence of a bank in the municipality, as this was one of the requirements to be eligible for the program. In fact, many of the control municipalities did not get the program because they did not have a bank. We find some significant differences in the price of rice and CURFEW. The first one, even if it is statistically significant, is small in size: about 5 cents of a dollar for a kg of rice. CURFEW is only marginally significant at the 5%. If many differences are tested, one will always expect to find some statistical differences. Other variables that measure general living conditions are percentage of urban population,

[9] For future reference, we would like to emphasize that this table does not compare all the FA treatment municipalities with the FA control municipalities. Instead, we compare those that had received FA payments in June 2002 with those that had not. Some of those that had not received payments in June 2002, will receive payments later. Moreover, in this table we only use municipalities in which we interviewed at least 20 households, as these are the ones used in this paper.

population size, municipality surface, altitude, and quality of life index. We do not appreciate significant differences across these variables.

We also introduce in the regressions variables related to education infrastructure, as well as the average number of hours a week that the public hospitals or health centers provide growth and development check-ups, and the average travel time to a health care centre in the municipality computed using our sample.

Other municipality variables less directly related to policy are population size, QLI, municipality surface, percentage of urban population in the municipality, whether or not the municipality has a bank, and altitude from the sea level. Given the serious violence problems that take place in Colombia, we also consider whether or not there was a curfew in the municipality when the interviewers administered the interview.

In one specification, we will use the average municipality wage as well as the average wage of those living in the urban part of the municipality as instruments for consumption. Their average value is two thirds of the minimum wage. This is not strange, as we do not expect our population to be strongly attached to the formal labor market. In other specifications, we will use binary indicators of whether or not the household owns a bike, motorbike or animals. Table 2 shows that most of the children live in households that owns animals (66%), while 36% own a bike and only 4% own a motorbike.

5. The Results

Table 4 shows the results of the first stage regressions, that is, the regression of log consumption over the instruments and other covariates. The R-Square changes from 0.10 to 0.15 when municipality wages are used to predict log consumption, and changes to 0.16 when the assets are added to predict log consumption. The F-test for the joint significance of the instruments gives a P-value smaller than 0.001, for any of the set of instruments used.

Tables 5 to 8 report the results of the first regression described in the methodological section, the one without interaction terms. We use four health measures: the Z scores of height for age, weight for height, and weight for age, as well as leg-length. For every health measure we compute four sets of regressions: (i) Ordinary Least Squares regression without municipality fixed effects, (ii) Ordinary Least Squares regression with municipality fixed effects (iii) two stage least squares with municipality fixed effects using household assets –BIKE, MOTORBIKE, and ANIMALS- as instruments for consumption, (iii) two stage least squares without municipality fixed effects but community variables using household assets as instruments for consumption, and (iv) two stage least squares with community variables using average –for the whole municipality and for the urban part- municipality wage and its square term as instrument for household consumption.

We will briefly comment on the estimation of standard errors. When we use community variables, instead of fixed effects, we adjust for clustering at the municipality level. This takes into account the spatial correlation of the error terms of every children living in the same municipality. When we use municipality fixed effects, we will adjust the standard errors to take into account the correlation of error terms of children living in the same household, as any correlation at the municipality level will be considered by the fixed effects. The results correct for the different probability of selection in the sample using sampling correction factors.

Table 5 reports the results of height for age. The second and third columns report the OLS estimates, the second one without municipality fixed effects but with municipality variables, and the third one using municipality fixed effects. Both models provide very similar coefficient estimates, especially the one related to household consumption. This might be implying that our municipality level variables are controlling adequately for community determinants that might are correlated with household consumption. In fact, the R-square only changes from 0.16 to 0.18 when one includes the fixed effects instead of the community variables. Notice that we are including municipality variables that might be directly related to child health (HOSP, G&D, TIME, PIPE) as well as variables that are correlated with general living conditions as IQL, BANK, POPUL, URBPROP, RICEPRICE, CURFEW, and SCHOOL_POB.

We note that the mother's height is an important determinant in the regressions and have very robust results across the four specifications. Children tend to be taller if their mother is taller. AGE is another very important determinant. It is difficult to know whether this just adjusts for differential trends in growth between the reference population and our population, or whether this means that nutritional status actually changes by age.

The fourth, fifth and sixth columns show the results of the models estimated using instrumental variables. The fourth column shows the results of using household assets as instruments, while controlling for community fixed effects. The fifth column also uses household assets as instruments but it conditions on a wide set of community characteristics instead of using community fixed effects. The last column uses average wages in the municipality as instruments. Though the IV estimates are less accurate than the OLS ones, our estimates are significantly different from zero at the 95% of confidence. The point estimates are much larger than the OLS results. This is consistent with our hypothesis that the OLS might be biased downwards because parents might increase household consumption when a child suffers of poor health. The similarity among the different set of IV estimates, which are based on different identification assumptions, is somewhat surprising. The similarity between the IV estimates that use household assets and municipality fixed effects, and the estimates that use municipality average wages as instruments reassures us, in that our municipality level variables might be controlling adequately for any correlation between average wages and community determinants of child health. Notice that the OLS regressions with and without municipality fixed effects also provide us with similar estimates and measures of goodness of fit

Head of the household's education do not seem to influence child height, especially if one controls for the endogeneity of household consumption. In this case, the coefficients shrink towards zero. Mother education positively influences child height. This effect is significant for primary education. The coefficient for secondary education is of similar size but less precisely estimated, probably because of few mothers have secondary studies. We will now comment on the estimates of the effect of the municipality variables. Having a hospital improves children height. This is a robust result for the OLS and IV specifications. The rest of policy related variables are not significant, at least in this basic specification. It is a robust result across specifications that BANK and CURFEW does not influence child height in our sample. This is important, as these were the variables in which we found differences between municipalities that had received FA payments before the baseline and those that had not. FA has a negative sign though it is not significantly different from zero. This is strange as *Familias en Accion* is a program that tries to improve child health. The negative sign is probably because household consumption in households living in *Familias en Accion* municipalities has already increased due to the program but height has not improved yet given that households have been exposed for little time to the program. Some of the variables reflecting general living conditions do not have significant impacts on child health (CURFEW, SCHOOL_POB, POPUL, and BANK), while others do, such as IQL, ALTITUDE and URBPROP.

Table 6 shows the results for weight for age. As in the height for age regressions, we obtain that the OLS with and without fixed effects provide very similar estimates and goodness of fit measures. We also obtain that the coefficients of household consumption are positive and similar across the different IV specifications. The IV estimates are also larger than the OLS ones, which is consistent with the hypothesis that OLS might be biased downwards.

As in the height for age analysis, weight for age increases with mother's height. We obtain that child health insurance positively influences weight for age. Our IV estimates for the influence of health insurance are very close to 0.203 that is the impact of the Vietnam Health Insurance estimated by Wagstaff and Pradhan (2003) using difference-in-difference propensity score matching. The results on education are very similar to the ones on height for age. The importance of mother's education is quite substantial, while the importance of the head of household's education is negligible. In this specification, we do not find that any of the estimates of public infrastructure is significantly different from zero at 5%. The FA coefficient is positive but its effect in only significant at the 10% on the OLS model. The presence of a public hospital shows positive impact but not significantly different from zero at usual confidence levels.

Table 7 gives the results for weight for height. The results on consumption and public infrastructure are not very promising. Consumption is not significantly different from zero at the 95% of confidence in most of the specifications. Mother's education does not seem to play a role either. HOSP and PIPE seems to have, if any, a negative effect on weight for height. The only relevant result is that FA has a positive impact on weight for height according to the OLS specification.

The sample for leg length is of only 6356 children as we only have leg length measures for children older than 2 years old. We do not standardize leg length as there are no values for a reference population. We use polynomial in age and sex. As the dependent variable is not standardized, we tried higher order of the polynomials than the ones that we used for height, but these extra terms were not significant. Probably this is because leg length is only available for kids older than 2 years old. The results are quite similar to the ones of height for age in terms of the patterns found for household consumption and education. HOSP is positively related to leg length though it is less accurately estimated than when height for age is used.

Up to now, we have commented the results on the first type of regressions given in section 2, those that did not have any interaction terms. We now proceed to comment the results of the regressions that included interaction terms between (i) gender and mother's and head of the household education, (ii) gender and the policy variables (G&D, HOSP, PIPE, FA, TRAVEL, PRICE RICE), (iii) mother's and head of the household's education with (G&D, HOSP, PIPE, FA, TRAVEL, PRICE RICE) and (iv) (G&D, HOSP, PIPE, FA, PRICE RICE) with RURAL.[10] We also included the squared terms of all the continuous variables of the model, including the log of household consumption. Due to tractability of the estimation and interpretation of the results, we did not interact gender or education with variables not so much closely related to policy, as those that reflect general living conditions.

The presence of collinearity is a usual problem when interactions and squared terms are used. For instance, the squared of log consumption was not significant in any of the regressions, and moreover its introduction made that the first power was not significant either. For this reason, we then proceeded to obtain a more parsimonious specification based on eliminating squared and interaction terms that were not either individually or jointly significant. The results on the full specification are not reported but are available upon request. In tables 9 to 12 we report the results of the more parsimonious specification. We will comment the results that are based on the IV specification.

Table 9 reports the results of height for age. The point estimates of consumption do not virtually change from the basic specification reported in Table 5. HOSP is positively related to child height and none of its interactions were significant. The interactions of PIPE with the head of the household's and mother's education are not individually significantly different from zero, but they are jointly with P-values about 0.02. In fact, we find that the marginal effect of PIPE in the urban part of the municipality is statistically significant from zero at the 7% if both head of the household and mother have at least some primary education. This result resembles Jalan and Ravallion (2003) that find that gains from piped water in the house tend to be smaller for children with less educated mothers. Our finding is consistent across both IV specifications. The effect of PIPE in the rural part is much smaller,

[10] TRAVEL was omitted from this interaction set because it already takes different values for household living in the rural part and in the urban part of the municipality.

probably because the coverage of the network is bad. The marginal effect of G&D at its average value is positive and marginally significant at the 8%. For those children with more educated head of the household, we find that the price of rice negatively influence child height. When we analyze interactions with gender, we find that girls benefit more than boys of having a head of the household with secondary education, as well as from the extent of the piped water network. However, this effect is only significant at the 10%.

Table 10 reports the estimates for weight for age. The only interactions with gender that are statistically significant from zero are the ones with education, but the interactions with public infrastructure and other policy variables are not. The effect of the public hospital is only significant for those households with a mother with at least some secondary education. The squared terms of G&D and PRICE RICE are statistically significant from zero at 5%. The interactions of the price of rice with education were also significant. To interpret the results, we compute the marginal effects of these variables at the mean covariates. We find that the marginal effect of G&D is positive and statistically significant at the 99%. The marginal effect of the price of rice is negative and statistically significant from zero, except when the head does not have any education or when the mother has secondary education and the head has primary education. It is to explain why the elasticity of health with respect to the price of rice varies across education groups. It might even that some of that price variation is related to quality of food or availability and price of other types of food.

Table 11 reports the estimates for weight for height. The results are somehow similar to weight for age, except that the effect of a public hospital is not significant for any education group. The interactions of parent's education with gender are still significant, as well as the same marginal effect of the price of rice. The marginal effect of G&D is positive at its average value and statistically significant at the 99% in case the head has some primary education, but no distinguishable effect is found for the other education groups.

Table 12 reports the estimates for leg length. Most of the squared terms and interactions are not significant. As in height for age, we find that both the head of the household and the mother must at least have some education for PIPE to have an effect. These effects are robust across the IV specifications. The P-value that these marginal effects are different from zero are between 0.07 and

0.001 depending on the education group and particular specification. These effects do not show up in the rural part of the municipality.

6. Conclusion

This paper has analyzed the determinants of child health in a sample of poor children living in small Colombian small municipalities. We have found that both household variables and public infrastructure variables are important determinant of child health. Among household variables, we have found that household consumption is an important determinant of both long term health (height for age, leg length) and medium term health (weight for age). This has important consequences for policy. Lack of household resources will be translated to child health, and it will probably damage long run welfare and human capital accumulation. Ensuring adequate household resources should then be in the agenda of policy makers. We have also found that mother's education is an important determinant of child health, especially height for age and weight for age. We cannot identify if this is because of increase of bargaining power within the household or because increase in efficiency when combining health promoting inputs. Independently of the channels through which they operate, policy makers should consider the impact of women education on child health when the cost-benefit of different policies is being carried out. Among household related variables, we have found that having formal health insurance improves short and medium term measures of health, but its effect is not distinguishable in long-term measures. Wagstaff and Pradham (2004) have found very similar estimates of the effect of the Vietnam Health Insurance on weight related outcome variables. They use difference-in-difference propensity score matching that is a more robust estimation technique than the one we use in this paper.

We have analyzed a comprehensive set of public infrastructure variables: the presence of a public hospital, the coverage of the pipe water network, the travel distance to a health care provider and the number of hours that growth and development checkups are provided in the municipality. Average travel time in the municipality has not had any appreciable effect over child health in our sample. However, the presence of a public hospital influences positively long term measures of child health. This result is invariant to whether or not we use consider household consumption is endogenous. Moreover, we cannot capture any differential effect for households living in the urban or rural part of the municipality. It is important what services health care providers offer and the accessibility of them. We have found that the number of hours of growth and development check-ups, which are free independently of the insurance scheme, influence both long-term (height) and medium term (weight) indicators of health. We should mention that this variable is probably very much correlated with other measures of accessibility and inputs of health care supplied in the community. So, it would be difficult to disentangle the effect of it from any other measure of health care access or output.

We have also found that the coverage of the piped water network positively influenced child health if the parents have some education. This resembles the finding by Jalan and Ravallion (2003). This emphasizes that many health care interventions cannot be considered isolated from the rest of the background of the communities and that bottleneck are likely to occur. It also highlights how different health care policies might have different distributional effects. Some mechanisms should probably put in place to avoid the type of effects. Apart from fostering general education, it is an open question whether or not targeted campaigns are likely to improve people's knowledge on how to benefit from public infrastructure.

Investment in a public hospital and other public infrastructure could be justified both for distributional and efficiency motives. Public hospitals could constitute important safety nets and consequently might benefit more to the poorest. However, they could also be justified on efficiency grounds, as children living in credit constrained households might not receive appropriate care unless it is affordable. The returns to the increase of these children human capital can be very high indeed and might be unexploited because of the lack of appropriate insurance markets or because some individual households might not recognize them. The motives for extending the coverage of the piped water network are probably even clearer. Despite its beneficial effects on children height (and presumably on overall human capital), individual households are probably unable to undertake the investment on their own.

While a full fleshed cost benefit analysis of different policy interventions is beyond the scope of this paper, our exercise that focuses on a sample of poor households provides some important element for such an exercise. It is quite clear that additional infrastructure would be beneficial, and that benefits are enjoyed by poor households. It also stresses that the effect of some policies might depend on the education background of the population. This should be considered when planning these types of policies so that additional mechanisms are put in place to ensure that bottlenecks are alleviated.

The methodology of our paper has remained simple. Still, some particular issues are worth mentioning. First, we have found that OLS estimates consistently attribute much less importance to household consumption for the production of child health than instrumental variables techniques based on municipality wages or particular household assets. Second, we would like to emphasize that the effects of the water piped network, price of rice, and growth and development check-ups would not have shown up should we had not considered appropriate interaction and square terms of these and other variables.

References

Alderman, H., Hentschel, J., and R. Sabates (2001) "With the Help of One's Neighbors: Externalities in the Production of Nutrition in Peru". The World Bank

Attanasio, O., et al. (2003) "Baseline Report of the Program Familias en Accion, English Version". Report elaborated by Econometria Consultores, Sistemas Especializados de Informacion, and The Institute For Fiscal Studies. (http://www.ifs.org.uk/edepo/wps/familias_accion.pdf)

Attanasio, O.P. and V. Lechene (2002): "Tests of income pooling in Household Decisions", Review of Economic Dynamics,5(4) pp. 720-48.

Balazs, R., Jordan, P., Lewis, P. and A. Patel (1986) WUndernutrition and brain development", In Falkner, F. and J. Tanner (eds), "Human Growth: A Comprehensive Treatise" 2nd edition, Vol 3. Methodology: Ecological, Genetic, and nutritional effects on Growth. New Work and London, Plenum Press, pp 415-474.

Baker, D. (1990) "The fetal and infant origins of adult diesea" British Medical Journal 301, 1111.

Barber, S., and P. Gertler (2002) "Child health and the quality of medical care." mimeo

Barrera, A. (1990) "The interactive effects of mother's schooling and unsupplemented breastfeeding on child health" Journal of Development Economics 34(1-2), 81-98

Barrera, A. (1990) "The Role of maternal schooling and its interaction with public health programs in child health production" Journal of Development Economics 32(1), 69-91

Behrman, J. and B. Wolfe (1984) "More evidence on nutrition demand: income seems overrated and women's schooling underemphasized" Journal of Development Economics 14, 105-128

Behrman, J. and B. Wolfe (1987) "How does mother's schooling affect family health, nutrition, medical care usage, and household sanitation" Journal of Econometrics 1987, 185-204

Berhman, J. and A. Deolalikar (1988) "Health and Nutrition" Handbook of Development Economics. North Holland, Amsterdam, 631-711.

Behrman, J., (1996) "The Impact of Health and Nutrition on Education" The World Bank Research Observer 11(1), 23-37.

Brown, J. and E. Pollitt, (1996) "Malnutrition, Poverty and Intellectual Development" Scientific American 274(2), 38-43.

Econometria Consultores, Institute for Fiscal Studies, and Sistemas Integrados de Informacion (2002) " Informe Metodologico Ajustado. Evaluacion del Impacto del Programa Familias en Accion-Subsidios Condicionandos de la Red de Apoyo Social". Bogota.

Econometria Consultores, Institute for Fiscal Studies, and Sistemas Integrados de Informacion (2003) " Informe de Focalizacion. Evaluacion del Impacto del Programa Familias en Accion-Subsidios Condicionandos de la Red de Apoyo Social". Bogota.

Gerver, W. and Bruin RD. (1995) "Relationship between Height , Sitting Height and subischial Leg Length in Dutch Children: presentation of normal values" Acta Paedetriciae 84: 532-35

Guilkey, D. and R. Riphahn (1998) "The determinants of child mortality in the Philippines: estimation of a structural model" Journal of Development Economics 56, 281-305

Gunnell, D., Smith, G.D., Frankel, S., Nanchahal, K. (1998)"Childhood leg length and adult mortality: follow up of the Carnegie (Boyd Orr) Survey of Diet and Health in Pre-war Britain" Journal of Epidemology and Community Health 52: 142-152.

Gunnell, D. (2002) "Can Adult Anthropometry Be Used a Biomarker for Prenatal and Childhood Exposures" International Journal of Epidemiology 31: 390-4

Jalan, J. and M. Ravallion (2003) "Does piped water reduce diarrhea for children in rural India" Journal of Econometrics 112(1), 153-173.

Martorell, R. and J. Habicht (1986) "Growth in Early Childhood in Developing Countries" in Falkner, F. and J. Tanner (eds), "Human Growth: A Comprehensive Treatise" 2nd edition, Vol 3. Methodology: Ecological, Genetic, and nutritional effects on Growth. New Work and London, Plenum Press, pp 241-263.

De Onis, M., Fongillo, E. and M. Blossner (2000) "Is malnutrition declining? An analysis of changes in level of malnutrition since 1980" Bulletin of the World Health Organization 78(10), 1222-33

Peabody, J., Gertler, P. and A. Leibowitz (1998) "The policy implications of better structure and process on birth outcomes in Jamaica" Health Policy 43(1), 1-13.

Ribero, R. (1999) "Earnings effects of household investment in health in Colombia" Economic Growth Center, Yale University.

Rosenzweig, M. and P. Schultz (1982) "Market opportunities, genetic endowments and infrafamily resource distribution: child survival in rural India" American Economic Review 72, 803-815.

Rosenzweig, M. and P. Schultz (1983) "Estimating a household production function: heterogeneity, the demand for health inputs, and their effects on birth weight" Journal of Political Economy 92, 723-746.

Skoufias E. (2001) “PROGRESA and its Impacts on the Human Capital and Welfare of Households in Rural Mexico: A Synthesis of the Results of an Evaluation by IFPRI”, Research report, IFPRI, Washington, D.C.

Strauss, J. and D. Thomas (1995a) "Human Resources: Empirical Modelling of Household and family decisions", in Handbook of development economics, Vol. 3A. Eds.: T. Srinivasan and J. Behrman. Amsterdam: North Holland Press, pp 1883-2023.

Strauss, J. and D. Thomas (1998) “Health, Nutrition and Economic Development” Journal of Economic Literature 36(2), 766-817.

Schultz, T. (1999) “Productive Benefits of Improving Health: Evidence form Low Income Countries” Mimeo.

Tanner, J., Hayashi, T., Preece, MA., et. al “Increase in Length of Leg relative to Trunk in Japanese Children and Adults from 1957 to 1977: Comparsion with British and with Japanese Americans” Annals of Human Biology 9, 411-23.

Thomas, D (1990) “Intra-household Resource Allocation: an Inferential Approach” The Journal of Human Resources 25(4), 635-664.

Thomas, D., Lavy, J. Strauss.and M. Henriques (1991) “How does Mother’s Education Affect Child Height?” Journal of Human Resources 26(2), 183-211

Thomas, D., Strauss, J. (1992) “Prices, Infrastructure, Household Characteristics and Child Height” Journal of Development Economics 39(2),, 301-31

Thomas, D. (1994) “Like Father, like Son; Like Mother, like Daughter: Parental Resources and Child Height” The Journal of Human Resources 29 (4) 950-988.

Thomas, D., Lavy, V., and J. Strauss. (1996) “Public Policy and Anthropometric Outcomes in the Cote d’Ivoire” Journal of Public Economics 61, 155-192

Wadsworth, M., Hardy, M., Paul, A., *et al.* (2002) “Leg and Trunk Length at 43 years in relation to Childhood Health, Diet and Family Circumstance; Evidence from the 1946 National Birth Cohort” International Journal of Epidemiology 31, 383-90.

Wagstaff, A. and M. Pradhan, (2003) “Evaluating the Impacts of Health Insurance: Looking beyond the Negative”, Mimeo

Wolfe, B. and J. Behrman (1982) “Determinants of Child Mortality, Health and Nutrition in a Developing Country” Journal of Development Economics 11(2), 163-193.

World Bank (2003) “Anthropometrics” In Quantitative Techniques for Health Equity Analysis. Available in http://www.worldbank.org/poverty/health/wbact/health_eq.htm

TABLES

Table 1. Distribution of consumption		
Mean	431,160	
Std. Dev.	251,881	
Detail - Percentiles		
10%	184,989	32,693
25%	265,385	39,001
50%	380,548	
75%	531,109	2,368,466
90%	732,395	2,397,433

Table 2. Variables definitions and descriptive statistics

Variable	Mean	Std. Dev.	Description
AGE	0.477	0.234	Child's age in months divided by 100
AGE_MOTHER	0.312	0.069	Mother's age in years divided by 100
AGE_HEAD	0.391	0.114	Head of household age in years divided by 100
ANIMALS	0.668	0.471	
ALTITUDE	0.586	0.709	Altitute of the municipality from the sea level. In kms
BANK	0.781	0.414	=1 if there is at least a bank in the municipality, 0 otherwise
BIKE	0.359	0.480	
CONS	431,159.5	251,880.7	Total household consumption in Colombian pesos. In US$, average is $168 and standard deviation is $98,1
CURFEW	0.129	0.336	=1 if there was a curfew in the municipality at the time of the survey, 0 otherwise
EDUHP	0.588	0.492	=1 if Head of household has completed at least a year of primary education but has not completed any year of secondary education, 0 otherwise
EDUHS	0.150	0.357	=1 if Head of household has completed at least a year of secondary education, 0 otherwise
EDUHM	0.078	0.268	=1 if Head of household has education missing, 0 otherwise
EDUMP	0.651	0.477	=1 if mother has completed at least a year of primary education but has not completed any year of secondary education, 0 otherwise
EDUMS	0.190	0.392	=1 mother has completed at least a year of secondary education, 0 otherwise
EDUMM	0.016	0.127	=1 mother has education missing, 0 otherwise
FA	0.313	0.464	=1 If families in the municipality have received payments related to *Familias en Acciona* at the time of the survey, 0 otherwise
GIRL	0.484	0.500	=1 if child is a GIRL, 0 otherwise

Table 2. Variables definitions and descriptive statistics			
Variable	**Mean**	**Std. Dev.**	**Description**
G&D	0.178	0.165	Average number of hours a week that public hospitals and health care centres provide Growth and Development checkups. Divided by 100.
HAZ	-1.228	1.129	Height for Age Z-Score
HOSP	0.753	0.431	1 if there is a public Hospital in the municipality, 0 if none
INS	0.031	0.175	=1 if the kid is covered under the unsubsidized and most comprehensive health insurance, 0 otherwise
IQL	0.536	0.097	Value of the Index of Quality of Life computed in 1993
LEG LENGTH	45.197	6.410	Child's leg length in cms.
MOTHERH	1.537	0.061	Mother's height in metres
MOTORBIKE	0.042	0.200	
PIPE	0.872	0.135	Proportion of households with access to Piped water in the municipality in 2001
Price_rice	1.325	0.200	Price of rice in thousand pesos. Its mean corresponds to US $0.53 and its sd. to US $0.08
POPUL	0.284	0.226	Total population in the municipality in 2002/10.000
RCON	0.451	0.498	=1 if household lives in a rural but populated part of the municipality, 0 otherwise
REGION 2	0.201	0.401	=1 if household lives in the eastern region., 0 othw
REGION 3	0.276	0.447	=1 if household lives in the central region, othw
REGION 4	0.134	0.341	=1 if household lives in the pacific region, 0 othw
RDIS	0.098	0.298	=1 if household lives in a rural and disperse area of the municipality
SCHOOL_POP	2.102	1.294	Number of schools divided by thousands inhabitants
SURFACE	0.724	1.263	Municipality surface in thousand squared kms
TRAVEL	0.481	0.292	Average travel time in the municipality to a health care providers, stratified by urban or rural. In minutes divided by 100.
URBPROP	0.440	0.220	Proportion of urban population in the municipality
WAGEM_U	1.176	0.312	Average urban municipality hourly wage in thousand pesos computed using our sample. In US$, average is $0,452 and standard deviation is $0,116
WAGEM	1.163	0.287	Average municipality hourly wage in thousand pesos computed using our sample. In US$, average is $0,44 and standard deviation is $0,106
WAZ	-0.750	1.064	Weight for Age Z-score
WHZ	0.038	0.960	Weight for Height Z-score

Table 3. Municipality level variables. Comparing FA municipality versus non-FA		
Variable	**Coeficient**	**Standard Error**
ALTITUDE	0.141	0.175
BANK	0.351	0.096
SCHOOL_POP	0.276	0.307
CURFEW	0.143	0.071
HOSP	0.046	0.100
IQL	0.016	0.023
PIPE	0.025	0.030
POPUL	0.065	0.055
URBPROP	0.055	0.052
PRICE_RICE	0.143	0.039
REGION 2	0.072	0.097
REGION 3	0.032	0.107
REGION 4	0.003	0.075
SURFACE	0.197	0.333
TRAVEL	0.005	0.052

Table 4. First Stage Regressions		
	Assets	**Wages**
MOTHERH	0.886 (0.208)***	0.784 (0.209)***
GIRL	-0.013 (0.049)	-0.004 (0.049)
AGE	0.021 (0.319)	0.038 (0.329)
AGE^2	0.022 (0.759)	0.069 (0.789)
AGE^3	-0.033 (0.550)	-0.109 (0.580)
AGE*GIRL	-0.078 (0.236)	-0.154 (0.242)
AGE^2*GIRL	0.139 (0.256)	0.238 (0.263)
INS	0.184 (0.099)*	0.234 (0.112)**
EDUHP	0.063 (0.028)**	0.060 (0.028)**
EDUHS	0.162 (0.031)***	0.153 (0.030)***
EDUHM	0.162 (0.053)***	0.165 (0.052)***
AGE_HEAD	0.446 (0.142)***	0.480 (0.141)***
EDUMP	0.051 (0.028)*	0.071 (0.028)**

Table 4. First Stage Regressions

	Assets	Wages
EDUMS	0.227 (0.037)***	0.249 (0.036)***
EDUMM	0.123 (0.049)**	0.133 (0.051)**
AGE_MOTHER	0.696 (0.168)***	0.730 (0.170)***
HOSP	-0.083 (0.050)*	-0.096 (0.040)**
PIPE	-0.081 (0.124)	0.002 (0.112)
FA	0.095 (0.046)**	0.152 (0.048)***
G&D	0.001 (0.103)	0.069 (0.094)
TRAVEL	-0.153 (0.090)*	-0.146 (0.081)*
PRICE_RICE	0.200 (0.113)*	0.173 (0.101)*
SCHOOL_POP	0.014 (0.016)	0.015 (0.022)
BANK	0.144 (0.064)**	0.098 (0.051)*
SURFACE	-0.013 (0.012)	0.000 (0.009)
POPUL	0.188 (0.091)**	0.229 (0.070)***
URBPROP	0.253 (0.111)**	0.461 (0.141)***
IQL	-0.734 (0.303)**	-1,041 (0.303)***
ALTITUDE	-0.279 (0.091)***	-0.211 (0.089)**
ALTITUDE^2	0.129 (0.036)***	0.110 (0.035)***
CURFEW	0.056 (0.046)	0.063 (0.051)
REGION_2	0.189 (0.077)**	0.180 (0.067)***
REGION_3	0.125 (0.050)**	0.080 (0.053)
REGION_4	0.262 (0.085)***	0.201 (0.086)**
RCON	0.034 (0.048)	0.050 (0.040)
RDIS	-0.135 (0.063)**	-0.127 (0.061)**

Table 4. First Stage Regressions		
	Assets	**Wages**
MOTORBIKE	0.222 (0.039)***	
BIKE	0.143 (0.028)***	
ANIMALS	0.064 (0.023)***	
WAGEM		-0.129 (0.516)
WAGEM^2		0.033 (0.199)
WAGEM_U		1,305 (0.355)***
WAGEM_U^2		-0.428 (0.132)***
Constant	10,740 (0.369)***	10,166 (0.404)***
Observations	7980	7980
R-squared	0.16	0.15

Robust standard errors in brackets
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 5. Height for Age. Weighted. Regresions without interactions					
	OLS. No F	**OLS.FIXED**	**FIXED IV: Assets**	**IV: Assets**	**IV: WAGES**
LNCONS	0.108 (0.039)***	0.080 (0.035)**	0.535 (0.207)***	0.686 (0.217)***	0.645 (0.255)**
MOTHERH	42,226 (13.197)***	42,197 (12.056)***	38,805 (12.154)***	36,473 (13.504)***	36,879 (13.175)***
MOTHERH2	-11,829 (4.254)***	-11,881 (3.901)***	-10,884 (3.918)***	-10,135 (4.309)**	-10,254 (4.217)**
GIRL	0.298 (0.123)**	0.316 (0.125)**	0.315 (0.128)**	0.300 (0.130)**	0.300 (0.130)**
AGE	-5,733 (0.839)***	-5,597 (0.823)***	-5,605 (0.836)***	-5,815 (0.799)***	-5,809 (0.802)***
AGE^2	11,957 (2.271)***	11,722 (1.971)***	11,628 (2.007)***	12,069 (2.142)***	12,061 (2.155)***
AGE^3	-7,867 (1.651)***	-7,744 (1.421)***	-7,636 (1.449)***	-7,916 (1.550)***	-7,913 (1.558)***
AGE*GIRL	-1,015 (0.609)*	-1,116 (0.627)*	-1,023 (0.632)	-0.920 (0.625)	-0.927 (0.624)
AGE^2*GIRL	1,212 (0.650)*	1,326 (0.664)**	1,199 (0.667)*	1,069 (0.669)	1,079 (0.669)
INS	0.149 (0.111)	0.119 (0.123)	0.009 (0.124)	0.021 (0.113)	0.030 (0.120)

Table 5. Height for Age. Weighted. Regresions without interactions					
	OLS. No F	**OLS.FIXED**	**FIXED IV: Assets**	**IV: Assets**	**IV: WAGES**
EDUHP	-0.015 (0.047)	-0.028 (0.051)	-0.047 (0.053)	-0.050 (0.053)	-0.048 (0.051)
EDUHS	0.124 (0.060)**	0.109 (0.065)*	0.053 (0.070)	0.031 (0.073)	0.037 (0.074)
EDUHM	-0.040 (0.068)	-0.014 (0.082)	-0.090 (0.091)	-0.140 (0.084)*	-0.133 (0.093)
AGE_HEAD	0.389 (0.143)***	0.351 (0.186)*	0.122 (0.223)	0.115 (0.175)	0.134 (0.187)
EDUMP	0.171 (0.051)***	0.149 (0.055)***	0.120 (0.057)**	0.135 (0.056)**	0.137 (0.059)**
EDUMS	0.258 (0.076)***	0.218 (0.068)***	0.118 (0.081)	0.115 (0.081)	0.125 (0.099)
EDUMM	0.244 (0.113)**	0.214 (0.129)*	0.181 (0.136)	0.172 (0.129)	0.177 (0.134)
AGE_MOTHER	0.134 (0.279)	0.071 (0.282)	-0.198 (0.307)	-0.300 (0.331)	-0.269 (0.404)
HOSP	0.115 (0.056)**			0.165 (0.063)**	0.162 (0.063)**
PIPE	0.165 (0.183)			0.206 (0.174)	0.203 (0.178)
FA	0.005 (0.043)			-0.058 (0.047)	-0.054 (0.048)
G&D	0.024 (0.117)			0.022 (0.105)	0.022 (0.104)
TRAVEL	-0.127 (0.110)			-0.012 (0.105)	-0.020 (0.110)
PRICE_RICE	0.067 (0.102)			-0.042 (0.119)	-0.034 (0.121)
SCHOOL_POP	0.023 (0.019)			0.015 (0.018)	0.016 (0.018)
BANK	0.021 (0.074)			-0.068 (0.068)	-0.062 (0.073)
SURFACE	0.019 (0.010)*			0.022 (0.011)*	0.022 (0.012)*
POPUL	0.026 (0.074)			-0.083 (0.066)	-0.076 (0.080)
URBPROP	-0.343 (0.131)**			-0.493 (0.137)***	-0.483 (0.136)***
IQL	0.738 (0.310)**			1,221 (0.333)***	1,187 (0.341)***
ALTITUDE	0.238 (0.085)***			0.402 (0.104)***	0.390 (0.099)***
ALTITUDE^2	-0.134 (0.034)***			-0.212 (0.049)***	-0.206 (0.046)***
CURFEW	0.062 (0.083)			0.020 (0.078)	0.023 (0.077)

Table 5. Height for Age. Weighted. Regresions without interactions					
	OLS. No F	OLS.FIXED	FIXED IV: Assets	IV: Assets	IV: WAGES
REGION_2	0.100 (0.073)			0.013 (0.077)	0.019 (0.083)
REGION_3	0.053 (0.051)			-0.013 (0.052)	-0.008 (0.057)
REGION_4	0.106 (0.065)			-0.033 (0.082)	-0.023 (0.094)
RCON	0.063 (0.061)	0.018 (0.044)	0.025 (0.045)	0.022 (0.069)	0.025 (0.068)
RDIS	0.112 (0.066)*	0.095 (0.071)	0.169 (0.076)**	0.179 (0.084)**	0.174 (0.084)**
Constant	-39,881 (10.162)***	-38,215 (9.305)***	-40,875 (9.228)***	-42,107 (9.781)***	-41,950 (9.942)***
Observations	7980	7980	7980	7980	7980
R-squared	0.16	0.18	0.14	0.09	0.10

Robust standard errors in brackets
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 6 Weight for Age. Weighted. Regresions without interactions					
	OLS. No F	OLS.FIXED	FIXED IV: Assets	IV: Assets	IV: WAGES
LNCONS	0.111 (0.032)***	0.085 (0.036)**	0.584 (0.223)***	0.631 (0.244)**	0.552 (0.253)**
MOTHERH	25972 (10.769)**	26353 (9.505)***	22633 (9.840)**	20802 (11.789)*	21581 (11.057)*
MOTHERH2	-7280 (3.466)**	-7428 (3.080)**	-6334 (3.170)**	-5757 -3.754	-5987 (3.545)*
GIRL	0.279 (0.142)*	0.263 (0.131)**	0.261 (0.134)*	0.281 (0.150)*	0.280 (0.148)*
AGE	-8869 (0.574)***	-8918 (0.821)***	-8928 (0.839)***	-8942 (0.574)***	-8931 (0.575)***
AGE^2	20692 (1.566)***	20802 (1.974)***	20699 (2.020)***	20792 (1.576)***	20777 (1.574)***
AGE^3	-14473 (1.230)***	-14545 (1.432)***	-14427 (1.467)***	-14517 (1.256)***	-14510 (1.251)***
AGE*GIRL	-1290 (0.615)**	-1244 (0.613)**	-1142 (0.624)*	-1206 (0.631)*	-1218 (0.636)*
AGE^2*GIRL	1639 (0.594)***	1602 (0.644)**	1463 (0.655)**	1510 (0.606)**	1530 (0.613)**
INS	0.334 (0.126)***	0.209 (0.114)*	0.088 -0.12	0.219 (0.096)**	0.237 (0.127)*
EDUHP	-0.029 -0.051	-0.049 -0.051	-0.070 -0.055	-0.061 -0.055	-0.056 -0.055
EDUHS	0.072 -0.065	0.049 -0.071	-0.013 -0.079	-0.012 -0.078	0.001 -0.08

Table 6 Weight for Age. Weighted. Regresions without interactions

	OLS. No F	OLS.FIXED	FIXED IV: Assets	IV: Assets	IV: WAGES
EDUHM	-0.015	-0.005	-0.089	-0.104	-0.091
	-0.072	-0.083	-0.094	-0.091	-0.088
AGE_HEAD	-0.025	-0.099	-0.351	-0.272	-0.235
	-0.181	-0.187	-0.228	-0.174	-0.214
EDUMP	0.171	0.140	0.108	0.138	0.143
	(0.058)***	(0.048)***	(0.053)**	(0.062)**	(0.062)**
EDUMS	0.304	0.264	0.155	0.175	0.194
	(0.065)***	(0.066)***	(0.083)*	(0.088)**	(0.095)**
EDUMM	0.328	0.225	0.188	0.264	0.274
	(0.099)***	(0.116)*	-0.12	(0.104)**	(0.106)**
AGE_MOTHER	0.288	0.246	-0.049	-0.102	-0.043
	-0.204	-0.272	-0.301	-0.266	-0.3
HOSP	0.090			0.136	0.129
	-0.083			-0.085	-0.085
PIPE	-0.169			-0.133	-0.138
	-0.21			-0.216	-0.218
FA	0.107			0.050	0.059
	(0.060)*			-0.059	-0.068
G&D	-0.011			-0.013	-0.013
	-0.158			-0.151	-0.151
TRAVEL	-0.193			-0.090	-0.105
	-0.122			-0.117	-0.127
PRICE_RICE	-0.159			-0.256	-0.241
	-0.149			-0.158	-0.157
SCHOOL_POP	0.013			0.007	0.008
	-0.023			-0.024	-0.024
BANK	-0.038			-0.118	-0.106
	-0.078			-0.078	-0.082
SURFACE	0.008			0.011	0.010
	-0.014			-0.017	-0.016
POPUL	0.099			0.001	0.016
	-0.098			-0.079	-0.092
URBPROP	-0.200			-0.335	-0.315
	-0.176			(0.181)*	(0.177)*
IQL	0.058			0.492	0.427
	-0.392			-0.37	-0.41
ALTITUDE	0.029			0.176	0.154
	-0.126			-0.139	-0.149
ALTITUDE^2	0.003			-0.067	-0.056
	-0.051			-0.061	-0.062
CURFEW	0.131			0.093	0.099
	-0.081			-0.076	-0.08
REGION_2	0.151			0.074	0.085
	-0.107			-0.113	-0.119
REGION_3	0.157			0.098	0.107
	(0.082)*			-0.082	-0.094

Table 6 Weight for Age. Weighted. Regresions without interactions					
	OLS. No F	OLS.FIXED	FIXED IV: Assets	IV: Assets	IV: WAGES
REGION_4	0.137 -0.085			0.012 -0.1	0.031 -0.106
RCON	0.089 -0.061	0.004 -0.046	0.011 -0.047	0.051 -0.067	0.057 -0.065
RDIS	0.160 (0.071)**	0.109 -0.067	0.190 (0.077)**	0.220 (0.087)**	0.211 (0.082)**
Constant	-23950 (8.370)***	-23633 (7.346)***	-26550 (7.406)***	-25951 (8.408)***	-25649 (8.602)***
Observations	7980	7980	7980	7980	7980
R-squared	0.12	0.15	0.10	0.06	0.07

Robust standard errors in brackets
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 7 Weight for Height. Weighted. Regresions without interactions					
	OLS. No F	OLS.FIXED	FIXED IV: Assets	IV: Assets	IV: WAGES
LNCONS	0.070 (0.032)**	0.057 -0.036	0.446 (0.216)**	0.378 (0.206)*	0.246 -0.245
MOTHERH	1,874 -8.893	2,338 -7.689	-0.559 -8.33	-1,192 -9.882	0.122 -9.173
MOTHERH2	-0.590 -2.868	-0.729 -2.488	0.123 -2.683	0.313 -3.171	-0.074 -2.951
GIRL	0.076 -0.123	0.043 -0.116	0.042 -0.118	0.077 -0.126	0.077 -0.124
AGE	-6,566 (0.607)***	-6,736 (0.743)***	-6,743 (0.754)***	-6,609 (0.619)***	-6,591 (0.614)***
AGE^2	15,961 (1.472)***	16,302 (1.797)***	16,222 (1.829)***	16,020 (1.531)***	15,995 (1.504)***
AGE^3	-11,143 (1.161)***	-11,351 (1.324)***	-11,259 (1.350)***	-11,168 (1.223)***	-11,157 (1.194)***
AGE*GIRL	-0.252 -0.57	-0.126 -0.546	-0.047 -0.555	-0.201 -0.576	-0.223 -0.584
AGE^2*GIRL	0.239 -0.553	0.115 -0.586	0.007 -0.596	0.163 -0.552	0.196 -0.568
INS	0.328 (0.155)**	0.194 (0.117)*	0.099 -0.125	0.260 (0.142)*	0.289 (0.166)*
EDUHP	-0.018 -0.048	-0.034 -0.052	-0.050 -0.056	-0.037 -0.051	-0.029 -0.05
EDUHS	-0.005 -0.06	-0.025 -0.074	-0.074 -0.082	-0.055 -0.067	-0.033 -0.076

Table 7 Weight for Height. Weighted. Regresions without interactions					
	OLS. No F	**OLS.FIXED**	**FIXED IV: Assets**	**IV: Assets**	**IV: WAGES**
EDUHM	0.030	0.019	-0.046	-0.023	-0.001
	-0.071	-0.078	-0.089	-0.082	-0.077
AGE_HEAD	-0.345	-0.407	-0.603	-0.491	-0.428
	(0.207)*	(0.198)**	(0.231)***	(0.197)**	(0.238)*
EDUMP	0.084	0.062	0.037	0.065	0.073
	-0.058	-0.048	-0.052	-0.058	-0.06
EDUMS	0.192	0.171	0.086	0.115	0.148
	(0.077)**	(0.064)***	-0.08	-0.088	-0.101
EDUMM	0.213	0.094	0.066	0.175	0.191
	(0.125)*	-0.126	-0.126	-0.12	-0.129
AGE_MOTHER	0.257	0.254	0.025	0.025	0.125
	-0.251	-0.276	-0.3	-0.278	-0.308
HOSP	0.015			0.043	0.031
	-0.078			-0.078	-0.079
PIPE	-0.325			-0.303	-0.313
	-0.203			-0.211	-0.211
FA	0.134			0.100	0.115
	(0.065)**			-0.063	-0.073
G&D	-0.044			-0.045	-0.045
	-0.16			-0.16	-0.159
TRAVEL	-0.149			-0.087	-0.114
	-0.119			-0.118	-0.133
PRICE_RICE	-0.272			-0.330	-0.305
	(0.159)*			(0.162)**	(0.161)*
SCHOOL_POP	-0.003			-0.007	-0.006
	-0.026			-0.027	-0.026
BANK	-0.061			-0.109	-0.088
	-0.068			-0.075	-0.081
SURFACE	-0.004			-0.003	-0.003
	-0.016			-0.018	-0.017
POPUL	0.123			0.065	0.090
	-0.095			-0.084	-0.092
URBPROP	-0.005			-0.085	-0.051
	-0.168			-0.179	-0.18
IQL	-0.532			-0.275	-0.385
	-0.373			-0.377	-0.431
ALTITUDE	-0.125			-0.038	-0.076
	-0.126			-0.136	-0.149
ALTITUDE^2	0.103			0.062	0.080
	(0.052)**			-0.058	-0.063
CURFEW	0.133			0.110	0.120
	(0.079)*			-0.078	-0.079
REGION_2	0.111			0.065	0.085
	-0.12			-0.126	-0.132

Table 7 Weight for Height. Weighted. Regresions without interactions					
	OLS. No F	OLS.FIXED	FIXED IV: Assets	IV: Assets	IV: WAGES
REGION_3	0.161 (0.087)*			0.126 -0.09	0.141 -0.096
REGION_4	0.078 -0.093			0.004 -0.11	0.036 -0.105
RCON	0.065 -0.07	-0.010 -0.044	-0.004 -0.045	0.043 -0.07	0.053 -0.071
RDIS	0.125 (0.067)*	0.070 -0.065	0.133 (0.074)*	0.160 (0.076)**	0.145 (0.075)*
Constant	-0.895 -6.865	-1,738 -5.928	-4,010 -6.218	-2,081 -7.196	-1573 -7.225
Observations	7980	7980	7980	7980	7980
R-squared	0.05	0.09	0.06	0.02	0.04

Robust standard errors in brackets
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 8. Leg Length for Age. Weighted. Regresions without interactions					
	OLS. No F	OLS.FIXED	FIXED IV: Assets	IV: Assets	IV: WAGES
LNCONS	0.217 (0.114)*	0.154 -0.114	1,774 (0.649)***	2,185 (0.643)***	1,722 (0.989)*
MOTHERH	119898 (35.446)***	119674 (32.529)***	106,068 (32.929)***	98,010 (37.980)**	103,155 (38.685)***
MOTHERH2	-33579 (11.526)***	-33879 (10.532)***	-29,837 (10.597)***	-27,074 (12.216)**	-28,603 (12.421)**
GIRL	0.925 -1.331	1023 -1.187	0.991 -1.213	0.982 -1.4	0.968 -1.373
AGE	70018 (15.115)***	69019 (12.796)***	69,157 (13.148)***	69,710 (14.583)***	69,783 (14.605)***
AGE^2	-57433 (27.190)**	-55051 (23.029)**	-56,221 (23.612)**	-57,339 (26.186)**	-57,361 (26.249)**
AGE^3	27093 (15.855)*	25371 (13.439)*	26,521 (13.749)*	27,282 (15.239)*	27,238 (15.293)*
AGE*GIRL	-4939 -5.111	-5316 -4.562	-4,802 -4.653	-4,703 -5.204	-4,758 -5.159
AGE^2*GIRL	4570 -4.545	4938 -4.102	4,285 -4.173	4,106 -4.557	4,215 -4.548
INS	0.282 -0.272	0.209 -0.392	-0.195 -0.4	-0.180 -0.396	-0.071 -0.377
EDUHP	-0.137 -0.17	-0.168 -0.153	-0.242 -0.159	-0.269 -0.189	-0.238 -0.173

Table 8. Leg Length for Age. Weighted. Regresions without interactions					
	OLS. No F	**OLS.FIXED**	**FIXED IV: Assets**	**IV: Assets**	**IV: WAGES**
EDUHS	0.359	0.295	0.083	0.018	0.098
	(0.199)*	-0.222	-0.242	-0.251	-0.24
EDUHM	-0.203	-0.204	-0.482	-0.540	-0.461
	-0.191	-0.248	(0.284)*	(0.274)*	-0.287
AGE_HEAD	0.644	0.603	-0.292	-0.421	-0.171
	-0.531	-0.608	-0.734	-0.567	-0.706
EDUMP	0.461	0.414	0.301	0.315	0.350
	(0.156)***	(0.176)**	(0.181)*	(0.179)*	(0.194)*
EDUMS	0.475	0.416	0.058	-0.028	0.090
	(0.248)*	(0.230)*	-0.266	-0.305	-0.415
EDUMM	0.678	0.699	0.548	0.389	0.457
	-0.453	-0.462	-0.476	-0.532	-0.524
AGE_MOTHER	1426	1303	0.371	0.020	0.350
	(0.780)*	-0.916	-1.004	-1.078	-1.336
HOSP	0.262			0.448	0.404
	-0.219			(0.252)*	-0.246
PIPE	0.638			0.774	0.742
	-0.707			-0.706	-0.709
FA	0.120			-0.107	-0.054
	-0.194			-0.211	-0.224
G&D	-0.263			-0.240	-0.245
	-0.562			-0.55	-0.545
TRAVEL	-0.365			0.034	-0.059
	-0.42			-0.433	-0.449
PRICE_RICE	0.546			0.159	0.250
	-0.571			-0.663	-0.641
SCHOOL_POP	0.072			0.047	0.053
	-0.081			-0.083	-0.082
BANK	0.171			-0.155	-0.078
	-0.266			-0.242	-0.268
SURFACE	0.051			0.070	0.065
	-0.049			-0.06	-0.057
POPUL	0.414			0.058	0.142
	-0.534			-0.437	-0.437
URBPROP	-0.701			-1,283	-1,146
	-0.531			(0.614)**	(0.610)*
IQL	0.444			2,082	1,697
	-1.234			-1.491	-1.475
ALTITUDE	0.065			0.682	0.537
	-0.347			(0.406)*	-0.514
ALTITUDE^2	-0.194			-0.475	-0.409
	-0.132			(0.170)***	(0.219)*
CURFEW	0.442			0.315	0.345
	-0.286			-0.256	-0.263

Table 8. Leg Length for Age. Weighted. Regresions without interactions					
	OLS. No F	OLS.FIXED	FIXED IV: Assets	IV: Assets	IV: WAGES
REGION_2	-0.338			-0.664	-0.588
	-0.347			(0.366)*	-0.388
REGION_3	-0.342			-0.578	-0.522
	-0.217			(0.234)**	(0.264)*
REGION_4	-0.524			-1,049	-0.926
	-0.331			(0.394)***	(0.453)**
RCON	0.025	-0.101	-0.082	-0.131	-0.095
	-0.243	-0.151	-0.16	-0.274	-0.271
RDIS	0.381	0.150	0.383	0.578	0.532
	-0.249	-0.22	-0.235	(0.318)*	(0.312)*
Constant	-90531	-85782	-93,866	-96,147	-94,827
	(27.743)***	(25.271)***	(25.197)***	(28.957)***	(28.223)***
Observations	6356	6356	6,356	6,356	6,356
	0.78	0.79	0.78	0.76	0.77

Robust standard errors in brackets
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 9.Height for Age. Weighted. Regresions with some interactions					
	OLS. No F	OLS.FIXED	FIXED IV: Assets	IV: Assets	IV: WAGES
LNCONS	0.107	0.081	0.533	0.658	0.649
	(0.040)***	(0.035)**	(0.206)***	(0.217)***	(0.217)***
MOTHERH	41025	40959	37546	35822	35899
	(13.270)***	(12.046)***	(12.258)***	(13.508)***	(13.154)***
MOTHERH2	-11444	-11483	-10477	-9913	-9936
	(4.281)***	(3.898)***	(3.952)***	(4.318)**	(4.218)**
GIRL	-0.090	-0.095	-0.069	-0.046	-0.046
	-0.229	-0.234	-0.237	-0.215	-0.217
AGE	-5704	-5556	-5550	-5743	-5742
	(0.843)***	(0.824)***	(0.838)***	(0.803)***	(0.804)***
AGE^2	11848	11574	11440	11857	11857
	(2.250)***	(1.964)***	(2.005)***	(2.128)***	(2.129)***
AGE^3	-7767	-7604	-7464	-7744	-7745
	(1.626)***	(1.411)***	(1.445)***	(1.531)***	(1.530)***
AGE*GIRL	-0.955	-1052	-0.950	-0.860	-0.861
	-0.68	(0.633)*	-0.639	-0.682	-0.686
AGE^2*GIRL	1140	1249	1112	1000	1002
	-0.729	(0.670)*	(0.674)*	-0.734	-0.739
INS	0.146	0.108	-0.000	0.029	0.031
	-0.119	-0.125	-0.126	-0.105	-0.111

Table 9.Height for Age. Weighted. Regresions with some interactions					
	OLS. No F	OLS.FIXED	FIXED IV: Assets	IV: Assets	IV: WAGES
EDUHP	-0.308	-0.283	-0.309	-0.305	-0.305
	-0.341	-0.287	-0.3	-0.348	-0.348
EDUHS	-0.379	-0.307	-0.359	-0.402	-0.402
	-0.292	-0.368	-0.382	-0.316	-0.316
EDUHM	-0.040	-0.010	-0.082	-0.135	-0.134
	-0.065	-0.08	-0.088	-0.082	-0.089
AGE_HEAD	0.396	0.366	0.139	0.128	0.132
	(0.148)***	(0.183)**	-0.22	-0.174	-0.187
EDUMP	-0.369	-0.502	-0.418	-0.313	-0.314
	-0.266	-0.318	-0.309	-0.283	-0.279
EDUMS	-0.435	-0.399	-0.421	-0.503	-0.502
	-0.398	-0.425	-0.41	-0.416	-0.427
EDUMM	0.284	0.256	0.226	0.215	0.216
	(0.114)**	(0.127)**	(0.134)*	(0.128)*	-0.134
AGE_MOTHER	0.112	0.034	-0.225	-0.299	-0.293
	-0.279	-0.279	-0.302	-0.334	-0.402
HOSP	0.133			0.189	0.188
	(0.045)***			(0.056)***	(0.057)***
PIPE	-0.559			-0.361	-0.364
	(0.265)**			-0.251	-0.248
FA	-0.071			-0.145	-0.144
	-0.092			-0.099	-0.095
G&D	0.997			0.785	0.788
	(0.355)***			(0.369)**	(0.334)**
TRAVEL	-0.216			-0.095	-0.097
	(0.117)*			-0.117	-0.122
PRICE_RICE	0.293			0.200	0.201
	(0.136)**			-0.142	-0.137
SCHOOL_POP	0.037			0.032	0.032
	(0.018)*			(0.017)*	(0.017)*
BANK	0.028			-0.055	-0.054
	-0.065			-0.063	-0.067
SURFACE	0.007			-0.028	-0.027
	-0.042			-0.042	-0.039
POPUL	0.090			-0.004	-0.003
	-0.069			-0.062	-0.07
URBPROP	-0.273			-0.445	-0.443
	(0.127)**			(0.142)***	(0.137)***
IQL	0.586			1074	1066
	(0.320)*			(0.342)***	(0.345)***
ALTITUDE	0.182			0.313	0.311
	(0.089)**			(0.090)***	(0.100)***

Table 9.Height for Age. Weighted. Regresions with some interactions					
	OLS. No F	OLS.FIXED	FIXED IV: Assets	IV: Assets	IV: WAGES
ALTITUDE^2	-0.107 (0.032)***			-0.176 (0.041)***	-0.175 (0.042)***
CURFEW	0.033 -0.08			-0.005 -0.078	-0.004 -0.079
REGION_2	0.118 -0.075			0.036 -0.072	0.038 -0.084
REGION_3	0.078 -0.058			0.011 -0.057	0.012 -0.068
REGION_4	0.155 (0.072)**			0.029 -0.078	0.031 -0.094
RCON	0.648 (0.340)*	0.554 (0.272)**	0.641 (0.294)**	0.701 (0.370)*	0.700 (0.362)*
RDIS	0.694 (0.330)**	0.632 (0.278)**	0.785 (0.303)***	0.849 (0.366)**	0.847 (0.345)**
EDUHP*GIRL	0.439 -0.381	0.459 (0.265)*	0.438 -0.267	0.402 -0.351	0.402 -0.349
EDUHS*GIRL	1230 (0.527)**	1241 (0.600)**	1252 (0.566)**	1263 (0.436)***	1262 (0.440)***
PIPE*GIRL	0.430 (0.231)*	0.457 (0.227)**	0.441 (0.228)*	0.400 (0.202)*	0.401 (0.205)*
PIPE*EDUMP	0.555 (0.301)*	0.682 (0.364)*	0.538 -0.361	0.439 -0.325	0.440 -0.319
PIPE*EDUMS	0.750 (0.447)*	0.669 -0.482	0.563 -0.471	0.657 -0.47	0.658 -0.455
PIPE*EDUHP	0.292 -0.373	0.251 -0.319	0.270 -0.332	0.260 -0.381	0.261 -0.384
PIPE*EDUHS	0.546 (0.328)*	0.439 -0.406	0.449 -0.423	0.484 -0.365	0.485 -0.364
FA*GIRL	-0.159 (0.086)*	-0.158 (0.069)**	-0.168 (0.070)**	-0.164 (0.078)**	-0.164 (0.079)**
FA*EDUMP	0.191 (0.101)*	0.195 (0.112)*	0.228 (0.112)**	0.214 (0.108)*	0.214 (0.108)**
FA*EDUMS	0.144 -0.125	0.139 -0.13	0.181 -0.13	0.172 -0.124	0.171 -0.123
PRICE_RICE*EDUHP	-0.262 -0.279	-0.282 -0.192	-0.277 -0.194	-0.249 -0.256	-0.249 -0.255
PRICE_RICE*EDUHS	-0.869 (0.390)**	-0.868 (0.421)**	-0.894 (0.396)**	-0.913 (0.319)***	-0.912 (0.323)***
PIPE*RURAL	-0.625 (0.344)*	-0.608 (0.303)**	-0.699 (0.328)**	-0.733 (0.383)*	-0.732 (0.367)**
G&D2	-2139 (0.792)***			-1630 (0.806)**	-1638 (0.725)**
SURFACE2	0.001 -0.003			0.005 -0.003	0.005 -0.003

Table 9.Height for Age. Weighted. Regresions with some interactions					
	OLS. No F	**OLS.FIXED**	**FIXED IV: Assets**	**IV: Assets**	**IV: WAGES**
Constant	-38597 (10.269)***	-37226 (9.293)***	-39831 (9.311)***	-41078 (9.881)***	-41041 (10.056)***
Observations	7980 0.17	7980 0.18	7980 0.15	7980 0.11	7980 0.11

Robust standard errors in brackets
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 10. Weight for Age. Weighted. Regresions with some interactions					
	OLS. No F	**OLS.FIXED**	**FIXED IV: Assets**	**IV: Assets**	**IV: WAGES**
LNCONS	0.109 (0.032)***	0.083 (0.036)**	0.578 (0.221)***	0.586 (0.236)**	0.342 -0.222
MOTHERH	27713 (10.836)**	26617 (9.602)***	22810 (9.945)**	23029 (11.706)*	25432 (10.900)**
MOTHERH2	-7836 (3.496)**	-7514 (3.113)**	-6391 (3.206)**	-6457 (3.738)*	-7164 (3.507)**
GIRL	0.166 -0.159	0.142 -0.151	0.142 -0.156	0.174 -0.161	0.170 -0.159
AGE	-8887 (0.564)***	-8901 (0.820)***	-8910 (0.838)***	-8948 (0.563)***	-8917 (0.560)***
AGE^2	20745 (1.521)***	20782 (1.968)***	20678 (2.015)***	20825 (1.535)***	20784 (1.519)***
AGE^3	-14520 (1.203)***	-14541 (1.428)***	-14421 (1.464)***	-14551 (1.233)***	-14535 (1.211)***
AGE*GIRL	-1203 (0.636)*	-1186 (0.613)*	-1087 (0.625)*	-1126 (0.650)*	-1165 (0.646)*
AGE^2*GIRL	1541 (0.624)**	1534 (0.640)**	1398 (0.652)**	1424 (0.634)**	1484 (0.633)**
INS	0.313 (0.124)**	0.202 (0.113)*	0.082 -0.12	0.210 (0.094)**	0.263 (0.129)**
EDUHP	-0.067 -0.057	-0.084 -0.065	-0.095 -0.068	-0.086 -0.062	-0.076 -0.058
EDUHS	0.021 -0.077	-0.020 -0.085	-0.066 -0.093	-0.043 -0.086	-0.010 -0.083
EDUHM	-0.025 -0.07	-0.004 -0.083	-0.086 -0.094	-0.105 -0.089	-0.064 -0.078
AGE_HEAD	-0.072 -0.182	-0.115 -0.184	-0.362 -0.224	-0.297 (0.175)*	-0.182 -0.211
EDUMP	0.110 -0.088	0.131 -0.098	0.108 -0.096	0.095 -0.085	0.103 -0.088

Table 10. Weight for Age. Weighted. Regresions with some interactions

	OLS. No F	OLS.FIXED	FIXED IV: Assets	IV: Assets	IV: WAGES
EDUMS	0.036	0.046	-0.037	-0.056	-0.009
	-0.11	-0.133	-0.137	-0.125	-0.123
EDUMM	0.312	0.223	0.188	0.255	0.284
	(0.102)***	(0.116)*	-0.119	(0.104)**	(0.107)***
AGE_MOTHER	0.251	0.224	-0.066	-0.110	0.075
	-0.198	-0.269	-0.299	-0.258	-0.27
HOSP	0.012			0.076	0.043
	-0.094			-0.105	-0.096
PIPE	-0.214			-0.168	-0.192
	-0.193			-0.194	-0.196
FA	0.100			0.048	0.075
	(0.051)*			-0.052	-0.058
G&D	1714			1585	1651
	(0.435)***			(0.412)***	(0.396)***
TRAVEL	-0.159			-0.051	-0.106
	-0.122			-0.12	-0.124
PRICE_RICE	2459			2475	2467
	(0.649)***			(0.663)***	(0.640)***
SCHOOL_POP	0.000			-0.009	-0.004
	-0.022			-0.023	-0.021
BANK	-0.035			-0.109	-0.071
	-0.068			-0.068	-0.069
SURFACE	-0.005			-0.003	-0.004
	-0.015			-0.018	-0.016
POPUL	0.152			0.053	0.104
	(0.082)*			-0.072	-0.084
URBPROP	0.040			-0.079	-0.018
	-0.184			-0.181	-0.183
IQL	5708			6518	6102
	(1.861)***			(1.804)***	(1.718)***
ALTITUDE	0.119			0.262	0.189
	-0.112			(0.126)**	-0.127
ALTITUDE^2	-0.030			-0.099	-0.064
	-0.044			(0.056)*	-0.053
CURFEW	0.061			0.027	0.044
	-0.079			-0.076	-0.079
REGION_2	0.249			0.178	0.214
	(0.102)**			(0.106)*	(0.109)*
REGION_3	0.179			0.123	0.152
	(0.076)**			(0.073)*	(0.084)*
REGION_4	0.346			0.237	0.293
	(0.090)***			(0.099)**	(0.107)***
RCON	0.077	0.008	0.014	0.038	0.058
	-0.058	-0.045	-0.047	-0.065	-0.061

Table 10. Weight for Age. Weighted. Regresions with some interactions					
	OLS. No F	**OLS.FIXED**	**FIXED IV: Assets**	**IV: Assets**	**IV: WAGES**
RDIS	0.151 (0.069)**	0.116 (0.067)*	0.195 (0.076)**	0.199 (0.083)**	0.174 (0.074)**
EDUHP*GIRL	0.713 (0.297)**	0.723 (0.286)**	0.656 (0.303)**	0.676 (0.295)**	0.695 (0.296)**
EDUHS*GIRL	2011 (0.701)***	2040 (0.776)***	2017 (0.718)***	2027 (0.687)***	2019 (0.691)***
EDUMP*GIRL	-0.516 (0.256)**	-0.512 (0.287)*	-0.443 -0.3	-0.498 (0.267)*	-0.507 (0.261)*
EDUMS*GIRL	-0.929 (0.446)**	-0.888 -0.544	-0.832 -0.525	-0.861 (0.478)*	-0.896 (0.462)*
HOSP*EDUMP	0.028 -0.092	-0.025 -0.101	-0.049 -0.102	0.002 -0.097	0.016 -0.092
HOSP*EDUMS	0.299 (0.115)**	0.256 (0.139)*	0.212 -0.141	0.256 (0.122)**	0.278 (0.116)**
PRICE_RICE*EDUHP	-0.495 (0.222)**	-0.499 (0.215)**	-0.465 (0.228)**	-0.483 (0.223)**	-0.489 (0.222)**
PRICE_RICE*EDUHS	-1442 (0.490)***	-1440 (0.551)***	-1445 (0.514)***	-1474 (0.480)***	-1457 (0.482)***
PRICE_RICE*EDUMP	0.439 (0.194)**	0.439 (0.214)**	0.400 (0.224)*	0.433 (0.204)**	0.436 (0.198)**
PRICE_RICE*EDUMS	0.738 (0.323)**	0.710 (0.402)*	0.682 (0.387)*	0.699 (0.341)**	0.719 (0.332)**
PRICE_RICE2	-1101 (0.284)***			-1148 (0.288)***	-1124 (0.277)***
G&D2	-3440 (0.922)***			-3134 (0.843)***	-3291 (0.815)***
IQL2	-5655 (1.695)***			-6039 (1.678)***	-5842 (1.591)***
Constant	-28216 (8.368)***	-23775 (7.416)***	-26575 (7.454)***	-30288 (8.426)***	-29225 (8.470)***
Observations	7980 0.13	7980 0.16	7980 0.11	7980 0.08	7980 0.12

Robust standard errors in brackets
* significant at 10%; ** significant at 5%; *** significant at 1%

Table 11.Weight for Height. Weighted. Regresions with some interactions

	OLS. No F	OLS.FIXED	FIXED IV: Assets	IV: Assets	IV: WAGES
LNCONS	0.068	0.055	0.446	0.348	0.067
	(0.032)**	-0.036	(0.214)**	(0.197)*	-0.211
MOTHERH	3693	2386	-0.632	0.950	3703
	-8.753	-7.601	-8.284	-9.619	-8.681
MOTHERH2	-1170	-0.740	0.152	-0.363	-1173
	-2.828	-2.46	-2.668	-3.094	-2.801
GIRL	-0.007	-0.054	-0.054	-0.002	-0.007
	-0.142	-0.137	-0.14	-0.142	-0.141
AGE	-6569	-6732	-6741	-6603	-6568
	(0.627)***	(0.741)***	(0.753)***	(0.635)***	(0.628)***
AGE^2	15988	16315	16235	16031	15988
	(1.521)***	(1.793)***	(1.828)***	(1.575)***	(1.521)***
AGE^3	-11167	-11363	-11270	-11182	-11167
	(1.199)***	(1.320)***	(1.349)***	(1.258)***	(1.199)***
AGE*GIRL	-0.172	-0.070	0.007	-0.127	-0.172
	-0.573	-0.543	-0.554	-0.579	-0.584
AGE^2*GIRL	0.142	0.043	-0.064	0.073	0.142
	-0.556	-0.577	-0.59	-0.557	-0.572
INS	0.322	0.192	0.096	0.260	0.322
	(0.150)**	(0.115)*	-0.123	(0.137)*	(0.168)*
EDUHP	-0.230	-0.211	-0.237	-0.244	-0.229
	(0.073)***	(0.089)**	(0.094)**	(0.072)***	(0.070)***
EDUHS	-0.069	-0.084	-0.155	-0.127	-0.069
	-0.085	-0.13	-0.144	-0.096	-0.089
EDUHM	0.015	0.011	-0.054	-0.032	0.016
	-0.072	-0.077	-0.089	-0.081	-0.074
AGE_HEAD	-0.376	-0.407	-0.601	-0.508	-0.375
	(0.213)*	(0.195)**	(0.226)***	(0.205)**	-0.244
EDUMP	0.033	0.062	0.045	0.024	0.034
	-0.114	-0.094	-0.091	-0.11	-0.114
EDUMS	-0.088	-0.087	-0.150	-0.141	-0.088
	-0.137	-0.125	-0.127	-0.146	-0.148
EDUMM	0.198	0.095	0.068	0.165	0.198
	-0.131	-0.129	-0.129	-0.126	-0.138
AGE_MOTHER	0.192	0.213	-0.016	-0.019	0.192
	-0.247	-0.274	-0.299	-0.267	-0.293
HOSP	-0.154			-0.120	-0.155
	-0.134			-0.139	-0.137
PIPE	-0.356			-0.326	-0.356
	(0.188)*			-0.197	(0.195)*
FA	0.131			0.101	0.131
	(0.057)**			(0.055)*	(0.062)**

Table 11.Weight for Height. Weighted. Regresions with some interactions

	OLS. No F	OLS.FIXED	FIXED IV: Assets	IV: Assets	IV: WAGES
G&D	1043 (0.444)**			0.947 (0.444)**	1044 (0.439)**
TRAVEL	-0.098 -0.12			-0.033 -0.121	-0.098 -0.133
PRICE_RICE	2299 (0.702)***			2303 (0.743)***	2299 (0.701)***
SCHOOL_POP	-0.018 -0.025			-0.024 -0.025	-0.018 -0.024
BANK	-0.055 -0.065			-0.099 -0.07	-0.055 -0.077
SURFACE	-0.018 -0.018			-0.017 -0.019	-0.018 -0.018
POPUL	0.162 (0.084)*			0.105 -0.082	0.162 (0.087)*
URBPROP	0.213 -0.176			0.141 -0.185	0.213 -0.191
IQL	4984 (1.867)***			5465 (1.898)***	4983 (1.843)***
ALTITUDE	-0.029 -0.114			0.055 -0.127	-0.029 -0.126
ALTITUDE^2	0.065 -0.046			0.025 -0.055	0.065 -0.052
CURFEW	0.072 -0.086			0.053 -0.086	0.072 -0.086
REGION_2	0.198 (0.116)*			0.157 -0.121	0.199 -0.127
REGION_3	0.174 (0.080)**			0.141 (0.082)*	0.174 (0.087)**
REGION_4	0.278 (0.110)**			0.212 (0.125)*	0.278 (0.127)**
RCON	0.046 -0.07	-0.008 -0.043	-0.003 -0.044	0.023 -0.072	0.046 -0.071
RDIS	0.109 -0.067	0.078 -0.065	0.142 (0.073)*	0.137 (0.074)*	0.108 -0.072
EDUHP*GIRL	0.571 (0.230)**	0.561 (0.246)**	0.510 (0.260)**	0.549 (0.224)**	0.571 (0.232)**
EDUHS*GIRL	1871 (0.624)***	1860 (0.904)**	1865 (0.866)**	1904 (0.628)***	1871 (0.622)***
EDUMP*GIRL	-0.559 (0.177)***	-0.507 (0.255)**	-0.456 (0.264)*	-0.551 (0.187)***	-0.559 (0.177)***
EDUMS*GIRL	-0.940 (0.392)**	-0.855 -0.541	-0.816 -0.525	-0.902 (0.400)**	-0.940 (0.398)**
G&D*EDUHS	0.401 (0.199)**	0.467 (0.236)**	0.509 (0.245)**	0.406 (0.200)**	0.401 (0.198)**

Table 11.Weight for Height. Weighted. Regresions with some interactions					
	OLS. No F	**OLS.FIXED**	**FIXED IV: Assets**	**IV: Assets**	**IV: WAGES**
G&D*EDUHP	0.019 -0.279	0.076 -0.317	0.197 -0.33	0.103 -0.297	0.018 -0.293
HOSP*EDUMP	0.020 -0.114	-0.034 -0.099	-0.054 -0.098	0.005 -0.114	0.020 -0.114
HOSP*EDUMS	0.309 (0.140)**	0.290 (0.131)**	0.253 (0.131)*	0.282 (0.148)*	0.309 (0.141)**
HOSP*EDUHP	0.153 (0.066)**	0.095 -0.08	0.107 -0.085	0.156 (0.066)**	0.153 (0.066)**
HOSP*EDUHS	-0.002 -0.073	-0.039 -0.122	-0.023 -0.127	0.006 -0.078	-0.002 -0.072
PRICE_RICE*EDUHP	-0.419 (0.158)***	-0.403 (0.184)**	-0.376 (0.195)*	-0.411 (0.155)***	-0.419 (0.158)***
PRICE_RICE*EDUHS	-1322 (0.428)***	-1293 (0.629)**	-1314 (0.606)**	-1359 (0.434)***	-1322 (0.427)***
PRICE_RICE*EDUMP	0.460 (0.143)***	0.425 (0.189)**	0.397 (0.197)**	0.459 (0.148)***	0.460 (0.143)***
PRICE_RICE*EDUMS	0.757 (0.283)***	0.706 (0.395)*	0.687 (0.383)*	0.735 (0.287)**	0.757 (0.286)***
PRICE_RICE2	-1098 (0.312)***			-1124 (0.325)***	-1097 (0.308)***
G&D2	-2570 (0.850)***			-2381 (0.819)***	-2571 (0.841)***
IQL2	-5511 (1.743)***			-5740 (1.815)***	-5510 (1.719)***
Constant	-5019 -6.708	-1720 -5.858	-3918 -6.156	-6237 -7.09	-5015 -6.892
Observations	7980 0.06	7980 0.10	7980 0.06	7980 0.04	7980 0.06
Robust standard errors in brackets					

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 12. Length leg for Age. Weighted. Regresions with some interactions

	OLS. No F	OLS.FIXED	FIXED IV: Assets	IV: Assets	IV: WAGES
LNCONS	0.230	0.156	1,775	2,135	1,052
	(0.115)**	-0.113	(0.645)***	(0.625)***	-0.839
MOTHERH	116824	113220	99,235	96,869	108,210
	(34.969)***	(31.399)***	(32.557)***	(37.863)**	(36.240)***
MOTHERH2	-32575	-31762	-27,594	-26,668	-30,025
	(11.379)***	(10.161)***	(10.478)***	(12.200)**	(11.712)**
GIRL	0.934	1019	1,048	1,060	0.988
	-1.392	-1.202	-1.227	-1.479	-1.414
AGE	68883	68719	68,909	68,434	68,689
	(14.511)***	(12.624)***	(13.015)***	(14.195)***	(14.238)***
AGE^2	-55583	-54861	-56,180	-55,211	-55,423
	(26.127)**	(22.658)**	(23.327)**	(25.495)**	(25.617)**
AGE^3	26156	25474	26,740	26,172	26,163
	(15.272)*	(13.188)*	(13.556)**	(14.858)*	(14.962)*
AGE*GIRL	-5035	-5407	-4,938	-4,859	-4,959
	-5.293	-4.554	-4.651	-5.366	-5.288
AGE^2*GIRL	4624	4985	4,372	4,231	4,454
	-4.699	-4.086	-4.167	-4.683	-4.673
INS	0.332	0.201	-0.204	-0.106	0.143
	-0.288	-0.382	-0.394	-0.356	-0.335
EDUHP	-1600	-1721	-1,857	-1,687	-1,637
	-1.625	(0.864)**	(0.913)**	-1.588	-1.599
EDUHS	-1002	-0.778	-1,059	-1,133	-1,059
	-1.263	-1.136	-1.202	-1.32	-1.279
EDUHM	-0.176	-0.194	-0.453	-0.481	-0.308
	-0.182	-0.244	-0.276	(0.258)*	-0.245
AGE_HEAD	0.705	0.623	-0.272	-0.317	0.264
	-0.523	-0.601	-0.727	-0.543	-0.678
EDUMP	-0.912	-1488	-1,220	-0.819	-0.872
	-0.778	-1.078	-0.981	-0.877	-0.806
EDUMS	-1491	-1859	-1,941	-1,748	-1,602
	-1.207	-1.436	-1.315	-1.403	-1.302
EDUMM	0.788	0.908	0.782	0.509	0.667
	(0.436)*	(0.444)**	(0.457)*	-0.51	-0.483
AGE_MOTHER	1398	1313	0.422	0.073	0.826
	(0.743)*	-0.904	-0.988	-1.038	-1.167
HOSP	0.074			0.195	0.126
	-0.224			-0.264	-0.226
PIPE	-0.859			-0.299	-0.617
	-0.993			-0.952	-1.017
FA	-0.533			-0.828	-0.661
	(0.313)*			(0.348)**	(0.350)*

Table 12. Length leg for Age. Weighted. Regresions with some interactions					
	OLS. No F	**OLS.FIXED**	**FIXED IV: Assets**	**IV: Assets**	**IV: WAGES**
G&D	-0.335			-0.341	-0.337
	-0.526			-0.51	-0.509
TRAVEL	-0.418			-0.004	-0.239
	-0.453			-0.458	-0.479
PRICE_RICE	0.549			0.183	0.391
	-0.499			-0.527	-0.526
SCHOOL_POP	0.048			0.011	0.032
	-0.073			-0.074	-0.073
BANK	0.260			-0.023	0.138
	-0.248			-0.215	-0.22
SURFACE	0.031			0.042	0.036
	-0.05			-0.063	-0.054
POPUL	0.416			0.065	0.265
	-0.452			-0.353	-0.402
URBPROP	4290			5,233	4,697
	(2.153)**			(2.155)**	(2.242)**
IQL	-0.437			0.835	0.112
	-1.198			-1.4	-1.245
ALTITUDE	0.125			0.741	0.391
	-0.311			(0.370)**	-0.448
ALTITUDE^2	-0.239			-0.523	-0.362
	(0.118)**			(0.157)***	(0.192)*
CURFEW	0.467			0.363	0.422
	-0.282			-0.262	-0.269
REGION_2	-0.143			-0.405	-0.256
	-0.345			-0.369	-0.358
REGION_3	-0.322			-0.536	-0.414
	-0.209			(0.225)**	(0.241)*
REGION_4	-0.265			-0.688	-0.447
	-0.325			(0.355)*	-0.358
RCON	1663	1192	1,584	1,742	1,698
	-1.1	-0.784	(0.874)*	-1.193	-1.122
RDIS	1948	1429	2,033	2,356	2,124
	(1.055)*	(0.779)*	(0.879)**	(1.159)**	(1.060)**
PIPE*EDUMP	1272	1908	1,413	0.964	1,139
	-0.873	-1.223	-1.143	-0.99	-0.91
PIPE*EDUMS	1955	2341	1,946	1,623	1,812
	-1.347	-1.61	-1.495	-1.57	-1.41
PIPE*EDUHP	1745	1813	1,924	1,749	1,747
	-1.779	(0.960)*	(1.011)*	-1.759	-1.764
PIPE*EDUHS	1482	1103	1,270	1,364	1,431
	-1.398	-1.254	-1.331	-1.486	-1.429
FA*EDUMP	0.771	0.760	0.902	0.866	0.812
	(0.297)**	(0.342)**	(0.348)***	(0.328)***	(0.306)***

Table 12. Length leg for Age. Weighted. Regresions with some interactions					
	OLS. No F	**OLS.FIXED**	**FIXED IV: Assets**	**IV: Assets**	**IV: WAGES**
FA*EDUMS	0.936 (0.397)**	0.890 (0.392)**	1,061 (0.399)***	1,062 (0.427)**	0.991 (0.413)**
TRAVEL*EDUHP	-0.347 -0.387	-0.348 -0.348	-0.361 -0.364	-0.328 -0.386	-0.339 -0.383
TRAVEL*EDUHS	1918 (0.835)**	1277 (0.748)*	0.713 -0.811	1,032 -0.934	1,536 -0.955
PRICE_RICE*EDUHP	0.146 -0.199	0.143 -0.222	0.110 -0.23	0.091 -0.21	0.122 -0.199
PRICE_RICE*EDUHS	-0.367 -0.313	-0.137 -0.324	-0.077 -0.334	-0.245 -0.334	-0.315 -0.332
PIPE*RURAL	-1842 -1.128	-1452 (0.854)*	-1,858 (0.955)*	-2,099 (1.250)*	-1,953 (1.150)*
URBPROP2	-4382 (1.768)**			-5,711 (1.750)***	-4,956 (1.932)**
Constant	-87249 (27.556)***	-80482 (24.367)***	-88,287 (24.935)***	-94,217 (29.033)***	-90,257 (27.890)***
Observations	6356 0.78	6356 0.79	6,356 0.78	6,356 0.76	6,356 0.78

Robust standard errors in brackets
* significant at 10%; ** significant at 5%; *** significant at 1%