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Stylized Facts about the Quantity and Quality of Parental Time Investments on the Skill Formation of Their Children

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Abstract[1]

This paper uses seven nationally representative time use surveys in Latin America to identify key stylized facts regarding the quantity and quality of parental time investment on the skill formation of their children. Traditional models of household behavior have failed to account for the differential behavior of parents with respect to skill formation of their children vis-à-vis home production. This paper finds that, similarly to higher-income countries, there is a positive education gradient, as more educated parents spend more time on skill formation than their less educated counterparts. This pattern is observed across all countries. The paper further extends this literature by showing that more educated parents also provide better care for their children, thus increasing the socioeconomic gap.

JEL classifications: D13, I21, J12, J13
Keywords: Time use, Skill formation, Latin America

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1. Introduction

Latin America has a productivity problem. Total factor productivity (TFP) in the region is 15 percent lower in 2010 relative to 1980. This compares to East Asia, where for the same period TFP increased close to 60 percent (Levy and Schady, 2013). Thus, it is important to identify policies that could increase productivity by enhancing the skills of the labor force. However, the acquisition of skills requires a wide set of inputs throughout many stages of the life cycle (Currie and Almond, 2011). Time spent on the acquisition of those skills is of extreme importance because human capital cannot be purchased as a final good, but rather, individuals (and their parents) must participate in the creation of their skills (Ben-Porath, 1967).

Despite the relevance of the time spent by children and their parents to creating human capital, knowledge on how parental time is allocated towards their children's skills acquisition in Latin America is surprisingly minimal. The goal of this paper is to start closing up this gap analyzing Time Use Surveys from seven countries in the region in order to identify fundamental stylized facts about parental time investments regarding at-home skill formation. Following the literature, we consider four parental activities that facilitate the creation of children's skills: basic care, educational, recreational and travel. Thus, for the rest of the document we refer to *child care* and *skill formation* as interchangeable.

The starting point in the literature is a Beckerian model where parents allocate their time into three main activities: market, leisure and home production, where the latter refers to cooking and other household chores. In this traditional model, parental time spent on child care tends to be included in home production (Becker, 1965) because the market can provide some of the tasks. In these models, family structure (Sayer, Bianchi and Robinson, 2004) and age of the youngest child (Bryant and Zick, 1996) are part of the set of variables that help explain the different patterns in time allocation.

However, recent papers have challenged the assumption that parental time spent with children should be considered in a similar way to home production. For example, Guryan, Hurst, and Kearney (2008) show that, in the United States and other advanced economies, higher-educated parents spend *more* time with their children but *less* time on home production. Ramey and Ramey (2010) link data from 1965 to 2008 and show that, while time spent on home production has declined over the years, time on child care has increased, mainly since the 1990s, and even more for those with college degrees.

2

Our paper evaluates the empirical regularities predicted by the traditional and extended models of time allocation for Latin America. In particular, we test for the following five hypotheses:

1. Parental time allocated to at-home skill formation varies with child's age.
2. The amount of time allocated to skill formation varies by parental socioeconomic status.
3. Access to public services (e.g., piped water, electricity) and public goods increases parental time towards skill formation of their children.
4. Household composition matters. Teenage daughters or other adults' time is a substitute for parental time towards the skill formation of younger children.
5. Quality of parental time towards children's skill formation is positively associated with parental education.

We pay special attention to the hypothesis predicting that educated parents will allocate *more* time on child care relative to their less-educated counterparts (H2). This hypothesis is of singular interest for Latin America, because it is not clear how the education gradient in the region would compare to the observed pattern in advanced economies. On the one hand, there are reasons to expect the gradient to be smaller. First, more-educated parents have higher (Mincerian) market returns to schooling, so their opportunity costs of spending time at home caring is higher. Ample evidence shows that the returns to education are higher in developing countries, including those in Latin America. For example, Montenegro and Patrinos (2014) demonstrate that for tertiary education the returns to schooling in Latin America are 16 percent, compared to 11 percent in high-income countries. Thus, for highly educated parents in the region is much more costly to give up an hour of their working time and allocate it to child care-activities.

Second, a recent paper by Bick, Fuchs-Schündeln and Lagakos (2016) finds that, worldwide, the educated work longer hours than the less educated. For instance, in middle-income countries, such as those in Latin America, adults with tertiary education work 10 more hours per week than those with less than secondary. Furthermore, across countries, and across all education levels, workers in middle-income countries work more hours than those in richer

countries. Thus, highly educated parents in Latin America have fewer hours to allocate towards child care and face a higher opportunity cost.

On the other hand, parents in Latin America could have access to cheaper and more available market and non-market substitutes for home production. For example, housekeepers or domestic workers represent a larger share of the total employment in the region: 0.8 percent in developed countries compared to 7.6 percent in Latin America and the Caribbean, with even higher shares among employed women, 1.3 percent and 17.4 percent, respectively (ILO, 2013). Also, families in the region are more likely to be multigenerational (Ullmann, Maldonado, & Nieves, 2014) allowing other adults to substitute for parental time in home production and child care. Recent work by Agüero, Marks and Raykar (2015) shows that, in developing countries, older children act as substitutes for their mothers' time, especially adolescent girls. Thus, it remains an empirical question whether an education gradient for child care in Latin America exists and whether it is smaller or larger than in advanced economies.

We present descriptive patterns for all four components of child care after harmonizing time use surveys for seven countries in the region: Argentina, Colombia, Ecuador, Guatemala, Mexico, Peru and Uruguay. Also, we test all hypotheses using data from Peru, Mexico and Colombia. Our fifth hypothesis is only tested for Peru, using a panel data set (Young Lives Survey Round 3).

In the next section we describe how household models create testable predictions about the allocation of parental time on child care. The datasets are described in Section 3, followed by the methodology in Section 4. Section 5 discusses our main results, and Section 6 concludes.

2. Main Hypotheses

Our goal is to use models of household behavior and identify key testable hypotheses regarding the quantity and quality of parental time investments on the skill formation of their children. For instance, household models state that parents will allocate time and money to different activities (i.e., labor, leisure and home production, child care and education of their children, etc.) in order to maximize household welfare. Becker (1965) shows that parents would optimally allocate their time to care for their children when they are young. Becker's effort hypothesis implies that having children—and especially young children—would limit the labor force participation of mothers. In this case, the availability of free or low-cost public schools (including day-care

4

facilities) allows parents to send their children to school so parents can spend more time in the labor market (e.g., Agüero and Marks 2008, 2011; Cristia, 2008; Cruces and Galiani, 2007; Piras and Ripani, 2005). In such a model, skill formation of children is done first at-home, using parental time, and later away-from-home via formal schooling. However, the literature in the US has emphasized that parental investments react differently depending on whether the child is in primary or secondary school (e.g., Folbre et al., 2005; Folbre and Yoon, 2007; and Bryant and Zick, 1996) especially in the context of helping children with schoolwork. Thus, a more general hypothesis could be stated as follows:

Hypothesis 1*: Parental time allocated to at-home skill formation varies with the age of the youngest child.*

We should expect the age gradient to vary by level of economic development, with an important difference between rural and urban settings. Also, parental gender preferences could predict significant differences between sons and daughters.

Note that, in such a model, parents who are not able to pay the education costs (including forgone child income) should spend more time with their children. This implies that better-off parents would invest less time in the skill formation of their children relative to poorer parents. However, as discussed in the introduction, this idea has been challenged by recent work in the U.S. For instance, Guryan, Hurst, and Kearney (2008) find that educated mothers (those with college education or more) spend more time on childcare relative to their less educated counterparts.

Hypothesis 2*: The amount of time allocated to their children's skill formation varies by parental socioeconomic status.*

Our goal is to test whether Latin American countries follow the pattern observed in advanced economies as shown by Guryan, Hurst, and Kearney (2008) and others, or if the region is closer to the prediction of household models as described above. In our analysis, we follow the existing literature and approximate socioeconomic status by mother's education. We find strong evidence in support of a positive education gradient on child care.

What factors explain the positive education gradient? As we will show later, educated parents are spending *less* time on home production. This is consistent with evidence in the

United States (e.g., Ramey and Ramey, 2010).[2] Greenwood, Seshadri and Yorukoglu (2005) present a model where access to durable goods and electricity in general reduces the time women spend at home production. The study by Dinkelman (2011), in the context of a middle-income country such as South Africa, suggests that electricity releases women from home production. We explore whether in Latin America access to electricity, water and the availability of modern appliances would shift parental time away from household chores (e.g., house cleaning, laundry, water collection, among others) towards child care.

Hypothesis 3*: Access to public services (e.g., electricity, piped water) and durable goods increases parental time towards skill formation of their children.*

When the model is expanded to families with several children, we could test whether the effects vary by family composition. For example, older siblings could absorb some of the parental responsibilities. Similarly, the presence of other adults, besides the parents, in the household could reduce parental time spent on skill formation of children.

Hypothesis 4*: Household composition matters. Older children's and other adults' time is a substitute for parental time towards the skill formation of younger children.*

We explore whether the possible substitution effects are larger for older daughters or grandmothers relative to older sons and grandfathers. Note that the substitution could occur with respect to other tasks such as home production and not just those related to child care. An obvious extension of this prediction is that single parents might allocate their time towards skill formation differently than married parents. We test for this possibility including comparisons between single fathers and single mothers.

Heterogeneity can be further added to this model by allowing the marginal product with respect to skill formation of children to vary with parental abilities (proxy by socioeconomic status). More educated parents might not only be able and willing to sacrifice their own leisure in favor of child care compared to less educated parents, but could also have a *higher productivity* in the creation of their children's skills. Indeed, evidence from recent and long-term studies in the region shows that parents from low socioeconomic status have important knowledge gaps related to child rearing (Attanasio et al., 2014; Gertler et al., 2014).

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[2] Senior (2014) argues that the additional time towards childcare also comes at the cost of educated parents reducing their leisure time.

Hypothesis 5*: Quality of parental time towards children's skill formation is positively associated with parental education.*

As shown below, most time use Surveys only include information about the *amount* of time. The Peruvian Young Lives Survey (PYLS) asks parents about the amount of time but also about *quality* of childrearing. For example, parents are asked whether they motivate their children to read in addition to how much time they spent reading to their children. The PYLS also contains questions on how members of the family discipline their children, including questions about violence against children. This is of extreme relevance given the recent research that shows negative consequences of child maltreatment for skills, including poor executive functioning, during adolescence (e.g., Kirke-Smith, Henry and Messer, 2016; Watts-English et al., 2006).

We will explore whether the possible perception of substitution (or complementarity) varies by socioeconomic status and by location (urban vs. rural). These are the five hypotheses that we will test using data from seven Latin American countries. These datasets are described in the next section.

3. Data

Our main data sources are the time use Surveys (TUS) recently conducted in the region. We focus on the ones who can provide information relevant to our hypotheses and that are publicly available. Table 1 presents a summary of the information available in each dataset. Following Guryan, Hurst, and Kearney (2008), we identify four categories for child care or skill formation investments. "Basic care" refers to time spent on the basic needs of children. This includes feeding the child (including breastfeeding), grooming, and watching over children. "Educational" care mainly consists of helping the child with her homework and to a lesser extent, with time spent reading to the child. "Recreational" child care involves playing games with children (indoors or outdoors) among other similar activities (i.e., taking children for a walk). Lastly, "travel" child care is any travel associated with any of the three previous categories of child care. Examples include driving a child to school or to a medical appointment. Some surveys have a subset of these questions, and in others we are not able to clearly separate time allocated among these activities. For example, Ecuador's and Peru's surveys prompt for time spent playing with *and* reading to the child in one single question.

Table 1 presents a matrix with the questions used for each country-survey to measure the four categories. Our focus is on households with at least one child, whose youngest child is 17 or younger, and with a household head that is at least 21 years old at the time of the survey. Although some surveys offer information on the time use of all family members our attention is on the household head and his/her spouse and how they allocate their time towards child care. If a person indicates that he/she did not perform the activity it is imputed as a zero. All surveys allow us to identify household size and composition as well as other demographic and socioeconomic variables of the household members, including access to public services and durable goods. A summary of the time use questions in each country and the harmonization of these variables is presented below.

3.1 Argentina

The data come from the 2013 Annual Survey of Urban Households. Unlike the other surveys included in our analysis, this is not a proper TUS but rather includes a module designed to collect time use information within a general household survey. This is the most difficult survey to harmonize because the questions are not specific to child care. For example, one question relates to time spent taking care of a family member regardless of the person's age ("How much time did you spend on taking care of child, sick members or elderly adults at home?"). We coded this question as a basic care activity. There is, however, a question about time spent helping any household member with homework, and we link it to educational activities. The survey includes one question about managing the house ("How much time is dedicated to cleaning the house, preparing meals, buying groceries and maintaining the household?") that we consider to be home production. These questions are asked of household members 18 years old or older, and they refer to time spent (in activities) on a specific day (hours and minutes). The information is extrapolated to be comparable with the other surveys' weekly information by multiplying each observation by 7.

3.2 Ecuador

The database used for Ecuador comes from the 2012 National Time Use Survey. The survey asks the following question about basic care: feeding ("Did you feed a child at home?"); grooming ("Did you bathe and dress a child?'); taking care ("Did you take care of a child while doing other things?"). For educational activities, information about helping with homework ("Did you help a child or teenager with their homework at home?") is available. Questions about reading to the child and recreational ones cannot be separated ("Did you play, talk, or read to a child?"). In the case of travel child care, the survey asks if the person took a child to school, nursery, university or other educational center; if they took a child to events or school meetings; and if they took a household member to a medical consultation. Home production is measured by the preparation of meals that include the time spent cooking, serving the table and delivering food to other household members. For each of these questions, the person could answer yes or no, and if yes, time doing the activity in hours and minutes is recorded from all days of the week. All individuals aged 12 or older answer these questions.

3.3 Colombia

We use five chapters of 2012-2013 Colombian Time Use Survey. There are two questions regarding basic care related to feeding ("Which member(s) at home did you feed or helped to?") and grooming ("Which member(s) at home did you bathe, dress or helped to?"). The questions, however, are not limited to young children, so respondents could have included time use helping elders as well. Regarding the educational care of the child, the Colombian survey has information on time spent helping a child with her homework ("Which member(s) at home did you help with homework?") and reading stories ("How much time did you dedicate ton telling or reading stories?"). This last question, however, is asked only of households with children under the age of 6.

The survey also has information on time spent playing with the child and playing with him/her at the park. We consider both to be recreational activities. Time spent taking the child to school, to cultural or social events or to a medical consultation is considered within "travel child care." Home production is measured by time spent preparing meal, which includes cooking, setting the table and taking food to household members, among other activities.

All questions were asked of household members who were 10 years of age or older. Individuals answered the number of hours and minutes spent in certain activity between Monday and Friday and during the weekend.

3.4 Guatemala

The 2011 Guatemalan Time Use Survey has only one question regarding child care activities: "Did you take care of a child at home?" Home production can only be inferred by the question "Did you cook?" Both questions ask for time spent in hours and minutes on a particular day, and they were asked of all family members 12 years of age or older.

3.5 Peru

Peru's database was constructed using the 2010 Time Use Survey. All time use questions, with the exception of breastfeeding (for women only), were asked of household members who were at least 12 years old. The questionnaire has four inquiries related to basic care activities. Two questions relate to breastfeeding and feeding, which we merge into one variable ("How much time did you use breastfeeding a newborn or baby?" and "How much time did you dedicate to feeding a child (not including breastfeeding?"). There is one question about grooming the child ("How much time did you dedicate to bathing, dressing and/or putting a diaper on a baby or child?") and one about watching over a child ("How much time did you dedicate to taking care of a baby or child while you were also doing other things?").

Educational care variables include one question related to helping the child with his/her homework ("How much time did you dedicate to helping the child with homework?"). As in Ecuador, the questionnaire does not allow us to separate recreational activities from other educational tasks ("How much time did you dedicate to playing, telling or reading stories to a child at home?"). In addition, the survey, does not ask questions regarding time use in travel related to child care.

There are questions regarding time spent preparing meals (cooking, setting the table and taking food to household members among other activities) that represent our measure of home production. Responses are recorded in hours and minutes performing a specific activity from Monday to Friday and during the weekends. We add the time for the whole week and present it in hours.

3.6 Mexico

We use the 2009 Time Use Survey, which allows us to identify several child care questions. Three of them are related to basic care: feeding ("Did you feed a child aged six years old or lower?"); grooming ("Did you bathe, dress and/or put on a diaper on a child aged six years or lower?") or watching over a child ("Did you take care of any child under fifteen years old or less while you were also doing other things?"). For the educational care variables, the survey only offers one question related to the time spent helping the child with homework ("Did you help someone under 15 with school work?"). The travel child care variables refer to time spent taking the child to a social or cultural event, or to a medical appointment ("Did you take or pick up from school or day care someone under 15 years?" and "Did you take, accompany or pick up someone younger than 15 years for medical care?"). There were no questions related to recreational activities in the survey.

All child care questions were asked of household members 12 years of age or older. When asked if a certain activity was done, the person could answer yes or no, and then how much time they spent doing it (in hours and minutes) from Monday to Friday and during the weekend.

3.7 Uruguay

We use the 2013 Time Use and Unpaid Work Survey. One unique trait of the Uruguayan survey is that child care variables were divided by age groups: <3, between 4 and 5 and for children between 6 and 12 years old. We use the information available in these three sections.

Questions about basic care include two activities: feeding ("Did you breastfeed or feed the child?"), asked only of households with children 5 or younger and grooming ("Did you help with bathing and changing the child?"), asked only of households with children under 12 years old. In the case of educational care, the question refers to the time spent helping with homework (only for households with children between 4 and 12 years old). The recreational activity mentioned in the survey is the time spent playing or taking a child for a walk, asked of all household with a child 12 or younger. The travel questions are "Did you take a child to school?" and "Did you take a child to a medical appointment?" (also asked of household with at least one child under 12). Home production is measured by meal preparation ("Did you cook any meal?" and "Did you serve the food and wash the dishes?").

All questions were asked of household members 14 or older. The reference period is the day before the survey and the hours and minutes spent (in any activity) were recorded. Because of this, the information provided was extrapolated in order to be comparable to the other survey's weekly information (all observations were multiplied by seven to obtain weekly hours).

Based on these descriptions, we have identified two variables that are quite homogenous across countries: time spent feeding a child (including breastfeeding) and helping the child with homework. These two constitute the main outcomes to be discussed in the document. The methodology for testing the hypotheses regarding parental time allocation to child care is presented below.

4. Methodology

In this section we present the framework to explore how parental time investment changes with the variables capturing the hypotheses discussed in Section 2. Let S_{ij} be the parental time spent (number of hours per week) on skill formation of their children for the i-th family in country j. Thus, the following regression characterizes the general specification:

$$S_{ij}=\alpha+\beta X_{ij}+\gamma P_{ij}+\lambda C_{ij}+\theta H_{ij}+\mu_j+e_{ij} \qquad (1)$$

For each hypothesis we have a different variable of interest included in vector X_{ij} in equation (1). All regressions will incorporate characteristics of the youngest child—such as age, gender, and school enrollment that are captured in vector C_{ij}—as well as parental (P_{ij}) and household (H_{ij}) characteristics. Parental characteristics include age, marital status, gender, and education level of the mother. Household variables include region of residence (e.g., administrative regions), rural or urban location, household composition (e.g., grandparent living with them, presence of other adults, number and composition of children) and access to public services (e.g., piped water, electricity) and durable goods. When jointly estimated, the regressions will also include country fixed effects. Robust standard errors clustered at the main sampling unit of the surveys.

Note that the emphasis here is on the identification of several stylized facts following the predictions from models of household behavior. Thus, our parameter of interest (β) will be interpreted as reflecting a strong correlation between parental time investments and each of the variables for the hypotheses rather than as a causal effect. We will also explore heterogeneous associations by interacting our variable of interest, in each hypothesis, with several

characteristics. This is shown in equation (2), where vector D_{ij} represents gender of the child, gender of the parent as well as mother's education and ethnicity and household location (e.g., rural). This specification will allow us to test whether the hypotheses are strongly validated for certain groups of the population by testing the sign and magnitude of π.

$$S_{ij}=\alpha+\beta X_{ic}+\pi X_{ic}*D_{ij}+\gamma P_{ij}+\lambda C_{ij}+\theta H_{ij}+\mu_j+e_{ij} \qquad (2)$$

Table 2 matches the hypotheses with the predictions in the econometric model. In the next section we present our descriptive analysis followed by the regression estimates.

5. Findings

5.1 Descriptive Analysis

In this section we identify the main patterns observed when using all seven surveys. The results are grouped by type of activity and show the average number of hours parents spent during a week in each activity and how they vary with age of the youngest child. In Tables 3A-3C we focus on parental time spent on three aspects of basic care: feeding, grooming and taking care of the child, respectively. A few patterns emerge.

First, for equally defined questions, we find a surprisingly similarity in the number of hours allocated to each activity. For example, time spent feeding a child, including breastfeeding, is very homogenous in the region. In Table 3A, parents with children younger than 6 (column 1) spent between 4.1 hours (Colombia) and 5.9 hours (Peru), with only Uruguay showing a much larger number (8.6). When the child is between 12 and 17 (column 3), feeding him requires 0.2 hours in Colombia and 0.16 in Peru. When the questions vary significantly by country, as in the case of general care of a child, we observe large disparities (Table 3C). Thus, aggregating time use patterns into broader categories has the risk of adding too much noise to the cross-country comparison.

Second, despite the difference in levels, we observe important age-specific behaviors. In all countries the number of hours dedicated to basic care reduces with the age of the child. For instance, in Colombia, Ecuador and Peru, parents spend 80 percent to 90 percent fewer hours feeding a child if she is between 6 and 11 compared to parents with children under-five. For Colombian and Peruvian parents, there is a further reduction of 33-36 percent when the child is 12 to 17.

13

These patterns are repeated for other child care activities. In Tables 4A and 4B we focus on educational care measured by reading to a child and helping them with homework, respectively. Consider the former. The question regarding time invested reading to a child has nearly the same wording in Peru and Ecuador, and both surveys mix reading with storytelling and playing with the child. For these countries the number of hours is remarkably similar: 4.8 and 4.4 for Ecuador and Peru, respectively, when the child is under five (column 1). For Colombia, whose question refers only to reading, the number of hours is much smaller (0.4 hours per week).

We observe age-specific patterns in these tables as well. However, while time reading to (and playing with) a child monotonically decreases with her age, time spent helping children with homework follows an inverted-U shape. This pattern is observed in all countries.[3]

Time spent on home production, measured by time preparing meals, is less sensitive to the child's age. Despite the difference across countries in the number of hours parents spent preparing meals, Table 7 only shows there is a slight decline in the time allocated to this activity. This contrasts with the documented patterns for the other forms of child care. Thus, this is our first step towards showing that child care is viewed by parents differently from home production.

How does time on child care activities vary with the parents' characteristics? In Figure 1, we show that mothers account for the bulk of the time parents allocate to child care. For basic care, mothers account for at least 80 percent of the time spent on this activity. Gender differences are less pronounced for recreational and travel care, but mothers' time still comprises more than half of the number of hours allocated to these activities in all the countries of our sample.

We also explore the unconditional relationship between mother's education and time spent on child care. As discussed above, traditional household models suggest that if child care is considered in the same way as home production we should expect educated parents to allocate fewer hours to such activity. In Tables 8 (A, B, C, and D) and 9 (A, B) we show the opposite: time allotted to helping with homework and basic care *increases* with parental education. This contrasts with the patterns for home production where for most countries we find a *negative* education gradient. The differential behavior is similar to the one documented in advanced economies, despite the fact that parents in Latin America work longer hours and face higher

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[3] For the smaller set of countries that have information about recreational and travel care we continue to observe a monotonic decline with age of the youngest child (Tables 5 and 6, respectively).

Mincerian returns to schooling.[4] In the next section we expand this discussion as we consider other factors predicting changes in time allocation to basic care.

5.2 An International Comparison of Parental Time Allocation

Tables 13 to 17 report the hours spend per week on child care for men and women by marital and working status in Peru, Mexico, Colombia, Uruguay, and Ecuador. As mentioned before, child care is divided into four categories—basic, educational, recreational, and travel—but varies depending on the availability of data in each survey.

In all countries, except Mexico, mothers spend between 6 and 14 hours a week in all child care activities.[5] Most of the time is spent in basic care and involves feeding, grooming or taking care of the child. We find also that the time mothers spend on basic care is larger when having a child under five years old. For instance, Peruvian mothers spend 6.22 hours in basic care, while those with at least one child under the age of 5 spend 13.81 hours on the same activities.

We observe a few common patterns across countries. The clearest relates to gender differences in time allocation. Mothers spend almost three times more than fathers in all child care. This gap widens when we refer to basic care. For example, Colombian mothers invest 3.15 hours a week in basic care, while fathers spend only 0.93 hours. Even when comparing working parents, the gender gap is still visible in all child care activities. For instance, Ecuadorian fathers invest 1.38 hour a week in basic care, while mothers invest 7.35 hours. An exception is observed when referring to recreational care. The difference is not particularly wide, and in some countries fathers tend to dedicate as much or more time to these activities (in both Colombia and Uruguay the mother/father ratios are 0.54 and 1.17, respectively).

When comparing unmarried working mothers with their married counterparts, we see the latter investing more hours in child care in all countries. Mexican and Ecuadorian single working mothers, for example, spend 17.9 hours and 9.7 hours, respectively, while those who are married spend 21.4 hours and 13.2 hours. This may evidence that having a partner to share economic responsibilities allows mothers to allocate more time towards child care.

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[4] The results are consistent with those found by Guryan, Hurst and Kearney (2008) for the United States.
[5] There is a particularity with the statistics found for Mexico. All child care includes basic, educational and travel activities. In Mexico's case, the average hours per week parents spend in all child care is 21.19, which is higher than the Latin American region. The difference relates to the question regarding taking care of the child. The question was formulated as being aware of the child while doing other things.

Another pattern suggests that the time spent by both working parents does not decrease greatly when referring to educational care in comparison to basic care. For example, Peruvian nonworking mothers spend 9.8 and 4.4 hours per week on basic care and educational care, respectively. However, when we see the numbers for working mothers, time on basic care declines significantly to only 4.5 hours. Educational care goes down, but only to 2.7 hours. These facts suggest that working mothers are more willing to sacrifice basic care activities than the time spent on the skill formation of the child.

How does this compare to the evidence from the American Time Use Survey? We can use the findings of Guryan, Hurst and Kearney (2008) to establish whether the patterns we observe in Latin American countries are similar to those in the United States. The comparison has some limitations, however, as the surveys were computed in different time periods and with non-homogenous questions. Still, we have found several similarities and some interesting differences across countries.

First, mothers in the United States spend on average 14.0 hours per week on all child care activities, more than the time spent in countries such as Peru and Colombia (10.9 and 6.8 hours); and close to the time invested in Ecuador and Uruguay (14.3 and 15.9 hours). Furthermore, in both the United States and Latin America the main activities that parents invest in are related to basic care of the child. The pattern is more evident for U.S. mothers, since basic care accounts for 55 percent of the time spent in all child care (Guryan, Hurst and Kearney, 2008) versus 46 percent to 50 percent in Latin America.

Moreover, the gender gap in time spent with children varies across regions. As mentioned before, in most Latin American countries mothers spend almost three times as much as fathers do in all child care, especially basic care. However, in the United States the ratios of childcare hours are approximately two to one (for mothers).

Tables 18 to 22 show the time spent by mothers in five Latin American countries by their educational achievement. The tables, a replication of those in Guryan, Hurst and Kearney (2008), tallow us to compare our findings with those available for the U.S. economy. We find that, as the education of the mother increases, the fraction of mothers that is present in the labor market also increases and the average number of children decreases. An interesting fact is that mothers in Latin American countries work as much or even more than their American counterparts. For

example, in Peru, mothers with complete secondary education work about 24.2 hours a week, while in the U.S. they spend 23.7 hours in the same activities.

Additionally, we observe that at each educational level working mothers spend less time in child care than those who are not working, pattern present in all countries. It seems as if having completed university only increases the time spent on total care in the United States. In Latin American countries, the hours invested by the mother increases only until the completion of high school; after that, having college studies has a marginal negative effect on the time spent on child care.

5.3 Regression Results

In this section we present results for Peru, Colombia and Mexico related to all but two of the hypotheses discussed.[6] Tables 23 to 31 present estimates of Equation (1) for several outcomes of basic, educational care and home production, respectively. We find strong evidence in favor of Hypothesis 1: parents *monotonically* allocate less time to older children. For the three countries analyzed, we find negative and statistical significant estimates for older children (relative to those between 0 and 2) regarding number of hours a week dedicated to basic child care.

Notably, this result does not hold for time spent helping with homework (or overall educational child care); where we continue to find an inverted-U pattern. Parents help their children with homework as they get older. After reaching a certain age, however, the number of hours spent helping with homework decreases. The finding holds, even after controlling for other child or parental characteristics.

We also find that educated parents allocate *more* time to educational child care in contrast to the prediction of traditional time allocation models. Everything else equal, parents with a tertiary education level spend, depending on the country, between 0.2 to 1.9 hours a week more helping their children compared to their counterparts with less than primary education. Curiously, for basic care we do not observe a robust education gradient.[7] The finding is consistent with models of human capital where education provides an advantage when dealing with more complex tasks (Rosenzweig, 1995). If helping with a child's homework is a

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[6] The third hypothesis about access to public services was tested in the regression but was found non- significant. The fifth hypothesis, about the quality of parental time, will be analyzed in the following section.
[7] The relationship is only clearly positive for Mexico for time spent on "caring."

sufficiently complex task or there is a greater scope for misusing inputs, we should expect more relevance of parental schooling for such tasks.

Also, we provide evidence showing that, for every schooling level of the parent, their children have much higher educational outcomes today compared to in 1970. For example, in Mexico, using the population censuses available in IPUMS, we show in Figure 2 that a mother without schooling in 2010 has a teen child that on average has finished primary school (six years of schooling). An uneducated mother in 1970 would have had a child with half the years of schooling. For these parents, helping with their children's homework is a much more difficult task as their own children have more schooling than the parents themselves.

Additionally, and in line with the literature from richer countries, we find a significantly negative education gradient regarding home production. It is important, then, to properly differentiate child care activities as educated parents may decide to outsource (substitute) household activities, given their higher incomes, but spend a larger amount of time helping their children in educational activities (more difficult to substitute).

Our estimations identify some other important patterns. For example, single parents spend less time on *feeding* and *grooming* child care activities. This is in part a mechanical result as two-parent households have one additional parent. However, the reduction in the number of hours for single-mothers is relatively small (between -0.14 to -0.39 hours a week depending on the country). Although the difference is statistically significant, the amount of hours single mothers spend on *feeding* and *grooming* is comparable to two-parent households. Single-father households, in contrast, face a larger reduction of time spent in these activities (from -0.9 to -2.8 hours a week depending on the country). The differences are statistically significant and may point to different priorities according to the gender of the household head. For instance, we also find that single-father households spend more time helping with homework than single-mother households and even two-parent households.

Finally, family size and composition also matters. There is evidence that adult women are substitutes for parental time with respect to homework help (though not significant in all countries), but not for child care. Older parents spend less time on basic care, even after controlling for the age of the youngest child but more time on helping with homework, though the effect peaks when the mother is in her 40s.[8]

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[8] The estimates are statistically significant for Peru and Colombia.

5.4 Young Lives Survey Findings

We also explored whether the *quality* of the parental time towards children's skill formation is positively associated with parental education. Focusing on the Peruvian case, we study two outcomes: the use of harsh punishment and encouragement to read books. Using data from the Peruvian Demographic and Health Survey, harsh punishment is defined as a binary variable that is equal to one if the parents used physical violence (including spanking) as a way to discipline their children. Taking advantage of the questions of the survey, we have included whether parents locked up their children, left them outside the house, denied them food, threw water at them or removed their clothes. We use a linear probability model to estimate the correlation between that type of punishment and the mother's years of schooling. Our regression controls for marital status, mother's age and location as single binary variables. Figure 3 shows the main findings. We find a strong negative association between mother's education and harsh punishment.

Using data from the Peruvian chapter of the Young Lives project, we test whether educated mothers are more likely to encourage their children to read. This outcome is a binary variable that takes the value of one if parents often engage in such activity and zero if sometimes or never (and almost never). As shown in Figure 4 and using an analogous methodology to the case of harsh punishment, we observe a positive link. Thus, our findings suggest that parents with higher socio-economic status tend to provide a higher *quantity* and *quality* of skills for their children.

6. Conclusions

We draw several empirical conclusions regarding parental time allocation in Latin America. First, for the countries with equally defined questions, we find a surprisingly similarity in the number of hours parents invest in basic care activities such as feeding, grooming and taking care of the child. However, considering the fact that most questions vary significantly by country, aggregating time use patterns into broader categories has the risk of adding noise to the cross-country comparison.

In the case of educational care, we observe age-specific patterns. While time reading to (and playing with) a child decreases monotonically with their age, time spent helping children with homework follows an inverted-U shape. This pattern is observed in all countries.

We also find an interesting pattern related to the time spent on home production. Despite the difference in the average number of hours parents spent preparing meals across countries, the evidence suggests that it is not particularly sensitive to the child's age.

When analyzing the data through regressions we confirm some of our initial results. Parents *monotonically* allocate less time to older children. For the three countries analyzed (Peru, Mexico, and Colombia), we find negative and statistical significant estimates for older children (relative to those between 0 and 2) regarding number of hours a week dedicated to basic child care.

Regarding the time spent helping with homework (or overall educational child care), we continue to find an inverted-U pattern. Parents help their children with homework as they get older, but after children reach a certain age the number of hours spent helping them decreases.

We also encounter a significantly negative education gradient regarding home production; that is, more educated parents tend to spend less time on this type of activities. It is important, then, to properly differentiate child care activities from home production activities. Educated parents may decide to outsource (substitute) household activities, given their higher incomes, but spend a larger amount of time helping their children in educational activities (more difficult to substitute).

We draw some final conclusions when analyzing the quality of parental time. Focusing on the Peruvian case, we study two outcomes: the use of harsh punishment and encouragement to read books. We find a strong negative association between mother's education and harsh punishment; less educated parents tend to resource to harsh punishments when dealing with their children. Also, we observe that educated mothers are more likely to encourage their children to read. Thus, our findings suggest that parents with higher socio-economic status tend to provide higher *quantity* and *quality* of skills for their children.

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Figure 1. Parental Time Investment by Gender of the Parent, Type of Care and Country
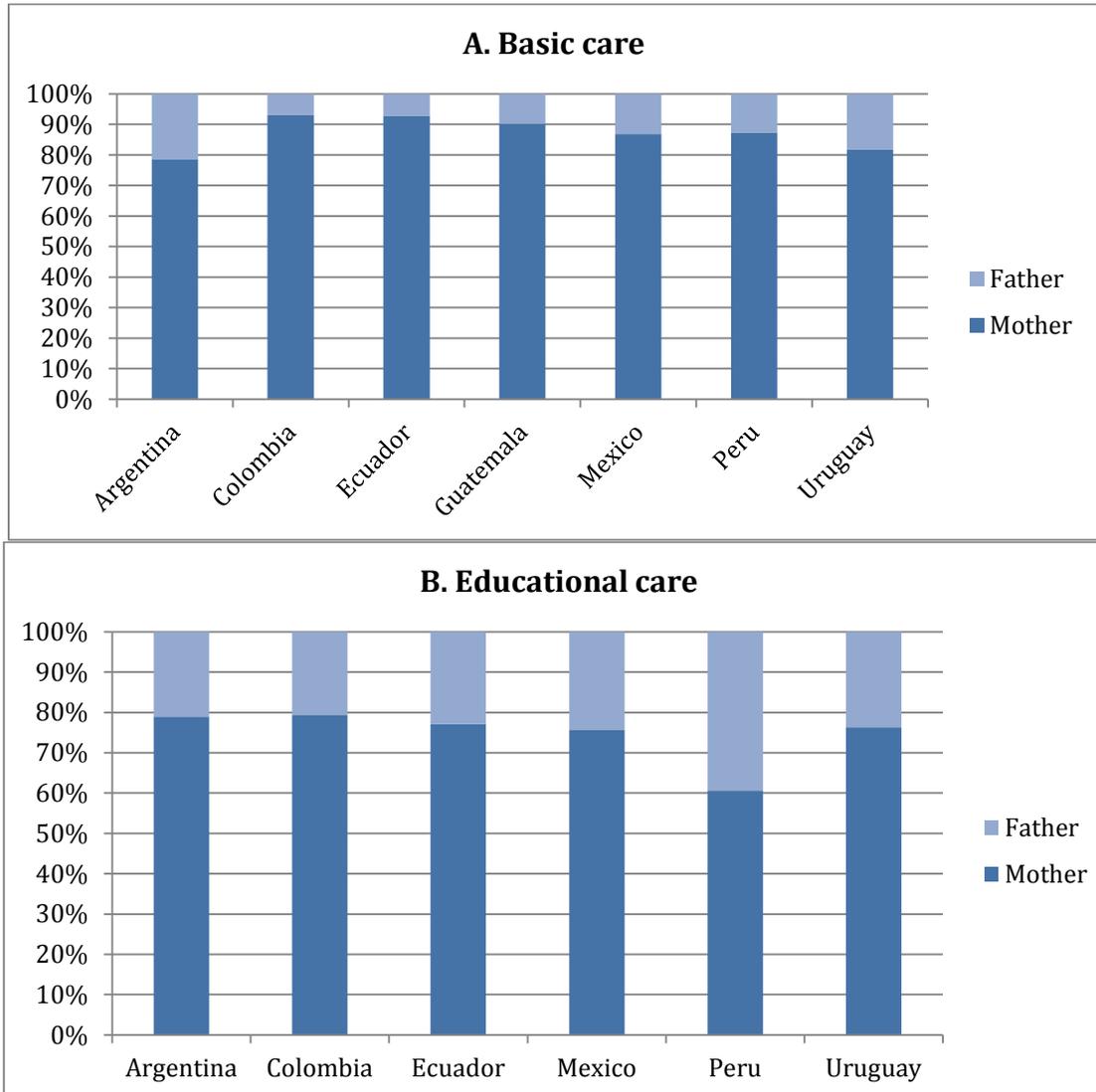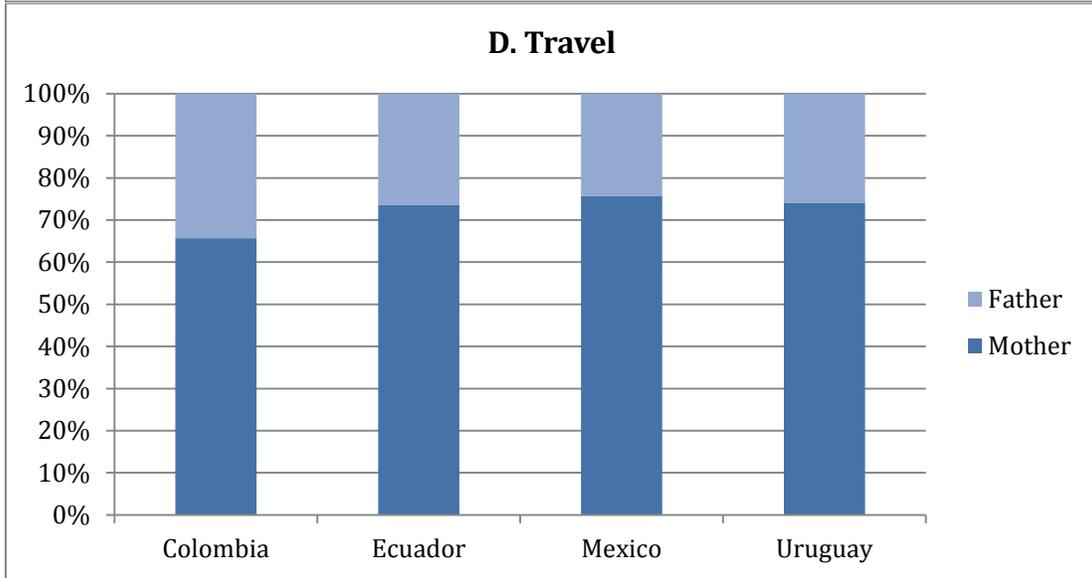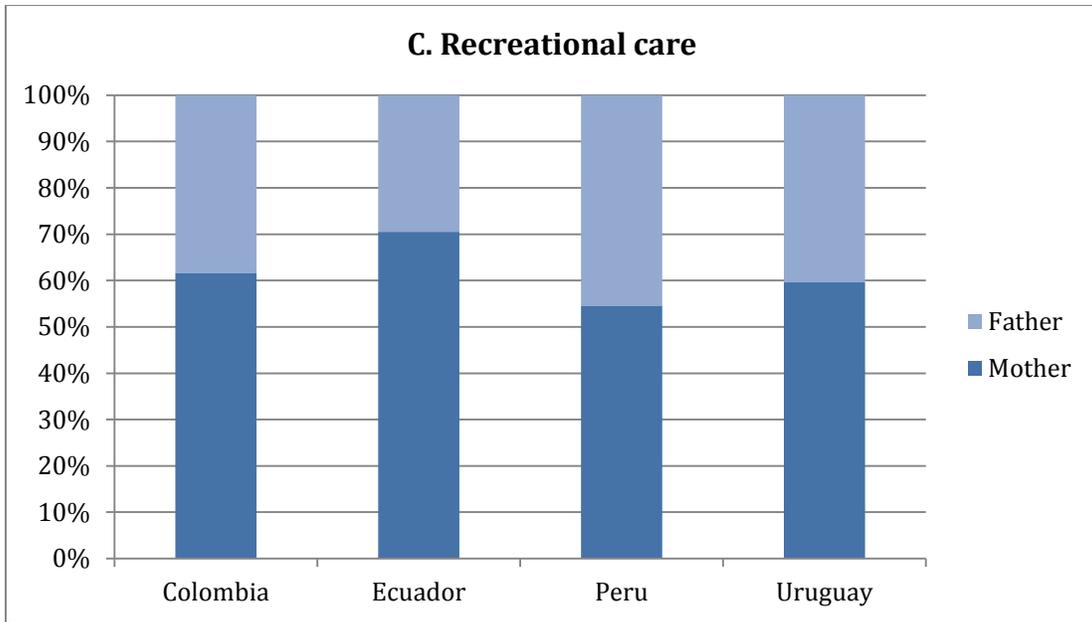
C. Recreational care

D. Travel

Source: Authors' calculations based on the Time Use Surveys of Argentina (2013), Colombia (2012-2013), Ecuador (2012), Mexico (2009), Peru (2010), and Uruguay (2013).

Figure 2. Mexico: Mothers' Education Gradient for Child's Schooling in 1970 and 2010
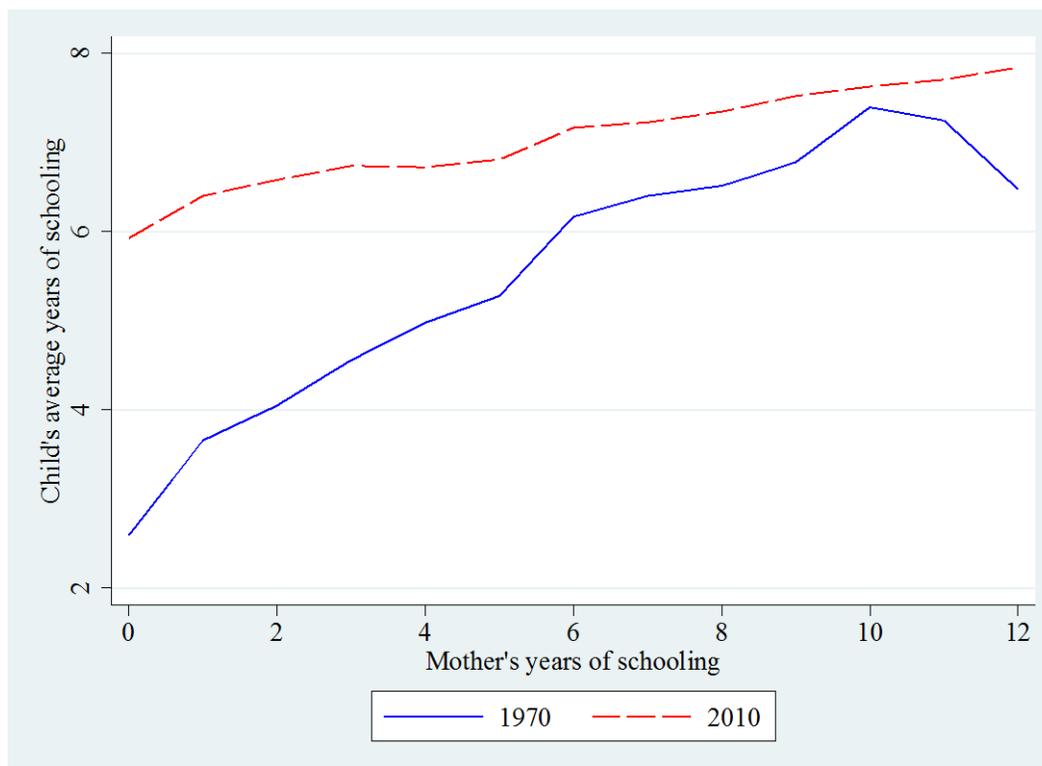
Figure 3. Peru: Harsh Punishment and Mother's Education
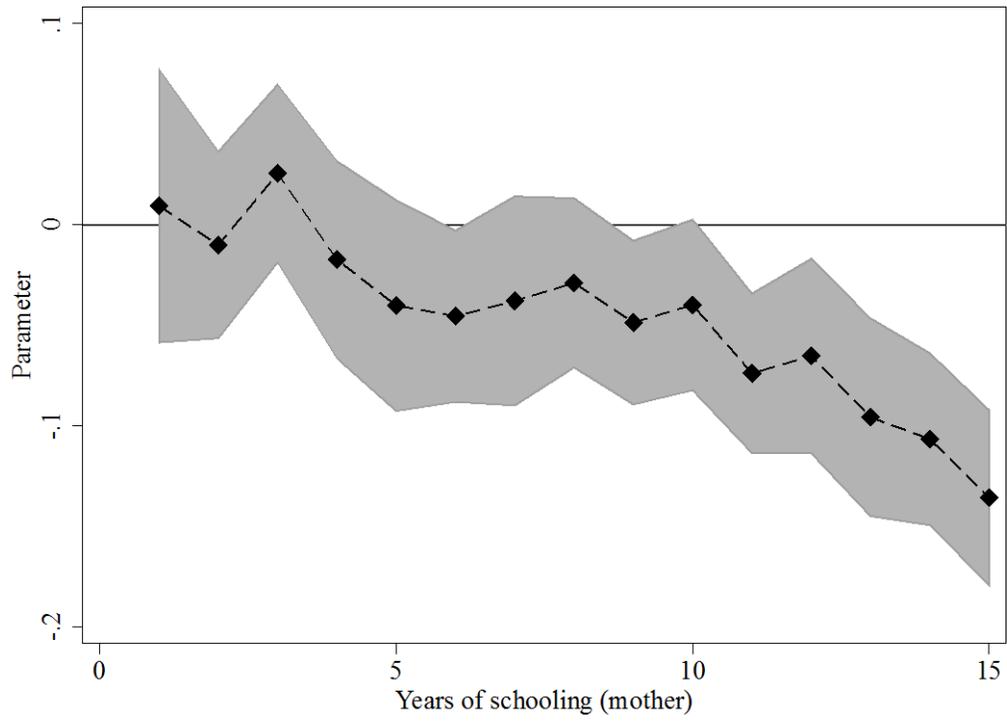
Note: Each symbol represents the parameter for each year of schooling of the mother, relative to the base (no education). Regression includes marital status, mother's age and location as single binary variables. Robust and clustered (by sample areas) 95% confidence intervals are shown as the shaded area.

Table 1. List Surveys by Country and Characteristics

Characteristics and Variables	Argentina	Colombia	Ecuador	Guatemala	Mexico	Peru	Uruguay
Type	Household survey	TUS	TUS	TUS	TUS	TUS	TUS
Year	2013	2012-2013	2012	2011	2009	2010	2013
Observations	65,352	123,316	70,543	66,523	44,084	17,490	11,494

Variables for parental time allocation

Basic

	Argentina	Colombia	Ecuador	Guatemala	Mexico	Peru	Uruguay
Feeding		X	X		X	X	X
Grooming		X	X		X	X	X
Taking care	X		X	X	X	X	
Preparing the meals	X	X	X	X	X	X	X

Educational

	Argentina	Colombia	Ecuador	Guatemala	Mexico	Peru	Uruguay
Reading		X	X			X	
Helping with homework	X	X	X		X	X	X

Recreational

	Argentina	Colombia	Ecuador	Guatemala	Mexico	Peru	Uruguay
Recreational		X	X		X	X	X

Travel

	Argentina	Colombia	Ecuador	Guatemala	Mexico	Peru	Uruguay
To school		X	X		X		X
To cultural event		X	X		X		
To medical consultation		X	X				X

Table 2. Hypotheses and Expected Signs

Hypotheses	Variable of Interest	Sign
H1	Child's age	$\beta < 0$
H2	Mother's years of schooling, education attainment	Model: $\beta < 0$, but developed countries data $\beta > 0$
H3	Access to piped water or electricity	$\beta > 0$
H4	Presence of grandparents or older children (son vs daughter)	Substitutes: $\beta < 0$, complements: $\beta > 0$
H5	Mother's years of schooling, education attainment	$\beta > 0$

Table 3A. Parental Time Investment in Children's Basic Care: Feeding
(Average number of hours per week)

Country	Age range of the youngest child		
	0-5	6-11	12-17
	(1)	(2)	(3)
Colombia	4.12	0.33	0.21
	(0.08)	(0.02)	(0.02)
Ecuador	4.98	0.98	
	(0.12)	(0.08)	
Mexico	5.49		
	(0.13)		
Peru	5.86	0.24	0.16
	(0.26)	(0.06)	(0.03)
Uruguay	8.59		
	(0.44)		

Source: Authors' calculations based on the Time Use Surveys of Colombia (2012-2013), Ecuador (2012), Mexico (2009), Peru (2010), and Uruguay (2013).
Note: Standard errors of the mean are presented in parenthesis. Colombia's survey includes both the time spent feeding and helping to feed the child. Peru and Uruguay include the time spent breastfeeding by the mother. There are blank spaces because the sample used in every country varies according to the question of the Time Use Survey. In the case of Peru, is focused on households with children from 0 to 17. For Mexico and Uruguay, this question is only asked to households with children 5 or younger. Ecuador's survey considers households with at least a child who is 12 or younger. Colombia does not restrict the sample for this question.

Table 3B. Parental Time Investment in Children's Basic Care: Grooming
(Average number of hours per week)

Country	Age range of the youngest child		
	0-5	6-11	12-17
	(1)	(2)	(3)
Colombia	2.80	0.43	0.18
	(0.04)	(0.25)	(0.02)
Ecuador	3.13	0.65	
	(0.06)	(0.04)	
Mexico	4.31		
	(0.08)		
Peru	3.07	0.72	0.10
	(0.10)	(0.06)	(0.02)
Uruguay	6.38	4.22	0.48
	(0.33)	(0.27)	(0.14)

Source: Authors' calculations based on the Time Use Surveys of Colombia (2012-2013), Ecuador (2012), Mexico (2009), Peru (2010), and Uruguay (2013).

Note: Standard errors of the mean are presented in parenthesis. In all countries, grooming is understood as bathing or changing the child; in case they are older implies helping them. There are blank spaces because the sample used in every country varies according to the question of the Time Use Survey. In the case of Peru, is focused on households with children from 0 to 17. For Mexico, this question is only asked to households with children 5 or younger. Ecuador's and Uruguay's survey consider households with at least one child who is 12 or younger. Colombia does not restrict the sample for this question.

Table 3C. Parental Time Investment in Children's Basic Care: Taking Care
(Average number of hours per week)

Country	Age range of the youngest child		
	0-5	6-11	12-17
	(1)	(2)	(3)
Argentina	49.24	25.08	10.55
	(1.37)	(0.98)	(1.49)
Ecuador	10.82	3.03	
	(0.47)	(0.22)	
Guatemala	34.62	12.43	5.43
	(0.98)	(0.86)	(0.69)
Mexico	25.28	16.99	4.60
	(1.21)	(0.93)	(0.46)
Peru	5.38	1.55	0.45
	(0.30)	(0.14)	(0.12)

Source: Authors' calculations based on the Time Use Surveys of Colombia (2012-2013), Ecuador (2012), Guatemala (2011), Mexico (2009), and Peru (2010).

Note: Standard errors of the mean are presented in parenthesis. In the case of Argentina, in addition to taking care of a child, the question also includes taking care of sick and old household members. There are blank spaces because the sample used in every country varies according to the question of the Time Use Survey. In the case of Peru, is focused on households with children from 0 to 17. For Mexico, this question is only asked to households with children 15 or younger. Ecuador's survey considers households with at least a child who is 12 or younger. Guatemala's survey does not restrict the sample for this question.

Table 4A. Parental Time Investment in Children's Skill Formation: Reading
(Average number of hours per week)

Country	Age range of the youngest child		
	0-5	6-11	12-17
	(1)	(2)	(3)
Colombia	0.40		
	(0.02)		
Ecuador	4.81	2.00	
	(0.16)	(0.11)	
Peru	4.43	1.79	0.41
	(0.20)	(0.12)	(0.07)

Source: Authors' calculations based on the Time Use Surveys of Colombia (2012-2013), Ecuador (2012), Peru (2010).

Note: Standard errors of the mean are presented in parenthesis. In Peru and Ecuador the question also includes the time spent playing with the child. There are blank spaces because the sample used in every country varies according to the question of the Time Use Survey. In the case of Peru, is focused on households with children from 0 to 17. For Colombia, this question is only asked to households with children between 0 and 5 years old. Ecuador's survey considers households with at least a child who is 12 or younger.

Table 4B. Parental Time Investment in Children's Skill Formation: Helping with Homework (Average number of hours per week)

Country	Age range of the youngest child		
	0-5	6-11	12-17
	(1)	(2)	(3)
Argentina	8.15	10.35	4.57
	(0.46)	(0.50)	(0.37)
Colombia	1.07	1.68	0.40
	(0.04)	(0.06)	(0.04)
Ecuador	4.07	4.39	1.57
	(0.11)	(0.13)	(0.09)
Mexico	3.32	4.39	0.64
	(0.09)	(0.11)	(0.05)
Peru	2.96	3.28	0.61
	(0.13)	(0.16)	(0.07)
Uruguay	1.05	2.75	0.50
	(0.17)	(0.24)	(0.15)

Source: Authors' calculations based on the Time Use Surveys of Argentina (2013), Colombia (2012-2013), Ecuador (2012), Mexico (2009), Peru (2010), and Uruguay (2013).
Note: Standard errors of the mean are presented in parenthesis. Argentina's question about homework refers to the time spent helping all household members, not only the children. The sample used in every country varies according to the question of the Time Use Survey. In the case of Peru, is focused on households with children from 0 to 17. For Uruguay, the question applies to households with children from 4 to 12 years old. Colombia, Argentina and Ecuador do not restrict the sample for this question.

Table 5. Parental Time Investment in Children's Recreational Care
(Average number of hours per week)

Country	Age range of the youngest child		
	0-5	6-11	12-17
	(1)	(2)	(3)
Colombia	7.99		
	(0.14)		
Uruguay	20.78	8.26	1.16
	(1.33)	(0.91)	(0.45)

Source: Authors' calculations based on the Time Use Surveys of Colombia (2012-2013), Ecuador (2012), Peru (2010).

Note: Standard errors of the mean are presented in parenthesis. The recreational activity included in all Time Use Surveys is play with the child. Mexico and Uruguay also consider taking a walk with the child. The question for Peru and Ecuador takes into account the time reading to the child. There are blank spaces because the sample used in every country varies according to the question of the Time Use Survey. In the case of Peru, is focused on children from 0-17. For Colombia, this question is only asked to households with children between 0-5 years. Uruguay and Ecuador focused the question only on children from 0-12 years.

Table 6. Parental Time Investment in Children's Travel Care: Taking Children to School
(Average number of hours per week)

Country	Age range of the youngest child		
	0-5	6-11	12-17
	(1)	(2)	(3)
Colombia	0.34	0.36	0.12
	(0.02)	(0.20)	(0.01)
Ecuador	0.95	0.65	0.20
	(0.05)	(0.04)	(0.03)
Mexico	2.02	2.14	0.56
	(0.07)	(0.07)	(0.04)
Uruguay	1.63	1.87	0.20
	(0.16)	(0.20)	(0.07)

Source: Authors' calculations based on the Time Use Surveys of Colombia (2012-2013), Ecuador (2012), Mexico (2009), and Uruguay (2013).

Note: Standard errors of the mean are presented in parenthesis. The sample used in every country varies according to the question of the Time Use Survey. For Mexico, this question is only asked to households with children between 0-15 years. Uruguay focused the question only on children from 0-12 years. Colombia and Ecuador do not restrict the sample for this question (all households with children are included).

Table 7. Parental Time Investment in Children's Basic Care: Preparing Meals
(Average number of hours per week)

Country	Age range of the youngest child		
	0-5	6-11	12-17
	(1)	(2)	(3)
Argentina	38.57	35.37	34.16
	(0.76)	(0.78)	(0.96)
Colombia	16.93	16.44	15.38
	(0.16)	(0.17)	(0.17)
Ecuador	20.43	19.50	18.62
	(0.25)	(0.35)	(0.35)
Guatemala	14.83	14.16	12.76
	(0.30)	(0.28)	(0.42)
Mexico	21.55	21.21	20.32
	(0.27)	(0.30)	(0.33)
Peru	20.31	19.56	17.51
	(0.49)	(0.60)	(0.57)
Uruguay	14.94	13.63	13.49
	(0.46)	(0.52)	(0.60)

Source: Authors' calculations based on the Time Use Surveys of Argentina (2013), Colombia (2012-2013), Ecuador (2012), Guatemala (2011), Mexico (2009), Peru (2010), and Uruguay (2013).

Note: Standard errors of the mean are presented in parenthesis. This question is asked to all households in the sample. In the cases of Peru, Mexico, Colombia and Ecuador the preparation of meals includes: time spent cooking; setting the table; washing the dishes; and delivering food to household members that are at work, school, etc. For Argentina the question includes other activities: cleaning the house, doing laundry and going grocery shopping. In Guatemala, the question refers only to the time spent cooking. Uruguay's survey includes the time spent cooking, setting the table and washing the dishes.

Table 8A. Parental Time Investment in Children's Basic Care: Feeding
(Average number of hours per week)

Country	Mother's Educational Level		
	Less than primary	Less than secondary	Complete secondary
	(1)	(2)	(3)
Colombia	1.29	1.70	2.18
	(0.07)	(0.06)	(0.09)
Ecuador	1.96	2.52	2.62
	(0.12)	(0.10)	(0.11)
Mexico	1.52	2.40	2.48
	(0.12)	(0.14)	(0.09)
Peru	2.21	3.50	2.49
	(0.24)	(0.32)	(0.17)
Uruguay	3.41	3.34	4.63
	(1.22)	(0.29)	(0.46)

Source: Authors' calculations based on the Time Use Surveys of Colombia (2012-2013), Ecuador (2012), Mexico (2009), Peru (2010), and Uruguay (2013).

Note: Standard errors of the mean are presented in parenthesis. The categories are defined as: less than primary (includes no education); less than secondary (includes complete primary and some secondary); and complete secondary (includes higher education). Colombia's survey includes both the time spent feeding and helping to feed the child. Peru and Uruguay include the time spent breastfeeding by the mother. The sample used in every country varies according to the question of the Time Use Survey. In the case of Peru, is focused on households with children from 0 to 17. For Mexico and Uruguay, this question is only asked to households with children 5 or younger. Ecuador's survey considers households with at least a child who is 12 or younger. Colombia does not restrict the sample for this question.

Table 8B. Parental Time Investment in Children's Basic Care: Grooming
(Average number of hours per week)

Country	Mother's Educational Level		
	Less than primary	Less than secondary	Complete secondary
	(1)	(2)	(3)
Colombia	1.16	1.27	1.40
	(0.05)	(0.04)	(0.04)
Ecuador	1.34	1.57	1.67
	(0.09)	(0.05)	(0.06)
Mexico	1.29	1.87	1.93
	(0.09)	(0.09)	(0.06)
Peru	1.18	2.00	1.69
	(0.09)	(0.12)	(0.08)
Uruguay	4.83	4.32	4.02
	(2.05)	(0.24)	(0.26)

Source: Authors' calculations based on the Time Use Surveys of Colombia (2012-2013), Ecuador (2012), Mexico (2009), Peru (2010), and Uruguay (2013).

Note: Standard errors of the mean are presented in parenthesis. The categories are defined as: less than primary (includes no education); less than secondary (includes complete primary and some secondary); and complete secondary (includes higher education). In all countries, grooming is understood as bathing or changing the child; in case they are older implies helping them. The sample used in every country varies according to the question of the Time Use Survey. In the case of Peru, is focused on households with children from 0 to 17. For Mexico, this question is only asked to households with children 5 or younger. Ecuador's and Uruguay's survey consider households with at least one child who is 12 or younger. Colombia does not restrict the sample for this question.

Table 8C. Parental Time Investment in Children's Basic Care: Taking Care
(Average number of hours per week)

Country	Mother's Educational Level		
	Less than primary (1)	Less than secondary (2)	Complete secondary (3)
Argentina	23.67	31.13	35.14
	(2.91)	(1.46)	(1.19)
Ecuador	4.31	5.89	5.92
	(0.34)	(0.40)	(0.29)
Guatemala	17.03	24.03	30.45
	(0.73)	(0.82)	(1.26)
Mexico	11.09	16.34	19.67
	(0.93)	(1.18)	(0.98)
Peru	2.28	3.31	3.32
	(0.21)	(0.27)	(0.28)

Source: Authors' calculations based on the Time Use Surveys of Colombia (2012-2013), Ecuador (2012), Guatemala (2011), Mexico (2009), and Peru (2010).

Note: Standard errors of the mean are presented in parenthesis. The categories are defined as: less than primary (includes no education); less than secondary (includes complete primary and some secondary); and complete secondary (includes higher education). In the case of Argentina, in addition to taking care of a child, the question also includes taking care of sick and old household members. The sample used in every country varies according to the question of the Time Use Survey. In the case of Peru, is focused on households with children from 0 to 17. For Mexico, this question is only asked to households with children 15 or younger. Ecuador's survey considers households with at least a child who is 12 or younger. Guatemala's survey does not restrict the sample for this question.

Table 9A. Parental Time Investment in Children's Skill Formation: Reading
(Average number of hours per week)

Country	Mother's Educational Level		
	Less than primary	Less than secondary	Complete secondary
	(1)	(2)	(3)
Colombia	0.07	0.11	0.30
	(0.02)	(0.01)	(0.03)
Ecuador	1.78	2.65	3.23
	(0.13)	(0.11)	(0.16)2.
Peru	1.59	2.75	3.23
	(0.12)	(0.18)	(2.88)

Source: Authors' calculations based on the Time Use Surveys of Colombia (2012-2013), Ecuador (2012), Peru (2010).

Note: Standard errors of the mean are presented in parenthesis. The categories are defined as: less than primary (includes no education); less than secondary (includes complete primary and some secondary); and complete secondary (includes higher education). In Peru and Ecuador the question also includes the time spent playing with the child. There are blank spaces because the sample used in every country varies according to the question of the Time Use Survey. In the case of Peru, is focused on households with children from 0 to 17. For Colombia, this question is only asked to households with children between 0 and 5 years old. Ecuador's survey considers households with at least a child who is 12 or younger.

Table 9B. Parental Time Helping with Homework by Mother's Education Level
(Average number of hours per week)

Country	Mother's Educational Level		
	Less than primary (1)	Less than secondary (2)	Complete secondary (3)
Argentina	4.49	8.20	8.20
	(0.59)	(0.49)	(0.36)
Colombia	0.59	0.96	1.46
	(0.05)	(0.05)	(0.07)
Ecuador	2.33	3.81	3.90
	(0.12)	(0.11)	(0.13)
Mexico	1.58	2.64	3.56
	(0.10)	(0.10)	(0.08)
Peru	1.66	2.61	3.15
	(0.13)	(0.16)	(0.15)
Uruguay	1.91	1.36	1.54
	(0.88)	(0.13)	(0.23)

Source: Authors' calculations based on the Time Use Surveys of Argentina (2013), Colombia (2012-2013), Ecuador (2012), Mexico (2009), Peru (2010), and Uruguay (2013).

Note: Standard errors of the mean are presented in parenthesis. The categories are defined as: less than primary (includes no education); less than secondary (includes complete primary and some secondary); and complete secondary (includes higher education). The sample used in every country varies according to the question of the Time Use Survey. In the case of Peru, is focused on households with children from 0 to 17. For Uruguay, the question applies to households with children from 4 to 12 years old. Colombia, Argentina and Ecuador do not restrict the sample for this question.

Table 10. Parental Time Investment in Children's Recreational Care
(Average number of hours per week)

Country	Mother's Educational Level		
	Less than primary	Less than secondary	Complete secondary
	(1)	(2)	(3)
Colombia	1.94	2.82	4.10
	(0.14)	(0.11)	(0.15)
Uruguay	8.76	12.06	12.51
	(3.63)	(1.03)	(0.97)

Source: Authors' calculations based on the Time Use Surveys of Colombia (2012-2013), Ecuador (2012), Peru (2010).

Note: Standard errors of the mean are presented in parenthesis. The categories are defined as: less than primary (includes no education); less than secondary (includes complete primary and some secondary); and complete secondary (includes higher education). The recreational activity included in all Time Use Surveys is play with the child. Mexico and Uruguay also consider taking a walk with the child. The question for Peru and Ecuador takes into account the time reading to the child. There are blank spaces because the sample used in every country varies according to the question of the Time Use Survey. In the case of Peru, is focused on children from 0-17. For Colombia, this question is only asked to households with children between 0-5 years. Uruguay and Ecuador focused the question only on children from 0-12 years.

Table 11. Parental Time Investment in Children's Travel Care: Taking Children to School
(Average number of hours per week)

Country	Mother's Educational Level		
	Less than primary	Less than secondary	Complete secondary
	(1)	(2)	(3)
Colombia	0.15	0.27	0.37
	(0.02)	(0.03)	(0.02)
Ecuador	2.33	3.81	3.90
	(0.12)	(0.11)	(0.13)
Mexico	0.88	1.41	2.05
	(0.06)	(0.07)	(0.06)
Uruguay	0.67	1.31	1.48
	(0.31)	(0.13)	(0.17)

Source: Authors' calculations based on the Time Use Surveys of Colombia (2012-2013), Ecuador (2012), Mexico (2009), and Uruguay (2013).

Note: Standard errors of the mean are presented in parenthesis. The categories are defined as: less than primary (includes no education); less than secondary (includes complete primary and some secondary); and complete secondary (includes higher education). The sample used in every country varies according to the question of the Time Use Survey. For Mexico, this question is only asked to households with children between 0-15 years. Uruguay focused the question only on children from 0-12 years. Colombia and Ecuador do not restrict the sample for this question (all households with children are included).

Table 12. Parental Time Preparing meals by Mother's Education Level
(Average number of hours per week)

Country	Mother's educational level		
	Less than primary	Less than secondary	Complete secondary
	(1)	(2)	(3)
Argentina	35.37	38.36	36.09
	(2.57)	(0.79)	(0.64)
Colombia	18.95	18.20	13.09
	(0.27)	(0.18)	(0.18)
Ecuador	19.40	20.60	19.36
	(0.35)	(0.27)	(0.37)
Guatemala	16.18	14.72	11.76
	(0.35)	(0.27)	(0.33)
Mexico	24.06	22.36	20.08
	(0.53)	(0.36)	(0.21)
Peru	23.01	21.34	16.17
	(0.71)	(0.66)	(0.37)
Uruguay	15.01	14.83	13.37
	(1.51)	(0.40)	(0.50)

Source: Authors' calculations based on the Time Use Surveys of Argentina (2013), Colombia (2012-2013), Ecuador (2012), Guatemala (2011), Mexico (2009), Peru (2010), and Uruguay (2013).

Note: Standard errors of the mean are presented in parenthesis. This question is asked to all households in the sample. In the cases of Peru, Mexico, Colombia and Ecuador the preparation of meals includes: time spent cooking; setting the table; washing the dishes; and delivering food to household members that are at work, school, etc. For Argentina the question includes other activities: cleaning the house, doing laundry and going grocery shopping. In Guatemala, the question refers only to the time spent cooking. Uruguay's survey includes the time spent cooking, setting the table and washing the dishes.

Table 13. Parental Time Spent in Child Care by Subgroups within Peru
(Average number of hours per week)

	All child care	Basic child care	Educational child care
All mothers (n=2297)	10.89	6.22	3.22
All fathers (n=1965)	5.11	1.27	2.40
Working mothers (n=1542)	8.41	4.54	2.67
Working fathers (n=1923)	5.06	1.24	2.38
Nonworking mothers (n=755)	16.14	9.79	4.39
Nonworking fathers (n=42)	6.91	2.42	2.88
Married working mothers (n=1271)	8.91	4.86	2.76
Married working fathers (n=1868)	5.09	1.25	2.39
Married nonworking mothers (n=724)	16.48	9.97	4.51
Married nonworking fathers (n=710)	7.10	2.49	2.96
Unmarried working mothers (n=271)	6.29	3.19	2.30
Unmarried working fathers (n=55)	4.07	1.00	2.20
Unmarried nonworking mothers (n=31)	8.63	5.81	1.95
Unmarried nonworking fathers (n=0)	-	-	-
Mothers with children under 5 (n=879)	21.16	13.81	4.70
Fathers with children under 5 (n=790)	8.05	2.39	3.29

Source: Authors' calculations based on the Peruvian Time Use Survey of 2010.
Note: Basic care activities involve feeding, grooming and taking care of the child. The parental time investment in children's skill formation comprises the time spent helping them with homework and reading/playing with the child.

Table 14. Parental Time Spent in Child Care by Subgroups within Mexico
(Average number of hours per week)

	All child care	Basic child care	Educational child care	Travel child care
All mothers (n=7622)	21.19	17.42	2.28	1.49
All fathers (n=6620)	6.17	4.78	0.85	0.54
Working mothers (n=3321)	18.50	15.04	2.14	1.32
Working fathers (n=6090)	6.10	4.75	0.82	0.53
Nonworking mothers (n=4301)	23.24	19.23	2.39	1.62
Nonworking fathers (n=530)	7.06	5.16	1.17	0.73
Married working mothers (n=546)	21.42	18.08	1.93	1.41
Married working fathers (n=1360)	6.20	5.08	0.72	0.40
Married nonworking mothers (n=983)	26.12	22.43	2.18	1.51
Married nonworking fathers (n=131)	6.80	5.12	0.96	0.73
Unmarried working mothers (n=2775)	17.94	14.46	2.18	1.30
Unmarried working fathers (n=4719)	6.05	4.64	0.85	0.56
Unmarried nonworking mothers (n=3318)	22.35	18.25	2.45	1.65
Unmarried nonworking fathers (n=398)	7.09	5.11	1.25	0.73
Mothers with children under 5 (n=2800)	34.11	30.00	2.35	1.76
Fathers with children under 5 (n=2589)	8.17	6.81	0.82	0.54

Source: Authors' calculations based on the Mexican Time Use Survey of 2009.
Note: Basic care activities involve feeding, grooming and taking care of the child. The parental time investment in children's skill formation comprises helping the child with homework. Travel child care includes the time spent taking a child to school and to a medical consultation.

Table 15. Parental Time Spent in Child Care by Subgroups within Colombia
(Average number of hours per week)

	All child care	Basic child care	Educational child care	Recreational child care	Travel child care
All mothers (n=17519)	6.82	3.15	1.11	2.16	0.40
All fathers (n=5826)	6.38	0.93	0.81	4.02	0.62
Working mothers (n=8773)	5.39	2.37	1.06	1.58	0.38
Working fathers (n=5320)	6.34	0.88	0.78	4.08	0.60
Nonworking mothers (n=8746)	8.16	3.88	1.15	2.70	0.42
Nonworking fathers (n=506)	6.79	1.52	1.23	3.28	0.76
Married working mothers (n=6228)	6.01	2.68	1.09	1.85	0.39
Married working fathers (n=5137)	6.49	0.89	0.77	4.22	0.60
Married nonworking mothers (n=7856)	8.38	3.98	1.13	2.84	0.42
Married nonworking fathers (n=487)	6.92	1.53	1.21	3.40	0.77
Unmarried working mothers (n=2545)	3.71	1.53	0.97	0.86	0.36
Unmarried working fathers (n=183)	2.44	0.54	0.93	0.42	0.56
Unmarried nonworking mothers (n=890)	5.96	2.88	1.29	1.35	0.44
Unmarried nonworking fathers (n=19)	3.17	1.21	1.62	-	0.33
Mothers with children under 5 (n=6143)	14.40	7.15	1.11	5.68	0.45
Fathers with children under 5 (n=3276)	8.97	1.34	0.50	6.71	0.41

Source: Authors' calculations based on the Colombian Time Use Survey of 2012-2013.
Note: Basic care activities involve feeding and grooming the child. The parental time investment in children's skill formation comprises reading to the child and helping them with their homework. Recreational care takes into account the time playing with the child. Travel child care includes the time spent taking a child to school, to a medical consultation, and to a cultural or social event.

Table 16. Parental Time Spent in Child Care by Subgroups within Ecuador
(Average number of hours per week)

	All child care	Basic child care	Educational child care	Travel child care
All mothers (n=11240)	14.34	8.69	5.00	0.65
All fathers (n=9488)	3.43	1.40	1.75	0.28
Working mothers (n=5644)	12.30	7.35	4.39	0.56
Working fathers (n=9224)	3.37	1.38	1.72	0.26
Nonworking mothers (n=5596)	16.23	9.93	5.56	0.74
Nonworking fathers (n=264)	5.66	2.15	2.75	0.77
Married working mothers (n=4242)	13.16	8.07	4.52	0.57
Married working fathers (n=8852)	3.30	1.34	1.70	0.26
Married nonworking mothers (n=5194)	16.65	10.24	5.66	0.75
Married nonworking fathers (n=249)	5.85	2.25	2.79	0.81
Unmarried working mothers (n=1402)	9.66	5.13	4.00	0.53
Unmarried working fathers (n=372)	5.09	2.36	2.40	0.34
Unmarried nonworking mothers (n=402)	11.01	6.06	4.29	0.66
Unmarried nonworking fathers (n=15)	2.34	0.28	2.00	0.07
Mothers with children under 5 (n=4241)	25.99	18.26	6.83	0.90
Fathers with children under 5 (n=3773)	5.39	2.61	2.45	0.33

Source: Authors' calculations based on the Ecuadorian Time Use Survey of 2012.
Note: Basic care activities involve feeding, grooming and taking care of the child. The parental time investment in children's skill formation comprises helping the child with homework and reading to them. Travel child care includes the time spent taking a child to school, to a social/cultural event, and to a medical consultation.

Table 17. Parental Time Spent in Child Care by Subgroups within Uruguay
(Average number of hours per week)

	All child care	Basic child care	Educational child care	Recreational care	Travel child care
All mothers (n=1078)	15.91	6.51	1.09	6.98	1.34
All fathers (n=880)	8.84	1.85	0.44	5.99	0.57
Working mothers (n=764)	13.70	5.63	1.07	5.95	1.06
Working fathers (n=847)	8.72	1.76	0.42	6.00	0.55
Nonworking mothers (n=314)	20.91	8.50	1.15	9.30	1.96
Nonworking fathers (n=33)	12.00	4.31	0.85	5.74	1.10
Married working mothers (n=35)	11.25	6.07	1.34	2.94	0.91
Married working fathers (n=4)	8.10	3.59	0.77	3.45	0.29
Married nonworking mothers (n=7)	8.43	1.49	3.35	2.61	0.97
Married nonworking fathers (n=0)	-	-	-	-	-
Unmarried working mothers (n=729)	13.79	5.61	1.06	6.06	1.06
Unmarried working fathers (n=843)	8.73	1.75	0.42	6.01	0.56
Unmarried nonworking mothers (n=307)	21.11	8.61	1.11	9.41	1.98
Unmarried nonworking fathers (n=33)	12.00	4.31	0.85	5.74	1.10
Mothers with children under 5 (n=361)	26.87	12.97	0.40	11.74	1.76
Fathers with children under 5 (n=329)	14.56	3.51	0.22	10.12	0.72

Source: Authors' calculations based on the Uruguayan Time Use Survey of 2013.
Note: Basic care activities involve feeding, grooming and taking care of the child. The parental time investment in children's skill formation comprises helping the child with homework. Recreational care considers the time spent taking the child on a walk. Travel child care includes the time spent taking a child to school and to a medical appointment.

Table 18. Time Spent in Total Child Care for Mothers in Peru by Educational Attainment
(Average hours per week)

Educational attainment	Fraction married	Fraction working	Total market work	Number of children	Hours per week spent in total child care		
					All	Nonworking	Working
Less than primary (n=640)	0.82	0.68	22.5	2.9	7.1	10.0	5.8
Primary completed (n=611)	0.87	0.64	20.8	2.6	11.1	16.8	8.0
Secondary completed (n=806)	0.85	0.65	24.2	2.2	11.0	16.4	8.3
University completed (n=130)	0.80	0.78	28.9	2.1	8.9	11.2	8.4

Source: Authors' calculations based on the Peruvian Time Use Survey of 2010.
Note: Samples include all women who identified themselves as household head or spouse and have at least one child under the age of 18. The individual is identified as married if they live with their partner. Total market work includes time spent at main job, traveling to work, and looking for work. Total child considers basic care and skill formation activities.

Table 19. Time Spent in Total Child Care for Mothers in Mexico by Educational Attainment (Average hours per week)

Educational attainment	Fraction married	Fraction working	Total market work	Number of children	Hours per week spent in total child care		
					All	Nonworking	Working
Less than primary (n=1431)	0.85	0.29	11.4	3.0	13.3	13.5	12.7
Primary completed (n=1784)	0.88	0.36	15.3	2.6	20.9	22.8	17.5
Secondary completed (n=3969)	0.88	0.48	20.7	2.2	24.0	27.7	19.9
University completed (n=443)	0.87	0.75	31.8	2.0	22.5	31.8	19.4

Source: Authors' calculations based on the Mexican Time Use Survey of 2009.
Note: Samples include all women who identified themselves as household head or spouse and have at least one child under the age of 18. The individual is identified as married if they live with their partner. Total market work includes time spent at main job, traveling to work, and looking for work. Total child considers basic care, skill formation, and travel care activities.

**Table 20. Time Spent in Total Child Care for Mothers in Colombia
by Educational Attainment (Average hours per week)**

Educational attainment	Fraction married	Fraction working	Total market work	Number of children	Hours per week spent in total child care		
					All	Nonworking	Working
Less than primary (n=2881)	0.82	0.38	14.6	2.7	4.5	5.2	3.3
Primary completed (n=5878)	0.81	0.42	18.3	2.4	6.1	7.3	4.3
Secondary completed (n=2141)	0.80	0.66	31.1	1.8	8.6	11.9	6.7
University completed (n=2628)	0.82	0.73	32.1	1.7	7.9	10.7	6.8

Source: Authors' calculations based on the Colombian Time Use Survey of 2012-2013.
Note: Samples include all women who identified themselves as household head or spouse and have at least one child under the age of 18. The individual is identified as married if they live with their partner. Total market work includes time spent at main job, traveling to work, and looking for work. Total child considers basic care, skill formation, recreational, and travel care activities.

**Table 21. Time Spent in Total Child Care for Mothers in Ecuador
by Educational Attainment (Average hours per week)**

Educational attainment	Fraction married	Fraction working	Total market work	Number of children	Hours per week spent in total child care		
					All	Nonworking	Working
Less than primary (n=40)	0.09	0.59	14.1	2.9	12.4	12.3	12.4
Primary completed (n=653)	0.03	0.62	21.8	2.2	16.04	21.8	12.5
Secondary completed (n=182)	0.03	0.76	28.9	1.8	14.2	16.9	13.3
University completed (n=203)	0.01	0.90	34.0	1.8	17.6	24.0	16.9

Source: Authors' calculations based on the Uruguayan Time Use Survey of 2013.
Note: Samples include all women who identified themselves as household head or spouse and have at least one child under the age of 18. The individual is identified as married if they live with their partner. Total market work includes time spent at main job, traveling to work, and looking for work. Total child considers basic care, skill formation, recreational and travel care activities.

Table 22. Time Spent in Total Child Care for Women in Uruguay
by Educational Attainment (Average hours per week)

Educational attainment	Fraction married	Fraction working	Total market work	Number of children	Hours per week spent in total child care		
					All	Nonworking	Working
Less than primary (n=1993)	0.82	0.44	18.4	3.1	10.7	12.0	9.1
Primary completed (n=5600)	0.85	0.45	19.5	2.7	15.0	16.7	12.7
Secondary completed (n=3160)	0.84	0.50	22.4	2.2	15.4	17.7	13.1
University completed (n=566)	0.85	0.81	36.4	2.0	13.3	16.7	12.5

Source: Authors' calculations based on the Ecuadorian Time Use Survey of 2012.
Note: Samples include all women who identified themselves as household head or spouse and have at least one child under the age of 18. The individual is identified as married if they live with their partner. Total market work includes time spent at main job, traveling to work, and looking for work. Total child considers basic care, skill formation, and travel care activities.

Table 23. Peru: Correlates of Parental Time Spent on Basic Child Care, by Component

| | Dependent variable: Time spent on | | | |
| | Total | Feeding | Grooming | Caring |
	(1)	(2)	(3)	(4)
Two children	-0.462	0.168	0.021	-0.651**
	[0.435]	[0.223]	[0.094]	[0.318]
Three children	-1.108**	-0.168	-0.049	-0.890**
	[0.519]	[0.260]	[0.104]	[0.373]
Four children	-1.366**	0.035	-0.026	-1.375***
	[0.618]	[0.392]	[0.146]	[0.375]
Five or more	-1.507	0.021	-0.192	-1.336**
children	[0.995]	[0.718]	[0.214]	[0.537]
Single mother	-1.352***	-0.174	-0.188*	-0.990***
	[0.369]	[0.187]	[0.102]	[0.230]
Single father	-9.793***	-0.864	-1.089**	-7.840**
	[3.253]	[1.468]	[0.536]	[3.140]
Number of	0.504	0.094	-0.069	0.479**
adult women	[0.375]	[0.215]	[0.097]	[0.233]
Grandmother	0.067	-0.109	0.158	0.018
present	[0.775]	[0.428]	[0.209]	[0.483]
Urban	0.718*	-0.356	0.132	0.942***
	[0.415]	[0.262]	[0.097]	[0.308]
Mom age: 21-30	-5.579*	0.287	-0.269	-5.597*
	[3.210]	[1.426]	[0.510]	[3.087]
31-40	-6.437**	0.059	-0.451	-6.045*
	[3.190]	[1.427]	[0.517]	[3.111]
41-50	-7.473**	-0.357	-0.693	-6.424**
	[3.197]	[1.436]	[0.524]	[3.122]
51-60	-7.629**	-0.457	-0.731	-6.441**
	[3.186]	[1.428]	[0.521]	[3.121]
61+	-10.543***	-1.637	-1.136*	-7.770**
	[3.859]	[1.810]	[0.636]	[3.203]
Primary ed.	-0.599	-0.304	0.061	-0.355
	[0.480]	[0.295]	[0.112]	[0.297]
Secondary	0.080	-0.052	0.099	0.033
	[0.446]	[0.242]	[0.098]	[0.331]
Tertiary	-0.746	-0.144	0.116	-0.719*
	[0.715]	[0.403]	[0.175]	[0.425]

Table 23., continued

	Dependent variable: Time spent on			
	Total	Feeding	Grooming	Caring
	(1)	(2)	(3)	(4)
Child's age: 3-5	-10.582***	-8.033***	-1.105***	-1.444***
	[0.744]	[0.454]	[0.165]	[0.494]
6-11	-15.734***	-9.289***	-2.671***	-3.774***
	[0.748]	[0.464]	[0.166]	[0.486]
12-17	-17.218***	-9.148***	-3.139***	-4.931***
	[0.807]	[0.475]	[0.178]	[0.528]
Child in school	-0.838**	-0.119	-0.124	-0.594*
	[0.381]	[0.139]	[0.092]	[0.316]
Boy	-0.278	-0.139	-0.048	-0.092
	[0.330]	[0.186]	[0.076]	[0.233]
Constant	26.531***	10.134***	3.985***	12.412***
	[3.141]	[1.390]	[0.499]	[3.099]
N	2,410	2,410	2,410	2,410
adj. R^2	0.486	0.429	0.371	0.173
P-value	0.010	0.638	0.097	0.029

Note: Robust standard errors in brackets clustered at the primary sample unit. Child's age and school enrollment refer to the youngest child. The omitted categories are families with one child (family size), two-headed households, less than completed primary schooling, children aged between 0-2. The p-value refers to the null hypothesis of equality on the coefficient for single fathers and mothers.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 24. Peru: Correlates of Parental Time Spent on Educational Child Care, by Component

	Dependent variable: Time spent on		
	All	Reading to the child	Helping with homework
	(1)	(2)	(3)
Two children	0.509*	-0.376**	0.885***
	[0.263]	[0.190]	[0.178]
Three children	0.226	-0.508**	0.735***
	[0.300]	[0.220]	[0.201]
Four children	-0.341	-0.946***	0.605**
	[0.384]	[0.286]	[0.251]
Five or more children	-1.021**	-1.713***	0.692**
	[0.472]	[0.352]	[0.307]
Single mother	-1.981***	-1.240***	-0.741***
	[0.220]	[0.138]	[0.157]
Single father	-1.348	-2.646**	1.298***
	[1.111]	[1.058]	[0.386]
Number of adult women	-0.077	0.574***	-0.651***
	[0.286]	[0.216]	[0.173]
Grandmother present	0.172	-0.452	0.624*
	[0.501]	[0.410]	[0.355]
Urban	0.309	0.053	0.255
	[0.282]	[0.201]	[0.175]
Mom age: 21-30	0.780	-1.437	2.218***
	[1.050]	[1.038]	[0.259]
31-40	-0.038	-1.829*	1.791***
	[1.054]	[1.049]	[0.261]
41-50	-0.712	-2.080**	1.368***
	[1.084]	[1.058]	[0.302]
51-60	-1.371	-2.265**	0.894***
	[1.080]	[1.058]	[0.305]
61+	-1.795	-2.714**	0.919*
	[1.343]	[1.182]	[0.470]
Primary ed.	0.557**	0.126	0.431**
	[0.245]	[0.174]	[0.177]
Secondary	1.853***	0.877***	0.976***
	[0.255]	[0.168]	[0.194]
Tertiary	2.954***	1.302***	1.652***
	[0.602]	[0.439]	[0.383]

Table 24., continued

	Dependent variable: Time spent on		
	All	Reading to the child	Helping with homework
	(1)	(2)	(3)
Child's age: 3-5	-0.586	-1.086***	0.500**
	[0.377]	[0.284]	[0.251]
6-11	-2.081***	-2.601***	0.520*
	[0.454]	[0.313]	[0.293]
12-17	-5.310***	-3.845***	-1.465***
	[0.459]	[0.341]	[0.276]
Child in school	0.268	-0.511***	0.779***
	[0.283]	[0.174]	[0.210]
Boy	-0.165	-0.305**	0.141
	[0.193]	[0.144]	[0.128]
Constant	6.327***	7.081***	-0.754***
	[1.022]	[1.019]	[0.224]
N	2,410	2,410	2,410
adj. R^2	0.273	0.249	0.168
P-value	0.582	0.194	0.000

Note: Robust standard errors in brackets clustered at the primary sample unit. Child's age and school enrollment refer to the youngest child. The omitted categories are families with one child (family size), two-headed households, less than completed primary schooling, children aged between 0-2. The p-value refers to the null hypothesis of equality on the coefficient for single fathers and mothers.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 25. Peru: Correlates of Parental Time Spent on Home Production, by Component

	Dependent variable: Time spent on home production
Two children	1.438***
	[0.553]
Three children	2.493***
	[0.643]
Four children	2.438**
	[0.954]
Five or more children	2.840**
	[1.178]
Single mother	-5.480***
	[0.517]
Single father	-15.760***
	[2.014]
Number of adult women	-3.135***
	[0.643]
Grandmother present	1.081
	[1.013]
Urban	-7.885***
	[0.762]
Mom age: 21-30	-1.252
	[1.772]
31-40	-1.934
	[1.755]
41-50	-1.430
	[1.834]
51-60	-0.628
	[2.017]
61+	3.174
	[3.806]
Primary ed.	-1.163*
	[0.652]
Secondary	-3.376***
	[0.654]
Tertiary	-5.253***
	[0.949]

Table 25., continued

	Dependent variable: Time spent on home production
Child's age: 3-5	0.967
	[0.765]
6-11	0.221
	[0.886]
12-17	-0.997
	[0.934]
Child in school	1.007
	[0.676]
Boy	0.111
	[0.406]
Constant	27.933***
	[1.849]
N	2,410
adj. R^2	0.263
P-value	0.000

Note: Robust standard errors in brackets clustered at the primary sample unit. Child's age and school enrollment refer to the youngest child. The omitted categories are families with one child (family size), two-headed households, less than completed primary schooling, children aged between 0-2. The p-value refers to the null hypothesis of equality on the coefficient for single fathers and mothers.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 26. Mexico: Correlates of Parental Time Spent on Basic Child Care, by Component

	Dependent variable: Time spent on			
	Total	Feeding	Grooming	Caring
	(1)	(2)	(3)	(4)
Two children	1.290	-0.259*	0.078	2.959***
	[0.924]	[0.144]	[0.081]	[0.843]
Three children	0.333	-0.197	0.032	3.979***
	[1.098]	[0.150]	[0.089]	[1.024]
Four children	-1.193	-0.311	0.071	3.874***
	[1.611]	[0.201]	[0.140]	[1.497]
Five or more	-3.495*	-0.555***	0.025	2.394
children	[1.821]	[0.215]	[0.151]	[1.682]
Single mother	1.169	-0.486***	-0.269***	-3.499***
	[0.798]	[0.080]	[0.053]	[0.720]
Single father	13.758***	-2.753**	-0.646*	1.524
	[4.249]	[1.103]	[0.349]	[3.761]
Number of	-1.270	0.035	-0.055	-3.037***
adult women	[0.942]	[0.110]	[0.058]	[0.858]
Grandmother	-1.270	0.035	-0.055	-3.037***
present	[0.942]	[0.110]	[0.058]	[0.858]
Urban	3.760**	0.095	0.022	-0.777
	[1.651]	[0.115]	[0.076]	[1.600]
Mom age: 21-30	5.440	-1.644	0.478	7.009**
	[3.501]	[1.086]	[0.306]	[3.041]
31-40	5.440	-1.644	0.478	7.009**
	[3.501]	[1.086]	[0.306]	[3.041]
41-50	0.217	-1.899*	0.022	4.669
	[3.603]	[1.086]	[0.313]	[3.148]
51-60	-1.243	-1.994*	-0.006	3.099
	[3.617]	[1.087]	[0.318]	[3.116]
61+	-3.912	-2.281**	-0.315	-0.487
	[4.050]	[1.120]	[0.367]	[3.282]
Primary ed.	2.382*	-0.093	-0.100	1.880*
	[1.214]	[0.131]	[0.089]	[1.106]
Secondary	6.517***	-0.027	-0.050	5.348***
	[1.306]	[0.116]	[0.085]	[1.237]
Tertiary	8.359***	0.631**	0.369**	3.892**
	[2.072]	[0.283]	[0.161]	[1.934]

Table 26., continued

	Dependent variable: Time spent on			
	Total	Feeding	Grooming	Caring
	(1)	(2)	(3)	(4)
Child's age: 3-5	-9.068***	-3.482***	-1.090***	-4.273***
	[1.473]	[0.218]	[0.139]	[1.368]
6-11	-19.926***	-6.419***	-4.300***	-9.787***
	[1.739]	[0.216]	[0.140]	[1.645]
12-17	-29.591***	-6.422***	-4.243***	-19.651***
	[1.752]	[0.222]	[0.140]	[1.646]
Child in school	-1.618	-0.395***	-0.296***	-0.151
	[1.268]	[0.120]	[0.088]	[1.169]
Boy	0.317	0.092	-0.112*	0.695
	[0.793]	[0.089]	[0.058]	[0.734]
Constant	6.099*	8.859***	4.566***	16.130***
	[3.615]	[1.077]	[0.305]	[3.172]
N	7728	7728	7728	7728
adj. R^2	0.147	0.340	0.422	0.084
P-value	0.000	0.000	0.000	0.000

Standard errors in brackets
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 27. Mexico: Correlates of Parental Time Spent on Educational Child Care, by Component

	Dependent variable: Time spent on
	All[1]
	(1)

Two children	1.256***
	[0.106]
Three children	1.643***
	[0.132]
Four children	1.276***
	[0.168]
Five or more children	1.572***
	[0.236]
Single mother	-0.775***
	[0.102]
Single father	0.786**
	[0.329]
Number of adult women	-1.003***
	[0.108]
Grandmother present	0.398**
	[0.186]
Urban	0.533***
	[0.110]
Mom age: 21-30	1.678***
	[0.189]
31-40	1.525***
	[0.208]
41-50	0.955***
	[0.233]
51-60	0.721***
	[0.234]
61+	0.626*
	[0.324]
Primary ed.	0.622***
	[0.123]
Secondary	1.344***
	[0.128]
Tertiary	1.913***
	[0.230]

Table 27., continued

	Dependent variable: Time spent on
	All[1]
	(1)
Child's age: 3-5	1.028***
	[0.147]
6-11	1.283***
	[0.198]
12-17	-1.617***
	[0.182]
Child in school	0.635***
	[0.136]
Boy	0.036
	[0.083]
Constant	-1.135***
	[0.206]
N	7728
adj. R^2	0.195
P-value	0.000

Standard errors in brackets
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$
1. Only includes time spent helping with homework.

Table 28. Mexico: Correlates of Parental Time Spent on Home Production, by Component

	Dependent variable: Time spent on home production
Two children	1.489[***]
	[0.332]
Three children	1.489[***]
	[0.332]
Four children	1.489[***]
	[0.332]
Five or more children	5.359[***]
	[0.826]
Single mother	-5.424[***]
	[0.341]
Single father	-15.633[***]
	[1.405]
Number of adult women	-1.787[***]
	[0.412]
Grandmother present	-1.163[*]
	[0.642]
Urban	-4.420[***]
	[0.474]
Mom age: 21-30	0.403
	[1.000]
31-40	1.067
	[1.029]
41-50	2.574[**]
	[1.061]
51-60	2.343[**]
	[1.190]
61+	0.829
	[1.817]
Primary ed.	-0.695
	[0.499]
Secondary	-1.245[**]
	[0.493]
Tertiary	-3.467[***]
	[0.714]

Table 28., continued

	Dependent variable: Time spent on home production
Child's age: 3-5	0.224
	[0.421]
6-11	0.224
	[0.421]
12-17	-0.725
	[0.656]
Child in school	0.775[*]
	[0.460]
Boy	0.358
	[0.256]
Constant	23.456[***]
	[1.164]
N	23.456[***]
adj. R^2	[1.164]
P-value	0.000

Standard errors in brackets
[*] $p < 0.10$, [**] $p < 0.05$, [***] $p < 0.01$

Table 29. Colombia: Correlates of Parental Time Spent on Basic Child Care, by Component

	Dependent variable: Time spent on		
	Total	Feeding	Grooming
	(1)	(2)	(3)
Two children	-1.886***	-0.389***	-0.244***
	[0.173]	[0.063]	[0.035]
Three children	-1.886***	-0.389***	-0.244***
	[0.173]	[0.063]	[0.035]
Four children	-3.364***	-0.628***	-0.422***
	[0.333]	[0.112]	[0.062]
Five or more children	-3.364***	-0.628***	-0.422***
	[0.333]	[0.112]	[0.062]
Single mother	3.654***	-0.387***	-0.140***
	[0.166]	[0.052]	[0.036]
Single father	9.930***	-1.420***	-0.897***
	[0.716]	[0.351]	[0.158]
Number of adult women	2.316***	0.018	0.012
	[0.200]	[0.058]	[0.036]
Grandmother present	1.010***	0.755***	0.323***
	[0.362]	[0.114]	[0.064]
Urban	4.350***	0.264***	-0.004
	[0.193]	[0.066]	[0.041]
Mom age: 21-30	-0.432	-0.776**	-0.319**
	[0.595]	[0.346]	[0.152]
31-40	-0.611	-0.918***	-0.395**
	[0.606]	[0.347]	[0.154]
41-50	-1.338**	-0.852**	-0.395**
	[0.624]	[0.347]	[0.154]
51-60	-2.110***	-0.835**	-0.381**
	[0.683]	[0.350]	[0.157]
61+	-4.239***	-1.378***	-0.632***
	[1.293]	[0.384]	[0.235]
Primary ed.	-0.433**	-0.005	-0.054*
	[0.172]	[0.058]	[0.032]
Secondary	2.053***	0.228**	-0.026
	[0.250]	[0.100]	[0.050]

Table 29., continued

	Dependent variable: Time spent on		
	Total	Feeding	Grooming
	(1)	(2)	(3)
Tertiary	3.917***	-0.058	-0.150***
	[0.231]	[0.081]	[0.052]
Child's age: 3-5	-4.238***	-3.485***	-0.748***
	[0.263]	[0.128]	[0.068]
6-11	-6.942***	-4.866***	-2.308***
	[0.329]	[0.132]	[0.069]
12-17	-7.323***	-5.091***	-2.591***
	[0.344]	[0.135]	[0.070]
Child in school	-1.463***	-0.657***	-0.445***
	[0.235]	[0.058]	[0.046]
Boy	-0.541***	0.002	-0.129***
	[0.144]	[0.051]	[0.029]
Constant	-9.873***	6.865***	3.878***
	[0.591]	[0.340]	[0.148]
N	19372	19372	19372
adj. R^2	0.192	0.286	0.282
P-value	0.000	0.000	0.000

Standard errors in brackets
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 30. Colombia: Correlates of Parental Time Spent on Educational Child Care, by Component

	Dependent variable: Time spent on		
	All	Reading to the child	Helping with homework
	(1)	(2)	(3)
Two children	0.107[*]	-0.046[***]	0.152[**]
	[0.064]	[0.017]	[0.061]
Three children	-0.023	-0.065[***]	0.042
	[0.076]	[0.020]	[0.073]
Four children	-0.293[***]	-0.116[***]	-0.177[*]
	[0.099]	[0.022]	[0.097]
Five or more children	-0.254[*]	-0.105[***]	-0.149
	[0.131]	[0.041]	[0.123]
Single mother	-0.254[*]	-0.105[***]	-0.149
	[0.131]	[0.041]	[0.123]
Single father	0.292[*]	0.035	0.258[*]
	[0.166]	[0.074]	[0.148]
Number of adult women	-0.107	-0.010	-0.097
	[0.066]	[0.014]	[0.065]
Grandmother present	-0.131	0.005	-0.136
	[0.092]	[0.015]	[0.091]
Urban	0.231[***]	0.037[**]	0.194[***]
	[0.059]	[0.015]	[0.056]
Mom age: 21-30	0.693[***]	0.010	0.683[***]
	[0.116]	[0.071]	[0.091]
31-40	0.671[***]	0.031	0.641[***]
	[0.126]	[0.072]	[0.103]
41-50	0.542[***]	0.039	0.503[***]
	[0.137]	[0.072]	[0.115]
51-60	0.451[***]	0.037	0.414[***]
	[0.146]	[0.072]	[0.126]
61+	1.279	0.008	1.271
	[1.036]	[0.073]	[1.034]
Primary ed.	-0.032	0.012	-0.043
	[0.055]	[0.014]	[0.053]
Secondary	0.344[***]	0.065[**]	0.279[***]
	[0.105]	[0.026]	[0.101]
Tertiary	0.453[***]	0.170[***]	0.283[***]
	[0.091]	[0.028]	[0.086]

Table 30., continued

	Dependent variable: Time spent on		
	All	Reading to the child	Helping with homework
	(1)	(2)	(3)
Child's age: 3-5	0.250***	-0.042	0.291***
	[0.082]	[0.037]	[0.071]
6-11	-0.119	-0.275***	0.156
	[0.109]	[0.032]	[0.103]
12-17	-1.305***	-0.294***	-1.011***
	[0.109]	[0.033]	[0.103]
Child in school	0.690***	-0.147***	0.836***
	[0.076]	[0.017]	[0.074]
Boy	-0.092*	-0.033**	-0.059
	[0.050]	[0.013]	[0.048]
Constant	0.438***	0.394***	0.044
	[0.111]	[0.068]	[0.087]
N	19372	19372	19372
adj. R^2	0.036	0.044	0.037
P-value	0.000	0.000	0.000

Table 31. Colombia: Correlates of Parental Time Spent on Home Production, by Component

	Dependent variable: Time spent on home production
Two children	1.254***
	[0.159]
Three children	2.124***
	[0.210]
Four children	2.314***
	[0.320]
Five or more children	2.639***
	[0.453]
Single mother	-4.182***
	[0.156]
Single father	-12.247***
	[0.602]
Number of adult women	-2.286***
	[0.191]
Grandmother present	0.068
	[0.345]
Urban	-4.090***
	[0.178]
Mom age: 21-30	-0.663
	[0.463]
31-40	-0.702
	[0.476]
41-50	0.090
	[0.497]
51-60	0.894
	[0.569]
61+	0.894
	[0.569]
Primary ed.	0.894
	[0.569]
Secondary	-1.852***
	[0.228]
Tertiary	-4.124***
	[0.213]

Table 31., continued

	Dependent variable: Time spent on home production
Child's age: 3-5	0.005
	[0.225]
6-11	0.005
	[0.225]
12-17	-0.359
	[0.314]
Child in school	0.360
	[0.228]
Boy	0.414***
	[0.134]
Constant	20.615***
	[0.465]
N	19372
adj. R^2	0.147
P-value	0.000

Standard errors in brackets
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$