# Differences between self-employed and employed mothers in balancing family and work responsibilities: Evidence from Latin American countries

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28 March 2017

# Differences between self-employed and employed mothers in balancing family and work responsibilities: Evidence from Latin American countries[*]

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*Abstract*
*In this paper, we analyze how self-employed and employed mothers in several Latin American countries allocate their time throughout the day in order to balance their family and work responsibilities. Using data from time-use surveys for Mexico (2009), Peru (2010), Panama (2011), Ecuador (2012) and Colombia (2012), we find that self-employed mothers devote less time to paid work and more time to unpaid work and child care, compared to employed mothers, in the five countries. Our results are consistent with the hypothesis that working mothers may want to decrease the number of hours they devote to paid work, and devote more time to their household responsibilities, and that self-employment may be used as a tool for this purpose. Thus, self-employment in Latin American countries may be seen as an instrument to improve the work-life balance of mothers.*

*Keywords:* self-employment; paid work, unpaid work, child care, Latin America

*JEL Codes:* D13, J13, J22

# 1.    Introduction

In this paper, we analize the differences in the time devoted by self-employed and employed mothers to paid work, unpaid work, and child care in five Latin American countries. One of the most important advances in Latin American countries during recent decades has been the increase of women in the labor market, which is reflected in an increase in female labor force participation rates in Latin American and Caribbean countries, which has grown from 40.5% in 1990 to 54.1% in 2014 (World Bank, 2017). This in turn has led to an increase in the proportion of women having their own source of income (Montaño 2010) and in the proportion women contribute to the household income (Mateo Díaz and Rodriguez-Chamussy, 2016). Despite this positive evidence, women continue to be comparatively more vulnerable to unemployment than men, with lower wages, and the increasing influx of women into the labor market in Latin American countries is concentrated in precarious, low paid, and low productivity jobs (Heller 2010; Mateo Diaz and Rodriguez-Chamussy 2013, 2016).

Furthermore, women still devote comparatively more time to unpaid work and caring (i.e., housework and care of family members) compared with men, in both developed and developing countries (Gershuny 2000; Newman 2002; Folbre 2006; Medeiros et al. 2007; Esplen 2009; Sevilla et al 2010; Anxo et al. 2011; Fisher and Robinson 2011; Gimenez-Nadal and Sevilla 2012, 2014; Öun 2013; Canelas and Salazar 2014; Grossbard et al 2014). As argued in Montaño (2010), there is a very marked division of labor between men and women in Latin American countries, reflected in a disproportionate unpaid workload for women in the household. Despite that women are increasingly working in the labor market, they are still responsible for the majority of unpaid work activities, which creates for women what has been called the "second shift" or "double-burden" (Hochschild and Machung, 1989; Schor 1991; Hochschild 1997; Gimenez-Nadal and Sevilla, 2011) and affects their daily happiness (Kahneman et al., 2004; Kahneman and Krueger 2006; Krueger 2007; Gimenez-Nadal and Molina 2015). Such conflicts between work and home obligations also affect the health of working women, which may have a negative influence on workplace performance (Netemeyer et al., 1996; Kossek and Ozeki, 1999; Allen et al., 2000; Grzywacz and Bass, 2003; Byron, 2005; Mesmer-Margnus and Viswesvaran 2005a, b).

Based on this evidence, several authors have proposed self-employment as a strategy to solve the conflict between work and family life for women (Stephens and Feldman, 1997; Arai, 2000; Georgellis and Wall, 2000; Walker and Webster, 2007; Kirkwood and

Tootell, 2008). For instance, self-employment may allow for better control over women's own working time, helping to reduce the work-family conflict (Arai, 2000; Beutell, 2007; Hyytinen and Ruskanen, 2007; Dawson et al., 2009; Gimenez-Nadal et al., 2012). Hence, mothers may choose to be self-employed in order to have greater flexibility in working hours, allowing them to to spend more time with their children (Presser, 1989; Conelly, 1992; Loscocoo, 1997; Caputo and Dolinsky, 1998; Boden 1999; Hundley 2000; Lombard 2007; Arai 2000; Gimenez-Nadal et al., 2012; Johansson-Sevä and Öun, 2015).

Within this framework, we analyze the time that employed and self-employed mothers in Latin American countries devote to paid and unpaid work, to provide evidence of the positive relationship between self-employment and a better work-life balance. To that end, we use data from time-use surveys for Mexico (2009), Peru (2010), Panama (2011), Ecuador (2012), and Colombia (2012), and analyze the time devoted to paid work, unpaid work, and child care by employed and self-employed mothers in these countries. We estimate a linear seemingly unrelated regressions (SUR) model for these three uses of time, and we observe in all five countries that self-employed mothers devote less time to paid work, and more time to unpaid work and child care, compared to employed mothers. These results are similar to prior studies carried out in developed countries that show self-employment for women as an option to combine paid work with household responsibilities (DeMartino and Barbato, 2003; Lombard 2007; Gimenez-Nadal et al 2012) and the positive relationship for women between self-employment and time devoted to child care (Conelly 1992; Edwards and Field-Hendrey, 1996; Caputo and Dolinsky, 1998; Boden 1999).

Our contribution to the literature is twofold. First, we contribute to the analysis of differences between self-employed and employed mothers in the uses of time, for five Latin-American countries. Our results suggest that self-employment may be used as a tool to reconcile domestic responsibilities with paid work, improving the work-life balance of working mothers. Second, we analyse data from five countries with different welfare regimes, in an attempt to extract common patterns in the time devoted to paid work, non-market work, and child care. The unpaid work obligations of women appear to negatively impact women's labor supply, and add to women's poorer education, health, and economic outcomes. However, unpaid work is also productive, as it provides services to the household, and is essential for family welfare.

The rest of the paper is organised as follows: Section 2 describes the data, Section 3 describes the empirical strategy and presents our results, and Section 4 concludes.

## 2. Data

We use the data obtained from the first independent time use surveys available from Mexico (2009), Peru (2010), Panama (2011), Ecuador (2012), and Colombia (2012).[1] These surveys provide us with information on individual time use, and represent the typical instrument used to analyse the time-allocation decisions of individuals (Aguiar and Hurst, 2007; Bianchi, 2000; Folbre et al. 2005; Gershuny, 2000; Gimenez-Nadal and Sevilla, 2012; Gimenez-Nadal and Molina 2015; Campaña et al 2016). The targeted population in these surveys are all members of households, aged 12 and older, for Mexico, Peru, and Ecuador, aged 15 and older for Panama, and aged 10 and older for Colombia. The first four surveys take as reference period the previous week, while for Colombia the reference period is the previous day.[2] All five surveys use a list of pre-coded activities, although an important characteristic of these particular surveys is that they do not allow for the consideration of simultaneous or "secondary" activities (activities done at the same time as the primary or main activity), which have been found to increase the amount of household production (Kalenkoski and Foster, 2015). It is important to consider secondary activities, given that there may be worker differentials in the ability for multitasking (Floro and Pichetpongsa 2010). Thus, the consideration of secondary activities could change the conclusions obtained in this research (Esquivel et al. 2008; Esquivel 2010).

Our sample is restricted to self-employed and employed mothers with children under 18, who are not students or retirees, with no other restrictions concerning the presence of other family members, civil status, or residence in rural/urban area.[3] For the definition of the time devoted to paid work, unpaid work, and child care as a primary activity we follow Gimenez-Nadal and Sevilla (2012). Paid work includes all the time spent working in the paid sector. Unpaid work includes any time spent in the preparation of meals,

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[1] These are the first surveys of this type in these five countries, since data was only previously available through other sources, such as integrated household surveys.

[2] The methodologies for the time use surveys used in this paper have been defined by the relevant institutes of statistics in each country: INEGI (National Institute of statistics and geography) in Mexico, INEI (National Institute of Statistics and Informatics) in Peru; INEC (General Comptroller of the Republic of Panama, National Institute of statistics and censuses) in Panama; INEC (National Institute of statistics and censuses) in Ecuador and DANE (National Administrative Department of statistics) in Colombia. Lists of activities based on the following classifications are used in the data collection: Mexico (CMAUT, Mexican classification of time use activities); Peru (ICATUS, classification international activities of use of time); Panama (The time use survey from Panama is not based on an international classification of activities; part of the questionnaire was largely based on labor market surveys and the census of population and housing.); Ecuador and Colombia (CAUTAL, classification of activities of the use of time for Latin America and the Caribbean). The surveys from Mexico, Peru, Ecuador, and Colombia are designed to be nationally representative, considering rural and urban areas, while the survey from Panama considers only national urban areas.

[3] The Time Use Survey of Peru does not provide information on whether or not individuals are retired, but we know that the legal age of retirement is 65 years (Superintendency of Banking and Insurance of Peru), and thus we assume that people younger than 65 are not retired.

cleaning, laundry, ironing, dusting, vacuuming, maintenance (including painting and decorating), time spent on the procurement of goods and services (that is, making purchases of groceries, shopping for items for the home), along with time spent on other productive activities at home, such as outdoor cleaning and vehicle repair. Child care includes the time devoted to activities such as breastfeeding, bathing, dressing, and taking a child to the doctor, as well as playing with children, reading stories, attending meetings/support activities and events at school, helping with or supervising homework, and taking to and picking up from school.[4] All the time devoted to these different categories is measured in hours per week for Mexico, Peru, Panama, and Ecuador, and hours per day for Colombia.

Table 1 shows the time devoted to paid work (Column (1)), unpaid work (Column (2)), and child care (Column (3) by working mothers in the five countries. We observe in the five countries that self-employed mothers devote less time to paid work, and more time to unpaid work, compared to employed mothers. In particular, we observe that self-employed mothers devote, relative to employed mothers, 7.13, 6.73, 11.04, 2.95 and 1.14 less hours to paid work in Mexico, Peru, Panama, Ecuador (hours per week in the four countries) and Colombia (hours per day), respectively, and 7.71, 7.39, 7.42, 8.09 and 1.16 more hours to unpaid work in Mexico, Peru, Panama, Ecuador (hours per week in the four countries) and Colombia (hours per day), respectively. Based on a t-type test, all these differences are statistically significant at the 99 percent level of confidence, given that the p-value of the test yields values lower than .01 in all cases. In contrast, the difference in the time devoted to child care between employed and self-employed mothers is statistically significant only in Colombia, with self-employed mothers devoting 0.08 more hours per day to child care than their employed counterparts.

From this evidence, it may be thought that self-employed mothers devote comparatively more time to unpaid work, and less time to paid work, but no differences are present in the time devoted to child care, which may not support the hypothesis that mothers may choose to be self-employed in order to have greater flexibility in working hours, allowing them to to spend more time with their children. However, in this analysis we do not control for other factors that may be affecting our results, and the evidence

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[4] Kahneman and Krueger (2006) and Krueger (2007) show that the time parents spend on children is an enjoyable activity that offers a different level of (experienced) utility compared to unpaid work, indicating that unpaid work and child care have a different meaning. Therefore, it is necessary that these activities are treated separately. See Appendix C for a description of all the activities included in the three categories.

presents a first descriptive analysis. In the following Sections, we analyze these relationships, controlling for other factors.

## 3. Empirical Strategy and Results

For the time devoted to paid work, unpaid work, and child care, we estimate linear regressions. Frazis and Stewart (2012) argue that linear models are preferred in the analysis of time allocation decisions, while Foster and Kalenkoski (2013) compare the use of linear and Tobit models in the analysis of the time devoted to child care activities, finding that the qualitative conclusions are similar for both estimation methods. Thus, we rely on linear models. We also consider that the time individuals spend in any activity (e.g., paid work) cannot be devoted to any of the other two activities. We cannot use individual time in any specific activity as an explanatory variable of other uses of time, since that would lead to endogeneity problems, and for this reason we estimate a Seemingly Unrelated Regression (SUR) on the time devoted to paid work, unpaid work, and child care.

For a given individual "$i$" in country "$k$" ($k=1,2,3,4,5$), let $PW_{ik}, NMW_{ik}, C_{ik}$ represent the hours that working mothers report performing paid work, unpaid work, and child care. $Self-employed_{ik}$ takes value "1" if respondent " $i$ " in country "$k$" is a self-employed mother and "0" otherwise, $x_{ik}$ is a vector of socio-demographic characteristics, and $\varepsilon_{pwik}, \varepsilon_{nmwik}, and\ \varepsilon_{cik}$ are the random variables representing unmeasured factors. We then estimate the following equations.

$$PW_{ik} = \alpha_{pw} + \beta_1 Self-employed_{ik} + \beta_2 x_{ik} + \varepsilon_{pwik} \quad (1)$$

$$NMW_{ik} = \alpha_{nmw} + \beta_1 Self-employed_{ik} + \beta_2 x_{ik} + \varepsilon_{nmwik} \quad (2)$$

$$C_{ik} = \alpha_c + \beta_1 Self-employed_{ik} + \beta_2 x_{ik} + \varepsilon_{cik} \quad (3)$$

We allow for correlations in the unobserved determinants of the activities by allowing the error terms to be jointly normally distributed, with no restrictions on the structure of these correlations. This specification accounts for the time constraint that may require individuals to spend more time on one activity and, therefore, less time on another. We additionally assume that the error components are independent across individuals:

$$
\begin{bmatrix} \varepsilon_{pwik} \\ \varepsilon_{nmwik} \\ \varepsilon_{cik} \end{bmatrix} \sim N \left( \begin{bmatrix} 0 \\ 0 \\ 0 \end{bmatrix} \begin{array}{ccc} \sigma^2_{pwik} & \rho_{pwiknmwik}\sigma_{pwik}\sigma_{nmwik} & \rho_{pwikcik}\sigma_{pwik}\sigma_{cik} \\ \rho_{nmwikpwik}\sigma_{nmwik}\sigma_{pwik} & \sigma^2_{nmwik} & \rho_{nmwikcik}\sigma_{nmwik}\sigma_{cik} \\ \rho_{cikpwik}\sigma_{cik}\sigma_{pwik} & \rho_{ciknmwik}\sigma_{cik}\sigma_{nmwik} & \sigma^2_{cik} \end{array} \right)
$$

The $x_{ik}$ (vector) includes standard household and individual characteristics (Sevilla et al., 2010; Gimenez-Nadal and Molina, 2013; Campaña et al., 2016), such as age, age squared, primary education (less than high school degree), secondary education (high school degree), and university education (more than high school degree), with primary education being the reference category, presence of partner (married/cohabiting), non-labour income (family), the (log) hourly predicted wage rate, the (log) hourly predicted wage rate squared, number of household members, number of children in the household (aged 0 to 4 years, aged 5 to 12 years, aged 13 to 17 years), whether the respondent is indigenous or not, living in a rural area or not, the sector composition in which the mothers work (reference primary sector) and the region of residence of the mothers. See Table A1 in the Appendix for summary statistics of the variables in the five countries.

Kaleonski et al. (2005) and Aguiar and Hurst (2007) show that age and age squared must be considered in order to account for the allocation of time over the life-cycle. For example, the time spent in child care varies as children grow, so we must control for age, and we expect an inverted U-shaped effect of age on child care time. Education is an important factor to consider because women with higher studies, for example, devote more time to child care and paid work (Guryan et al. 2008; Gimenez-Nadal and Sevilla, 2012; Campaña et al., 2017). Regarding the presence of partners, Mateo Díaz and Rodriguez-Chamussy (2016) show that unmarried women have higher labor-participation rates than married women. Non-labour income (family) may also affect the time working mothers devote to different activities, and Kalenkoski et al (2005) show that when household income increases, mothers reduce their time devoted to active child care.[5] With respect to wages, we include the predicted (log) hourly wage rate to control for income and substitution effects, and we also include the squared term to allow for non-linear effects. We cannot consider Panama here because this particular time-use survey

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[5]We obtain the non-labour income of the family for Mexico, Ecuador, and Colombia through the survey questions related to income earned from subsidies provided by government, rent of properties, financial investments, foreign remittances, and so forth. In the cases of Peru and Panama, we cannot consider the non-labour incomes of the family because those time-use surveys do not provide that information.

does not provide information about wages.[6] Given that we are using generated regressors in our models (i.e., predicted wages), we follow Pagan (1984), Murphy and Topel (1985), Gimenez Nadal and Molina (2013, 2015) and Campaña et al. (2016) and bootstrap the standard errors of such regressions. In doing so, we carry out 1,000 replications, where in each replication a random sample with replacement is drawn from the total number of observations.

The number of family members may influence the time devoted to the different activities. For example, the presence of other female relatives in the household increases maternal labor supply (Hallman et al. 2005). Based on Campaña et al. (2016), with respect to the age of children, we consider three groups: 0–4 years, 5–12 years, and 13-17. While children are young, parents need to spend more time in activities such as bathing, dressing, and taking them to the doctor; as the children grow up, parents devote more time to activities like reading and teaching (Silver 2000; Miller and Mulvey, 2000)

Racial origin, living in a rural or urban area, and region of residence may also influence the time devoted to different activities. To measure racial differences, we consider whether the working mother is indigenous, or not.[7] (We do not have racial origin information for Panama.) Regarding geographical differences, living in a rural area involves limited access to education, and other services, such as healthcare (Canelas and Salazar, 2014), which could influence the time devoted to child care activities.[8] For Panama, only urban areas were considered, so this variable is not considered in the regressions of Panama. For the region of residence of women, in Mexico we consider four regions (Centre, West-Centre, North, and South-South-East); in Peru, four regions (Rest of the Coast, Sierra, Selva, and Lima); in Panama, three regions (San Miguelito and Panama districts, West-East, and rest of the district of Panama and the rest of the country); in Ecuador, three regions (Sierra, Costa, and Amazon), and in Colombia, six regions (Atlantic, Central, Eastern, Pacific, Bogota, and San Andres). The reference

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[6]To calculate the hourly predicted wages, we use the Heckman technique (1979) and we include all women who have answered all the sections of the Time Use survey in Mexico, Peru, Ecuador, and Colombia and are of legal working-age. Futhermore, we add '1' to the predicted value in order to have values for all the women. This procedure is also performed by Gimenez-Nadal and Molina (2013) in their study for Spain and the UK, and Campaña et al. (2016) in their study for Mexico, Peru, Colombia, and Ecuador. Results of estimated regressions are shown in Table A2 of Appendix A.

[7]For Mexico and Peru, the time-use surveys provide information on whether the respondent speaks an indigenous language. We assign value '0' to the indigenous variable if the working mother does not speak an indigenous language, and value '1' otherwise. In the case of Ecuador and Colombia, respondents are asked to identify themselves according to their indigenous origin, so that we assign '0' to the indigenous variable if the working mother does not identify herself as indigenous, and value '1' if she is identified as such.

[8]It is important to note that for Mexico, Peru, and Ecuador, time-use surveys were conducted in both urban and rural areas. For Colombia, the time use survey asks respondents if they live in a municipality or not, so the rural variable in Colombia refers to not living in a municipality.

category for Mexico is the Centre region, for Peru, the Selva region, for Panama, the rest of the country, for Ecuador, the Amazon region, and for Colombia, the Bogota region.

As argued by Mondragon-Velez and Peña (2010), it is necesary to consider sectoral composition because the self-employed and the employed are concentrated in different sectors. Bassed on Kenessey (1987), we consider four major sectors covering the following activities. Primary Sector (agriculture, forestry and fishing, mining), Secondary sector (construction, manufacturing), Tertiary sector (transportation, electric, gas and sanitary services; wholesale trade; retail trade) and Quaternary sector (finance, insurance, and real estate; services and public administration). Information for sectoral composition is only available for Peru, Ecuador, and Colombia, the surveys of Mexico and Panama do not provide this information.

Table 1 (Appendix A) shows the variables included in our regressions. Self-employed mothers, on average, in the five countries are 1.71 years older compared to employed mothers. The prevailing education level for the self-employed mothers is primary education, with 75%, 59%, 46%, 73% and 51% for Mexico, Peru, Panama, Ecuador, and Colombia, respectively, while for employed mothers, primary studies predominate for Mexico (57%), Peru (42%) and Ecuador (44%) and university studies for Panama (51%) and Colombia (46%). Concerning non-labor income (in Mexico, Ecuador, and Colombia) self-employed mothers obtain higher incomes, compared to employed mothers. Predicted wages (in Mexico, Peru, Ecuador, and Colombia) are higher for employed mothers compared to the self-employed mothers. The number of household members in the five countries for self-employed and employed mothers is around four, one of which would be a child between 5 and 12 years old, and around 72% of working mothers are married/cohabiting. Regarding the sectoral composition (Peru, Ecuador, and Colombia) self-employed mothers are concentrated in the tertiary sector, in Peru and Ecuador (50% and 38% respectively), and in the quaternary sector in Colombia (44%). Employed mothers are concentrated in the quaternary sector in Peru, Ecuador, and Colombia (53%, 53% and 59% respectively).

Table 2 shows the results of estimating the SUR model for Equations (1), (2), and (3) for Mexico, Peru, Panama, Ecuador, and Colombia, respectively. For the time devoted to paid work in the five countries (Column 1, Table 2), we observe that $\beta_1 < 0$ and is statistically significant, indicating that self-employed mothers devote less time to paid work compared with employed mothers, with these differences being 6.90, 8.63, 10.90 and 4.86 hours per week in Mexico, Peru, Panama and Ecuador, respectively, and 1.29

hours per day in Colombia. For the time devoted to unpaid work (Column 2, Table 2), we find the opposite effect with respect to paid work, and $\beta_1 > 0$ and is statistically significant that is, self-employed mothers devote more time to unpaid work relative to employed mothers, with these differences being 6.34, 7.11, 6.11 and 7.00 hours per week in Mexico, Peru, Panama, and Ecuador, respectively, and 1.00 hour per day in Colombia. Regarding child care (Column 3, Table 2), self-employed mothers devote more time to child care compared with employed mothers, $\beta_1 > 0$, with these differences being 1.16, 1.06, 1.97 and 1.33 hours per week in Mexico, Peru, Panama and Ecuador, respectively, and 0.22 hours per week in Colombia.[9]

Regarding the other variables included in the SUR estimates for the five countries (Appendix B, Tables B1 to B5), we find that age has a positive relationship with the time devoted to paid work in Peru, Panama, Ecuador, and Colombia, while it has a negative relationship with the time devoted to child care in Mexico, Ecuador and Colombia. Education has a positive relationship with the the time devoted by mothers to child care in Mexico, Peru and Panama. Regarding the marital status of working mothers, we find that being married/cohabiting has a negative relationship with the time devoted to paid work, and a positive relationship with the time devoted to to unpaid work,in Mexico, Panama and Colombia, whereas in Ecuador being married /cohabiting has a negative relationship with the time devoted to unpaid work. Regarding wages, higher wages are related to more time devoted to paid work in Mexico and Ecuador, and with more time in child care in Mexico and Colombia. A greater number of household members is negatively related to the time devoted to unpaid work in Mexico, Panama, Ecuador, and Colombia. Apart from having a positive relationship with the time devoted to child care in the five countries, having more children is related to more time devoted by mothers to unpaid work and less time devoted by mothers to paid work in Mexico, Peru, Ecuador and Colombia. Finally, and regarding the sectoral composition, belonging to the third sector compared to the primary sector (agriculture, forestry and fishing, mining) is positively related to the time devoted to paid work in Peru, Ecuador and Colombia, and negatively related to the time devoted to unpaid work in Peru and Ecuador.

## 4. Conclusions

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[9] Complete results of the SUR estimates for each country are in Tables B1 to B5 in the Appendix.

AQUIAQUIAQUIIn this paper, we analyse the time employed and self-employed mothers in five Latin America countries devote to paid work, unpaid work and child care. The results indicate that self-employed mothers devote less time to paid work and devote more time to unpaid work and child care compared to employed mothers in the five countries. These results may serve to support the hypothsis that self-employment is an option for mothers to have greater control over their allocation of time, mainly child care. Despite this positive evidence that self-employment will make it possible to better coordinate paid work, unpaid work, and child care, in different countries of Latin America, micro-entrepreneurship and self-employment in many cases become a survival strategy, especially in times of crisis and unemployment, for those who have no other form of income generation. (Heller, 2010). One possible explanation is that the majority of the self-employed have low levels of studies compared to wage earners, which often makes it difficult for them to access the salaried sector (Mondragon-Velez and Peña 2010). In addition to the difficulty that women have when entering the wage sector in Latin American countries, the difficulties are increased when women have young children, in part because of the limitations on child care services in the region (Araujo et al 2013; Mateo Diaz and Rodriguez-Chamussy 2013, 2016). These reasons may encourage mothers to choose self-employment as an alternative to generate incomes and better coordinate paid work, unpaid work, and child care.

Our analysis shows the benefits of self-employment in the time devoted by mothers to child care and their positive coordination with paid work. Furthermore, microenterprises led by women often overcome the barrier of subsistence and even open new markets, so financing and specific training in entrepreneurship are key aspects in fostering an entrepreneurial spirit in the population (Cheston and Kuhn, 2002; Heller, 2010). Additionally, access to good-quality and convenient child care services (formal child care) can modify female labor force participation decisions, increasing a household's income and opportunities, especially among the most vulnerable segments of the population (Heller 2010; Mateo-Diaz and Rodriguez-Chamussy 2013, 2016). So, it is necessary for governments to make every effort so that most households with young children have access to child care services. Authors such as Hallman et al. (2005) for Guatemala, Mateo Diaz and Rodriguez-Chamussy (2016) for Mexico, and Contreras et al. (2012) for Chile, show the benefits of child care services and their positive effect on mothers' work hours. Thus, public policies aimed at financing and training in entrepreneushp should be implemented, together with policies aimed at increasing the

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availability and quality of child-care services, which may have a multiplier effect given the positive effect on future generations.

One limitation of our analysis is that our data is a cross-section of individuals, and it does not allow us to identify differences in the time devoted to paid work, unpaid work, and child care, net of (permanent) individual heterogeneity in preferences. At present, there are no panels of time-use surveys currently available, and we leave this issue for future research.

**REFERENCES**

Aguiar, M., and Hurst, E. (2007). Measuring trends in leisure: The allocation of time over five decades. *The Quarterly Journal of Economics*, 122(3), 969–1006.

Allen, T., Herst, D., Bruck, C. and Sutton, M. (2000) Consequences associated with work-to-family conflict: a review and agenda for future research. *Journal of Occupational Health Psychology*, 5, 278–308.

Arai, A.B. (2000) Self-employment as a response to the double day for women and men in Canada. *Canadian Review of Sociology*, 37,2, 125–42.

Araujo, M. C., López Bóo, F., and Puyana, J. M. (2013). Overview of early childhood development services in Latin America and the Caribbean. IDB-MG 149. Washington, DC: Inter-American Development Bank.

Beutell, N.J. (2007) Self-employment, work–family conflict and work–family synergy: Antecedents and consequences. *Journal of Small Business & Entrepreneurship*, 20 (4), 325–34.

Bianchi, S. M. (2000). Maternal employment and time with children: Dramatic change or surprising continuity? *Demography*, 37 (4), 401–414.

Boden, R. J. (1999) Flexible working hours, family responsibilities, and female self employment. *American Journal of Economics and Sociology*, 58, 71–83.

Byron, K. (2005) A meta-analytic review of work-family conflict and its antecedents. *Journal of Vocational Behavior*, 67, 169–98.

Campaña, J. C., Gimenez-Nadal, J. I., and Molina, J. A. (2017). Increasing the Human Capital of Children in Latin American Countries: The Role of Parents' Time in Child care. *The Journal of Development Studies*, 53 (6), 805-825.

Canelas, C., and Salazar, S. (2014). Gender and ethnic inequalities in LAC countries. *IZA Journal of Work and Development*, 3, 18.

Caputo, R. K. and Dolinsky, A. (1998) Women's choice to pursue self-employment: the role of financial and human capital of household members. *Journal of Small Business Management*, 36, 8–17.

Cheston, S and L. Kuhn (2002). Empoderamiento de la mujer a través de la microfinanzas. UNIFEM.

Connelly, R. (1992) Self-employment and providing child care. ., 29, 17–29.

Contreras, D., E. Puentes, and D. Bravo. 2012. "Female Labor Supply and Child Care Supply in Chile." Working Paper SDT 370, Department of Economics, University of Chile, Santiago.

Dawson, C., Henley, A. and Latreille, P. (2009)Why do individuals choose self employment? IZA Discussion Paper No. 3974. Bonn: IZA.

DeMartino, R. and Barbato, R. (2003) Differences between women and men MBA entrepreneurs: exploring family flexibility and wealth creation as career motivators. *Journal of Business Venturing*, 18, 815–32.

Edwards, L. N. and Field-Hendrey, E. (1996) Home-based workers: data from the 1990 census of population. *Monthly Labour Review*, 119, 26–34.

Esquivel, V. (2010). Lessons from the Buenos Aires Time-Use Survey: A Methodological Assessment. In Unpaid Work and the Economy (pp. 181-214). Palgrave Macmillan UK.

Esquivel, V., Budlender, D., Folbre, N., and Hirway, I. (2008). Explorations: Time-use surveys in the south. *Feminist Economics*, 14(3), 107-152.

Esplen, E. (2009). *Gender and care: overview report*. Brighton: Institute of Development Studies.

Fisher, K., and Robinson, J. (2011). Daily life in 23 countries. *Social indicators research*, 101, 295-304.

Floro, M. S., and Pichetpongsa, A. (2010). Gender, work intensity, and well-being of Thai home-based workers. *Feminist Economics*, 16(3), 5-44.

Folbre, N. (2006). Measuring Care: Gender, Empowerment, and the Care Economy. *Journal of Human Development*, 7, 183-200.

Folbre, N., Yoon, J., Finnoff, K., & Fuligni, A. S. (2005). By what measure? Family time devoted to children in the United States. *Demography*, 42(2), 373–390.

Foster, G. and Kalenkoski, C. (2013) Tobit or OLS? An empirical evaluation under different diary window lengths. *Applied Economics*, 45, 2994–3010.

Frazis, H., & Stewart, J. (2012). How to think about time-use data: what inferences can we make about long-and short-run time use from time diaries? *Annals of Economics and Statistics*, 231-245.

Georgellis, Y. and Wall, H.J. (2000) Who are the self-employed? Federal Reserve Bank of St. Louis Review, November, 15–24.

Gershuny, J. (2000) Changing Times: Work and Leisure in post-industrial Society. Oxford: Oxford University Press.

Gimenez-Nadal, J. I., and Molina, J. A. (2013). Parents' education as a determinant of educational child care time. *Journal of Population Economics*, 26(2), 719–749.

Gimenez-Nadal, J.I, and J. A. Molina (2015). Health status and the allocation of time: cross-country evidence in Europe. *Economic Modelling*, 46(2): 188-203.

Gimenez-Nadal, J.I., and A Sevilla (2011). The Time-Crunch Paradox. *Social Indicators Research*, 102(2): 181-196.

Gimenez-Nadal, J. I., and Sevilla, A. (2012) Trends in time allocation: a cross-country analysis. *European Economic Review* 56, 1338–59

Gimenez-Nadal, J. I., and Sevilla, A. (2014). Total work time in Spain: evidence from time diary data. *Applied Economics*, 46, 1894-1909.

Gimenez-Nadal, J. I., Molina, J. A., and Ortega, R. (2012). Self-employed mothers and the work-family conflict. *Applied Economics*, 44(17), 2133-2147.

Grossbard, S. A., Gimenez-Nadal, J. I., and Molina, J. A. (2014). Racial Intermarriage and Household Production. *Review of Behavioral Economics*, 1, 295-347.

Grzywacz, J. and Bass, B. (2003) Work, family, and mental health: testing different models of work-family fit. *Journal of Marriage and Family*, 65, 248–61.

Guryan, J., Hurst, E., & Kearney, M. (2008). Parental education and parental time with children. *The Journal of Economic Perspectives*, 22(3), 23.

Hallman, K., Quisumbing, A. R., Ruel, M., & de la Briere, B. (2005). Mothers' work and child care: findings from the urban slums of Guatemala City. *Economic Development and Cultural Change*, 53(4), 855-885.

Heckman, J. J. (1979). Sample selection bias as a specification error. *Econometrica*, 47(1), 153–161.

Heller, L. (2010). Mujeres emprendedoras en América Latina y el Caribe: realidades, obstáculos y desafíos. *CEPAL.*

Hochschild, A. R. (1997) The Time Bind: When Work Becomes Home and Home Becomes Work. Metropolitan Books, New York.

Hochschild, A. R. and Machung, A. (1989) The Second Shift: Working Parents and the Revolution at Home. Viking, New York.

Hundley, G. (2000) Male/female earnings differences in self-employment: the effects of marriage, children, and the household division of labor. *Industrial and Labor Relations Review*, 54, 95–114.

Hyytinen, A. and Ruskanen, O. P. (2007) Time use of the self-employed, *Kyklos*, 60, 105–22.

Johansson Sevä, I., and Öun, I. (2015). Self-employment as a strategy for dealing with the competing demands of work and family? The importance of family/lifestyle motives. *Gender, Work & Organization*, 22(3), 256-272.

Kahneman, D and Krueger, A. B. (2006) Developments in the measurement of subjective well-being. *Journal of Economic Perspectives*, 20, 3–24.

Kahneman, D., Krueger, A. B., and Schkade, D. (2004) a survey method for characterizing daily life experience: the day reconstruction method, *Science*, 306, 1776–1780.

Kalenkoski, C. M., & Foster, G. (2015). Measuring the relative productivity of multitasking to sole-tasking in household production: experimental evidence. *Applied Economics*, 47(18), 1847-1862.

Kalenkoski, C. M., Ribar, D. C., & Stratton, L. S. (2005). Parental child care in single-parent, cohabiting, and married-couple families: Time-diary evidence from the United Kingdom. *American Economic Review*, 95(2), 194–198.

Kenessey, Z. (1987). The primary, secondary, tertiary and quaternary sectors of the economy. *Review of Income and Wealth*, 33(4), 359-385

Kossek, E. and Ozeki, C. (1999) Work-family conflict, policies, and the job-life satisfaction relationship: a review and directions for organizational behavior human resources research. *Journal of Applied Psychology*, 83, 139–49.

Krueger, A. B. (2007) Are we having more fun yet? Categorizing and evaluating changes in time allocation. *Brooking Papers on Economic Activity*, 2, 193–217.

Lombard, K. (2007) Female self-employment and demand for flexible, nonstandard work schedules. *Economic Inquiry*, 39, 214–37.

Loscocoo, K. (1997) Work–family linkages among selfemployed women and men. *Journal of Vocational Behavior*, 50, 204–26.

Mateo Díaz, M, and Rodriguez-Chamussy, L. (2013). Child care and women's labor participation: evidence for Latin America and the Caribbean. *Inter-American Development Bank.*

Mateo Díaz, M., and Rodriguez-Chamussy, L. (2016). *Cashing in on Education: Women, Child care, and Prosperity in Latin America and the Caribbean*. World Bank Publications.

Medeiros, M., Osório, R. G., and Costa, J. (2007). Gender inequalities in allocating time to paid and unpaid work: evidence from Bolivia. *Levy Economics Institute Working Paper No. 495*

Mesmer-Margnus, J. R. and Viswesvaran, C. (2005a) Convergence between measures of work-tofamily and family-to-work conflict: a meta-analytic examination. *Journal of Vocational Behavior*, 67, 215–32.

Mesmer-Margnus, J. R. and Viswesvaran, C. (2005b) How family-friendly work environments affect work/family conflict: a meta-analytic examination. *Journal of Labour Research*, 27, 555–74.

Miller, P., & Mulvey, C. (2000). Women's time allocation to child care: Determinants and consequences. *Australian Economic Papers*, 39(1), 1–24.

Mondragón-Vélez, C., & Peña, X. (2010). *Business Ownership and Self-Employment in Developing Economies: The Colombian Case.* In International differences in entrepreneurship (pp. 89-127). University of Chicago Press.

Montaño S (2010). El cuidado en acción. En: El cuidado en acción: entre el derecho y el trabajo. Santiago: CEPAL, 2010. LC/G. 2454-P. p. 13-61.

Murphy, K. M., & Topel, R. H. (1985). Estimation and inference in two-step econometric models. *Journal of Business and Economic Statistics*, 3(4), 370–379.

Newman, C. (2002). Gender, time use, and change: the impact of the cut flower industry in Ecuador. *The World Bank Economic Review*, 16, 375-395.

Netemeyer, R. G., Boles, J. S. and McMurrian, R. (1996) Development and validation of work-family conflict and family-work conflict scales. *Journal of Applied Psychology*, 81, 400–10.

Presser, H. B. (1989) Can we make time for children? The economy, work schedules, and child care. *Demography*, 26, 523–43.

Pagan, A. (1984). Econometric issues in the analysis of regressions with generated regressors. *International Economic Review*, 25(1), 221–247.

Schor, J. (1991) The Overbooked American: The Unexpected Decline of Leisure, Basic Books, New York.

Sevilla, A., Gimenez-Nadal, J. I. and Fernandez, C. (2010) Gender roles and the division of unpaid work in Spanish households. *Feminist Economics*, 16, 137–84.

Silver, C. (2000). Being there: The time dual-earner couples spend with their children. Canadian Social Trends, 57(11–008), 26– 30. Retrieved from http://www.ghcisocialscience.com/uploads/1/3/5/9/13590293/being_there.pdf

Stephens, G.K. and Feldman, D.C. (1997) A motivational approach for understanding career versus personal life investments. *Research in Personnel and Human Resources Management*, 15, 333–77.

Walker, E.A. and Webster, B.J. (2007) Gender, age and self-employment: Some things change, some stay the same. *Women in Management Review*, 22 (2), 122–35.

World Bank. (2017) http://databank.worldbank.org/data/reports.aspx?source=2&series=SL.TLF.CACT.FE.ZS&country= (accessed February 2017).

**Table 1 Difference between self-employed and employed mothers in the time devoted to paid work, unpaid work, and child care.**

|  | (1) | (2) | (3) |
|---|---|---|---|
|  | Paid work | Non- paid work | Child care |
| **Panel A: Mexico** | | | |
| Self – employed | 32.84 | 42.69 | 7.40 |
| Employed | 39.96 | 34.98 | 7.02 |
| Difference | -7.13 | 7.71 | 0.38 |
| (p-value difference) | (0.00) | (0.00) | (0.23) |
| **Panel B: Peru** | | | |
| Self – employed | 31.26 | 37.63 | 6.57 |
| Employed | 37.99 | 30.24 | 5.95 |
| Difference | -6.73 | 7.39 | 0.63 |
| (p-value difference) | (0.00) | (0.00) | (0.17) |
| **Panel C: Panama** | | | |
| Self – employed | 29.95 | 29.22 | 8.78 |
| Employed | 40.99 | 21.80 | 7.91 |
| Difference | -11.04 | 7.42 | 0.87 |
| (p-value difference) | (0.00) | (0.00) | (0.25) |
| **Panel D: Ecuador** | | | |
| Self – employed | 38.22 | 41.15 | 8.13 |
| Employed | 41.17 | 33.05 | 8.28 |
| Difference | -2.95 | 8.09 | -0.15 |
| (p-value difference) | (0.00) | (0.00) | (0.62) |
| **Panel E: Colombia** | | | |
| Self – employed | 4.93 | 4.28 | 0.79 |
| Employed | 6.07 | 3.12 | 0.71 |
| Difference | -1.14 | 1.16 | 0.08 |
| (p-value difference) | (0.00) | (0.00) | (0.00) |

Note: Data sources are time-use surveys from Mexico (2009), Peru (2010), Panama (2011), Ecuador (2012) and Colombia (2012). The sample is restricted to include self-employed and employed mothers of children under 18, who are not students or retirees. This table presents means of time spent by self-employed and employed mothers to paid work, unpaid work, basic, and educational child care (See Appendix C for a description of all the activities included in the four categories). Time devoted to the activities is measured in hours per week (Mexico, Peru, Panama and Ecuador) and hours per day (Colombia). Difference employed-self-employed mothers indicates the differences between the two groups in the time devoted to paid work, unpaid work, basic child care, and educational child care. P-value difference indicates whether the difference is statistically different from zero.

**Table 2: SUR estimates of the time devoted by employed and self-employed mothers to paid work, unpaid work, and child care**

| | (1) | (2) | (3) |
|---|---|---|---|
| | Paid work | Non- paid work | Child care |
| **Panel A: Mexico** **(hours per week)** | | | |
| Self – employed | -6.896*** | 6.336*** | 1.160*** |
| (N=3,063) | (0.770) | (0.716) | (0.264) |
| **Panel B: Peru** **(hours per week)** | | | |
| Self – employed | -8.631*** | 7.110*** | 1.060*** |
| (N=1,035) | (1.213) | (0.894) | (0.398) |
| **Panel C: Panama** **(hours per week)** | | | |
| Self – employed | -10.90*** | 6.108*** | 1.966*** |
| (N=631) | (1.484) | (1.107) | (0.697) |
| **Panel D: Ecuador** **(hours per week)** | | | |
| Self – employed | -4.857*** | 6.997*** | 1.325*** |
| (N=3,065) | (0.609) | (0.712) | (0.298) |
| **Panel E: Colombia** **(hours per day)** | | | |
| Self – employed | -1.290*** | 1.001*** | 0.212*** |
| (N=8,273) | (0.0880) | (0.0602) | (0.0244) |

Note: Bootstrapped standard errors in parentheses. Data sources are time use surveys from Mexico (2009), Peru (2010), Panama (2011), Ecuador (2012) and Colombia (2012). The sample is restricted to include self-employed and employed mothers of children under 18, who are not students or retirees. See Appendix C for a description of all the activities included in paid work, unpaid work, basic child care, and educational child care. Time devoted to the activities is measured in hours per week (Mexico, Peru, Panama and Ecuador) and hours per day (Colombia). We include in Colombia dummy variables to control for the day of the week (Ref.: Sunday). *p = 0.90; **p = 0.95; ***p=0.99.

**Table A1**
**Demographic characteristics of the samples**

| | (1) | | (2) | | (3) | | (4) | | (5) | | (6) | | (7) | | (8) | | (9) | | (10) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mexico | | | | Peru | | | | Panama | | | | Ecuador | | | | Colombia | | | |
| Variables | Self-employed | | Employed | | Self-employed | | Employed | | Self-employed | | Employed | | Self-employed | | Employed | | Self-employed | | Employed | |
| Age | 38.82 | (8.29) | 37.30 | (8.09) | 39.20 | (8.28) | 38.68 | (8.26) | 38.81 | (8.02) | 37.34 | (7.31) | 39.78 | (9.26) | 36.44 | (8.58) | 38.46 | (8.69) | 36.76 | (8.29) |
| Primary education | 0.75 | (0.43) | 0.57 | (0.49) | 0.59 | (0.49) | 0.42 | (0.49) | 0.46 | (0.50) | 0.18 | (0.39) | 0.73 | (0.44) | 0.44 | (0.50) | 0.51 | (0.50) | 0.25 | (0.43) |
| Secondary education | 0.14 | (0.35) | 0.16 | (0.37) | 0.28 | (0.45) | 0.21 | (0.41) | 0.33 | (0.47) | 0.30 | (0.46) | 0.18 | (0.38) | 0.23 | (0.42) | 0.30 | (0.46) | 0.29 | (0.45) |
| University education | 0.10 | (0.31) | 0.26 | (0.44) | 0.13 | (0.33) | 0.36 | (0.48) | 0.21 | (0.41) | 0.51 | (0.50) | 0.09 | (0.28) | 0.33 | (0.47) | 0.19 | (0.39) | 0.46 | (0.50) |
| Married/Cohabiting | 0.82 | (0.38) | 0.76 | (0.42) | 0.78 | (0.41) | 0.76 | (0.43) | 0.68 | (0.47) | 0.74 | (0.44) | 0.65 | (0.48) | 0.63 | (0.48) | 0.69 | (0.46) | 0.71 | (0.46) |
| Non labour income family | 27.00 | (129.4) | 23.87 | (90.8) | - | - | - | - | - | - | - | - | 51.54 | (142.5) | 40.90 | (117.7) | 67.87 | (224.3) | 66.55 | (214.0) |
| Log hourly predicted wage | 0.70 | (0.49) | 0.86 | (0.46) | 0.78 | (0.22) | 0.87 | (0.24) | - | - | - | - | 0.78 | (0.37) | 0.97 | (0.39) | 0.71 | (0.71) | 1.04 | (0.58) |
| N. household members | 4.52 | (1.50) | 4.24 | (1.40) | 4.54 | (1.66) | 4.44 | (1.45) | 4.26 | (1.68) | 4.00 | (1.25) | 4.66 | (1.85) | 4.26 | (1.65) | 4.10 | (1.42) | 3.81 | (1.29) |
| N. younger child 0- 4 | 0.32 | (0.60) | 0.36 | (0.59) | 0.37 | (0.57) | 0.34 | (0.55) | 0.30 | (0.54) | 0.37 | (0.56) | 0.36 | (0.61) | 0.39 | (0.60) | 0.30 | (0.53) | 0.32 | (0.52) |
| N. younger child 5- 12 | 0.97 | (0.89) | 0.88 | (0.85) | 0.94 | (0.88) | 0.93 | (0.85) | 0.88 | (0.91) | 0.86 | (0.79) | 1.06 | (0.99) | 1.00 | (0.90) | 0.81 | (0.82) | 0.75 | (0.74) |
| N. younger child 13- 17 | 0.74 | (0.76) | 0.66 | (0.75) | 0.74 | (0.71) | 0.70 | (0.75) | 0.64 | (0.65) | 0.56 | (0.69) | 0.76 | (0.78) | 0.61 | (0.76) | 0.65 | (0.71) | 0.52 | (0.66) |
| Indigenous | 0.10 | (0.31) | 0.04 | (0.20) | 0.21 | (0.41) | 0.19 | (0.39) | - | - | - | - | 0.16 | (0.37) | 0.07 | (0.25) | 0.05 | (0.22) | 0.03 | (0.16) |
| Rural Area | 0.23 | (0.42) | 0.15 | (0.36) | 0.29 | (0.45) | 0.22 | (0.41) | - | - | - | - | 0.51 | (0.50) | 0.38 | (0.48) | 0.15 | (0.36) | 0.07 | (0.26) |
| Sector 1 | - | - | - | - | 0.15 | (0.35) | 0.23 | (0.42) | - | - | - | - | 0.30 | (0.46) | 0.22 | (0.41) | 0.04 | (0.20) | 0.05 | (0.21) |
| Sector 2 | - | - | - | - | 0.10 | (0.30) | 0.11 | (0.31) | - | - | - | - | 0.09 | (0.29) | 0.11 | (0.32) | 0.14 | (0.35) | 0.13 | (0.34) |
| Sector 3 | - | - | - | - | 0.50 | (0.50) | 0.12 | (0.33) | - | - | - | - | 0.38 | (0.49) | 0.14 | (0.35) | 0.38 | (0.48) | 0.23 | (0.42) |
| Sector 4 | - | - | - | - | 0.25 | (0.43) | 0.53 | (0.50) | - | - | - | - | 0.23 | (0.42) | 0.53 | (0.50) | 0.44 | (0.50) | 0.59 | (0.49) |
| Region 1 | 0.26 | (0.44) | 0.28 | (0.45) | 0.27 | (0.45) | 0.36 | (0.48) | 0.33 | (0.47) | 0.51 | (0.50) | 0.56 | (0.50) | 0.53 | (0.50) | 0.23 | (0.42) | 0.15 | (0.36) |
| Region 2 | 0.29 | (0.45) | 0.29 | (0.45) | 0.33 | (0.47) | 0.21 | (0.41) | 0.21 | (0.41) | 0.18 | (0.38) | 0.25 | (0.44) | 0.29 | (0.45) | 0.19 | (0.39) | 0.20 | (0.40) |
| Region 3 | 0.17 | (0.38) | 0.25 | (0.44) | 0.24 | (0.43) | 0.20 | (0.40) | 0.45 | (0.50) | 0.31 | (0.46) | 0.19 | (0.39) | 0.18 | (0.38) | 0.18 | (0.38) | 0.18 | (0.38) |
| Region 4 | 0.28 | (0.45) | 0.18 | (0.38) | 0.16 | (0.37) | 0.22 | (0.42) | - | - | - | - | - | - | - | - | 0.19 | (0.39) | 0.14 | (0.34) |
| Region 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.20 | (0.40) | 0.29 | (0.46) |
| Region 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.01 | (0.12) | 0.04 | (0.19) |
| Observations | 986 | | 2077 | | 621 | | 414 | | 121 | | 510 | | 1596 | | 1469 | | 3496 | | 4777 | |
| % of observations | 0.32 | | 0.68 | | 0.60 | | 0.40 | | 0.19 | | 0.81 | | 0.52 | | 0.48 | | 0.42 | | 0.58 | |
| Total observations | 3063 | | | | 1035 | | | | 631 | | | | 3065 | | | | 8273 | | | |

Note: Data sources are time use surveys from Mexico (2009), Peru (2010), Panama (2011), Ecuador (2012) and Colombia (2012). The sample is restricted to include self-employed and employed mothers of children under 18, who are not students or retirees. Primary education is equivalent to less than high school degree, Secondary education is equivalent to high school degree and university education is equivalent to more than a high school degree. Non-labour incomes are in US dollars for Mexico, Ecuador and Colombia. Rural area is considered in Mexico, Peru, and Ecuador, while Colombia is not considered to be a municipality. Standard deviation in parentheses.

**Table A2**

**Heckman´s Model for Predicted Wages in Mexico, Peru, Ecuador, and Colombia**

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| | Mexico | | Peru | | Ecuador | | Colombia | |
| | Hourly wage | Participation | Hourly wage | Participation | Hourly wage | Participation | Hourly wage | Participation |
| Years of education | 0.225*** | 0.0626*** | 0.106*** | 0.0550*** | 0.213*** | 0.0494*** | 0.350*** | 0.0916*** |
| | (0.00745) | (0.00297) | (0.00855) | (0.00494) | (0.00861) | (0.00326) | (0.00823) | (0.00210) |
| Potential experience | 0.0527*** | 0.0733*** | 0.0604*** | 0.0786*** | 0.0455*** | 0.0628*** | 0.0622*** | 0.0911*** |
| | (0.00584) | (0.00253) | (0.00957) | (0.00509) | (0.00605) | (0.00302) | (0.00592) | (0.00178) |
| Potential experience squared | -0.0521*** | -0.135*** | -0.0899*** | -0.126*** | -0.0332*** | -0.110*** | -0.0323*** | -0.172*** |
| | (0.00976) | (0.00480) | (0.0160) | (0.00986) | (0.00865) | (0.00540) | (0.0112) | (0.00407) |
| Indigenous | 0.0699 | 0.0942** | 0.0611 | 0.163*** | 0.118* | 0.164*** | 0.323*** | 0.321*** |
| | (0.0728) | (0.0417) | (0.0705) | (0.0479) | (0.0602) | (0.0322) | (0.0719) | (0.0336) |
| Rural Area | -0.212*** | -0.347*** | 0.0553 | -0.262*** | -0.236*** | -0.110*** | -0.0124 | -0.307*** |
| | (0.0418) | (0.0250) | (0.0743) | (0.0589) | (0.0398) | (0.0282) | (0.0370) | (0.0191) |
| Region 1 | 0.0489 | 0.0326 | -0.00855 | 0.218*** | -0.0502 | 0.202*** | -0.453*** | -0.348*** |
| | (0.0399) | (0.0255) | (0.0665) | (0.0526) | (0.0645) | (0.0383) | (0.0492) | (0.0209) |
| Region 2 | 0.120*** | -0.0602** | -0.138* | 0.170*** | -0.275*** | -0.150*** | -0.333*** | -0.411*** |
| | (0.0451) | (0.0267) | (0.0818) | (0.0513) | (0.0680) | (0.0367) | (0.0466) | (0.0234) |
| Region 3 | 0.0116 | -0.0479* | -0.0258 | 0.106** | - | - | -0.333*** | -0.240*** |
| | (0.0523) | (0.0266) | (0.0993) | (0.0459) | - | - | (0.0478) | (0.0233) |
| Region 4 | - | - | - | - | - | - | -0.409*** | -0.190*** |
| | - | - | - | - | - | - | (0.0434) | (0.0238) |
| Region 5 | - | - | - | - | - | - | 0.0942 | -0.116*** |
| | - | - | - | - | - | - | (0.0791) | (0.0387) |
| Head of family | - | 0.454*** | - | 0.617*** | - | 0.746*** | - | 0.439*** |
| | - | (0.0316) | - | (0.0692) | - | (0.0412) | - | (0.0204) |
| In partner | - | -0.400*** | - | -0.262*** | - | -0.297*** | - | -0.331*** |
| | - | (0.0248) | - | (0.0533) | - | (0.0331) | - | (0.0171) |
| Unemployed | - | -7.402*** | - | -7.531*** | - | -7.287*** | - | -8.104*** |
| | - | (0.0809) | - | (0.146) | - | (0.0920) | - | (0.0611) |
| Children under 18 | - | -0.0715*** | - | -0.0479*** | - | -0.0511*** | - | -0.0832*** |
| | - | (0.00976) | - | (0.0158) | - | (0.0106) | - | (0.00573) |
| N. household members | - | 0.0195*** | - | -0.00149 | - | -0.00629 | - | -0.00273 |
| | - | (0.00559) | - | (0.0102) | - | (0.00742) | - | (0.00375) |
| Constant | -1.599*** | -1.248*** | -0.366 | -1.222*** | -1.011*** | -1.235*** | -2.970*** | -1.234*** |
| | (0.169) | (0.0627) | (0.263) | (0.0848) | (0.188) | (0.0752) | (0.181) | (0.0400) |
| | | | | | | | | |
| Mills Ratio | | 0.371*** | | 0.420*** | | 0.170*** | | 0.549*** |
| | | (0.0722) | | (0.153) | | (0.0588) | | (0.0882) |
| Observations | 7331 | 19882 | 2357 | 4996 | 5.608 | 14.619 | 21892 | 46257 |

Notes: Bootstrapped standard error in parentheses. Data sources are time use surveys from Mexico (2009), Peru (2010), Panama (2011), Ecuador (2012) and Colombia (2012). * Significant at the 90% level ** Significant at the 95% level *** Significant at the 99% level. Sample consists of women aged 14-65 from Time-Use Surveys of México and Peru. In Ecuador, sample consists of women aged 15-65 from Time-Use Surveys of Ecuador, and in Colombia sample consists of women aged 15-55 from Time-Use Survey of Colombia. * Rural area is considered in Mexico, Peru and Ecuador, while Colombia is not considered to be a municipality.Predicted hourly wage are in us dollar in the four countries.

# APPENDIX B

**Table B1: SUR estimates of the time devoted by employed and self-employed mothers to paid work, unpaid work, and child care in Mexico**

|  | (1) Paid work | (2) Unpaid work | (3) Child care |
|---|---|---|---|
| Self-employed | -6.896*** | 6.336*** | 1.160*** |
|  | (0.770) | (0.716) | (0.264) |
| Age | -0.283 | 0.346 | -0.319*** |
|  | (0.252) | (0.224) | (0.0803) |
| Age squared | 0.311 | -0.261 | 0.222** |
|  | (0.307) | (0.274) | (0.0884) |
| Secondary education | -2.507** | -1.746 | 0.712* |
|  | (1.091) | (1.072) | (0.401) |
| University education | -7.072*** | -3.347** | 0.909 |
|  | (1.501) | (1.512) | (0.552) |
| Married/Cohabitting | -4.570*** | 3.983*** | -0.0323 |
|  | (0.805) | (0.800) | (0.268) |
| Non-labour income (family) | -0.00722** | 0.000466 | -0.000442 |
|  | (0.00293) | (0.00405) | (0.000777) |
| Log hourly predicted wage rate | 2.480** | -1.144 | 1.411*** |
|  | (1.047) | (1.101) | (0.362) |
| Log hourly predicted wage rate sq | 2.060* | 1.453 | 0.215 |
|  | (1.101) | (1.176) | (0.368) |
| N. household members | -0.252 | -0.744** | -0.00951 |
|  | (0.296) | (0.328) | (0.0973) |
| N. younger child 0-4 | -0.797 | 1.639** | 6.681*** |
|  | (0.736) | (0.660) | (0.331) |
| N. younger child 5-12 | -1.231*** | 2.842*** | 1.875*** |
|  | (0.456) | (0.460) | (0.174) |
| N. younger child 13-17 | 0.461 | 1.663*** | -0.833*** |
|  | (0.560) | (0.595) | (0.189) |
| Indigenous | -0.407 | 1.295 | 0.207 |
|  | (1.492) | (1.430) | (0.550) |
| Rural area | -2.120** | 7.181*** | -0.221 |
|  | (0.933) | (0.870) | (0.321) |
| Sector 2 | - | - | - |
|  | - | - | - |
| Sector 3 | - | - | - |
|  | - | - | - |
| Sector 4 | - | - | - |
|  | - | - | - |
| Region 1 | -1.020 | 2.510*** | -1.242*** |
|  | (0.828) | (0.865) | (0.305) |
| Region 2 | -0.275 | 0.776 | -1.106*** |
|  | (0.792) | (0.842) | (0.328) |
| Region 3 | 0.999 | -2.056** | -0.632* |
|  | (0.953) | (0.870) | (0.333) |
| Constant | 50.51*** | 20.92*** | 11.25*** |
|  | (4.913) | (4.476) | (1.802) |
| R-squared | 0.074 | 0.105 | 0.408 |
| Observations | 3,063 | 3,063 | 3,063 |

Note: Bootstrapped standard errors in parentheses. The sample is restricted to include self-employed and employed mothers of children under 18, who are not students or retirees. Non-labour income is in US dollars. *Rural area is considered for Mexico, Peru and Ecuador, while Colombia is not considered to be a municipality. *p = 0.90; **p = 0.95; ***p = 0.99

**Table B2: SUR estimates of the time devoted by employed and self-employed mothers to paid work, unpaid work, and child care in Peru**

| | (1) | (2) | (3) |
|---|---|---|---|
| | Paid work | Unpaid work | Child care |
| Self-employed | -8.631*** | 7.110*** | 1.060*** |
| | (1.213) | (0.894) | (0.398) |
| Age | 0.945* | -0.0583 | 0.0933 |
| | (0.568) | (0.398) | (0.185) |
| Age squared | -0.947 | 0.139 | -0.274 |
| | (0.716) | (0.490) | (0.218) |
| Secondary education | 3.185 | -0.718 | 0.788 |
| | (2.082) | (1.374) | (0.631) |
| University education | -0.940 | -0.0525 | 2.432** |
| | (3.073) | (1.948) | (0.994) |
| Married/Cohabitting | -1.555 | 1.341 | -0.289 |
| | (1.332) | (1.002) | (0.398) |
| Non-labour income (family) | - | - | - |
| | - | - | - |
| Log hourly predicted wage rate | 28.11 | -7.660 | 4.114 |
| | (21.11) | (15.21) | (6.796) |
| Log hourly predicted wage rate sq | -19.87 | 3.149 | -2.912 |
| | (14.78) | (10.58) | (4.756) |
| N. household members | -0.397 | -0.318 | 0.0787 |
| | (0.436) | (0.350) | (0.146) |
| N. younger child 0-4 | -4.325*** | 2.033** | 6.571*** |
| | (1.050) | (0.838) | (0.451) |
| N. younger child 5-12 | -0.572 | 1.908*** | 0.689** |
| | (0.745) | (0.544) | (0.268) |
| N. younger child 13-17 | -0.364 | 0.601 | -0.901*** |
| | (0.898) | (0.699) | (0.300) |
| Indigenous | 4.186*** | -0.415 | -0.252 |
| | (1.348) | (0.955) | (0.460) |
| Rural area | -6.135*** | 3.948*** | 0.603 |
| | (1.277) | (0.971) | (0.490) |
| Sector 2 | -3.062 | 0.0703 | 0.690 |
| | (2.060) | (1.530) | (0.731) |
| Sector 3 | 3.112* | -2.376* | 0.557 |
| | (1.641) | (1.271) | (0.627) |
| Sector 4 | -0.660 | -1.375 | 0.524 |
| | (1.626) | (1.255) | (0.583) |
| Region 1 | -3.135** | 2.606** | 1.133** |
| | (1.530) | (1.124) | (0.497) |
| Region 2 | -3.236** | 4.415*** | 0.0222 |
| | (1.632) | (1.197) | (0.539) |
| Region 3 | 0.426 | 0.0725 | 1.189** |
| | (1.832) | (1.200) | (0.554) |
| Constant | 15.43 | 30.40*** | 0.782 |
| | (12.31) | (9.722) | (4.582) |
| R-squared | 0.139 | 0.173 | 0.439 |
| Observations | 1,035 | 1,035 | 1,035 |

Note: Bootstrapped standard errors in parentheses. The sample is restricted to include self-employed and employed mothers of children under 18, who are not students or retirees. Non-labour income is in US dollars. *Rural area is considered for Mexico, Peru and Ecuador, while Colombia is not considered to be a municipality. *p = 0.90; **p = 0.95; ***p = 0.99

**Table B3: SUR estimates of the time devoted by employed and self-employed mothers to paid work, unpaid work, and child care in Panama**

|  | (1) | (2) | (3) |
|---|---|---|---|
|  | Paid work | Unpaid work | Child care |
| Self-employed | -10.90*** | 6.108*** | 1.966*** |
|  | (1.484) | (1.107) | (0.697) |
| Age | 0.969* | -0.770 | -0.113 |
|  | (0.552) | (0.535) | (0.288) |
| Age squared | -1.522** | 1.326* | -0.00234 |
|  | (0.719) | (0.715) | (0.360) |
| Secondary education | 1.196 | -1.728 | 0.359 |
|  | (1.337) | (1.073) | (0.686) |
| University education | -0.717 | -2.633** | 1.665** |
|  | (1.193) | (1.073) | (0.706) |
| Married/Cohabitting | -2.466** | 3.057*** | 0.426 |
|  | (1.167) | (1.066) | (0.623) |
| Non-labour income (family) | - | - | - |
|  | - | - | - |
| Log hourly predicted wage rate | - | - | - |
|  | - | - | - |
| Log hourly predicted wage rate sq | - | - | - |
|  | - | - | - |
| N. household members | 0.338 | -1.055** | -0.391 |
|  | (0.535) | (0.523) | (0.274) |
| N. younger child 0-4 | -1.179 | 0.478 | 3.926*** |
|  | (1.188) | (1.059) | (0.606) |
| N. younger child 5-12 | -1.148 | 2.743*** | 2.018*** |
|  | (0.866) | (0.800) | (0.452) |
| N. younger child 13-17 | 0.0505 | 1.667* | -1.601*** |
|  | (1.026) | (0.946) | (0.529) |
| Indigenous | - | - | - |
|  | - | - | - |
| Rural area | - | - | - |
|  | - | - | - |
| Sector 2 | - | - | - |
|  | - | - | - |
| Sector 3 | - | - | - |
|  | - | - | - |
| Sector 4 | - | - | - |
|  | - | - | - |
| Region 1 | 1.507 | -2.096** | -0.574 |
|  | (1.070) | (0.902) | (0.590) |
| Region 2 | 0.634 | -0.497 | -1.213 |
|  | (1.348) | (1.168) | (0.754) |
| Constant | 27.83*** | 32.87*** | 10.66* |
|  | (10.26) | (9.720) | (5.627) |
| R-squared | 0.153 | 0.142 | 0.277 |
| Observations | 631 | 631 | 631 |

Note: Bootstrapped standard errors in parentheses. The sample is restricted to include self-employed and employed mothers of children under 18, who are not students or retirees. Non-labour income is in US dollars. *Rural area is considered for Mexico, Peru and Ecuador, while Colombia is not considered to be a municipality. *$p = 0.90$; **$p = 0.95$; ***$p = 0.99$

**Table B4:  SUR estimates of the time devoted by employed and self-employed mothers to paid work, unpaid work, and child care in Ecuador**

|  | (1) Paid work | (2) Unpaid work | (3) Child care |
|---|---|---|---|
| Self-employed | -4.857*** | 6.997*** | 1.325*** |
|  | (0.609) | (0.712) | (0.298) |
| Age | 0.551** | -0.113 | -0.289** |
|  | (0.265) | (0.284) | (0.113) |
| Age squared | -0.570* | 0.257 | 0.135 |
|  | (0.326) | (0.357) | (0.131) |
| Secondary education | 0.545 | -0.795 | 0.172 |
|  | (1.133) | (1.194) | (0.511) |
| University education | 1.016 | -2.724 | 1.001 |
|  | (1.722) | (1.777) | (0.744) |
| Married/Cohabitting | -0.770 | 2.386*** | -0.0264 |
|  | (0.640) | (0.736) | (0.276) |
| Non-labour income (family) | -0.00203 | 0.00224 | 4.43e-05 |
|  | (0.00220) | (0.00343) | (0.000785) |
| Log hourly predicted wage rate | 5.005** | 1.365 | 1.076 |
|  | (2.065) | (2.165) | (0.861) |
| Log hourly predicted wage rate sq | -3.717** | 0.831 | 0.00791 |
|  | (1.853) | (1.862) | (0.762) |
| N. household members | 0.00257 | -0.946*** | -0.0604 |
|  | (0.231) | (0.275) | (0.0957) |
| N. younger child 0-4 | -0.945* | 2.629*** | 4.920*** |
|  | (0.574) | (0.637) | (0.307) |
| N. younger child 5-12 | -0.721* | 2.486*** | 1.809*** |
|  | (0.375) | (0.455) | (0.186) |
| N. younger child 13-17 | -0.878* | 0.227 | -0.975*** |
|  | (0.462) | (0.545) | (0.215) |
| Indigenous | 2.540** | -0.274 | -0.681 |
|  | (0.987) | (1.237) | (0.461) |
| Rural area | 0.0462 | 5.406*** | -0.332 |
|  | (0.715) | (0.774) | (0.319) |
| Sector 2 | 1.906* | -5.605*** | 0.477 |
|  | (1.122) | (1.300) | (0.516) |
| Sector 3 | 7.190*** | -6.295*** | 0.275 |
|  | (0.962) | (1.090) | (0.393) |
| Sector 4 | 1.336 | -5.110*** | 0.541 |
|  | (0.864) | (1.092) | (0.394) |
| Region 1 | -1.876** | 5.672*** | 0.870** |
|  | (0.743) | (0.899) | (0.358) |
| Region 2 | -6.725*** | 3.374*** | 0.258 |
|  | (0.911) | (1.021) | (0.421) |
| Constant | 30.80*** | 29.42*** | 11.90*** |
|  | (5.001) | (5.290) | (2.277) |
| R-squared | 0.070 | 0.135 | 0.326 |
| Observations | 3,065 | 3,065 | 3,065 |

Note: Bootstrapped standard errors in parentheses. The sample is restricted to include self-employed and employed mothers of children under 18, who are not students or retirees. Non-labour income is in US dollars. *Rural area is considered for Mexico, Peru and Ecuador, while Colombia is not considered to be a municipality. *p = 0.90; **p = 0.95; ***p = 0.99

**Table B5: SUR estimates of the time devoted by employed and self-employed mothers to paid work, unpaid work, and child care in Colombia (hours per day)**

| (Colombia) | (1) Paid work | (2) Unpaid work | (3) Child care |
|---|---|---|---|
| Self-employed | -1.290*** | 1.001*** | 0.212*** |
| | (0.0880) | (0.0602) | (0.0244) |
| Age | 0.137*** | -0.0261 | -0.0328*** |
| | (0.0370) | (0.0253) | (0.0107) |
| Age squared | -0.182*** | 0.0576* | 0.0199 |
| | (0.0465) | (0.0318) | (0.0126) |
| Secondary education | -0.0495 | 0.175* | -0.0107 |
| | (0.154) | (0.0979) | (0.0401) |
| University education | -0.600*** | 0.0240 | 0.0803 |
| | (0.201) | (0.131) | (0.0509) |
| Married/Cohabitting | -0.416*** | 0.331*** | 0.0124 |
| | (0.0993) | (0.0631) | (0.0236) |
| Non-labour income (family) | -0.000186 | -0.000334*** | -1.15e-05 |
| | (0.000170) | (0.000120) | (4.44e-05) |
| Log hourly predicted wage rate | -0.151 | -0.117 | 0.0884*** |
| | (0.122) | (0.0793) | (0.0281) |
| Log hourly predicted wage rate sq | -0.00607 | -0.0919*** | 0.0327** |
| | (0.0417) | (0.0336) | (0.0131) |
| N. household members | 0.00383 | -0.0635** | 0.0304*** |
| | (0.0426) | (0.0269) | (0.0110) |
| N. younger child 0-4 | -0.170 | 0.235*** | 1.038*** |
| | (0.104) | (0.0700) | (0.0348) |
| N. younger child 5-12 | -0.143** | 0.220*** | 0.0172 |
| | (0.0672) | (0.0455) | (0.0201) |
| N. younger child 13-17 | 0.0262 | 0.0894* | -0.146*** |
| | (0.0834) | (0.0538) | (0.0204) |
| Indigenous | -0.567*** | 0.122 | -0.00873 |
| | (0.201) | (0.128) | (0.0522) |
| Rural area | -0.883*** | 0.708*** | -0.0268 |
| | (0.159) | (0.100) | (0.0398) |
| Sector 2 | 0.281 | -0.0210 | 0.0641 |
| | (0.238) | (0.176) | (0.0617) |
| Sector 3 | 0.731*** | -0.200 | 0.0671 |
| | (0.229) | (0.170) | (0.0563) |
| Sector 4 | 0.0385 | -0.0166 | 0.0899 |
| | (0.220) | (0.163) | (0.0568) |
| Region 1 | -0.446*** | 0.0573 | -0.0404 |
| | (0.130) | (0.0808) | (0.0353) |
| Region 2 | -0.0319 | 0.0987 | -0.0496 |
| | (0.123) | (0.0826) | (0.0331) |
| Region 3 | 0.233* | 0.180** | 0.0534 |
| | (0.125) | (0.0858) | (0.0366) |
| Region 4 | -0.212 | 0.166* | -0.0238 |
| | (0.145) | (0.0930) | (0.0360) |
| Region 5 | 0.407* | -0.379*** | -0.287*** |
| | (0.217) | (0.139) | (0.0506) |
| Constant | 1.388* | 3.730*** | 1.099*** |
| | (0.742) | (0.508) | (0.226) |
| R-squared | 0.191 | 0.091 | 0.328 |
| Observations | 8,273 | 8,273 | 8,273 |

Note: Bootstrapped standard errors in parentheses. The sample is restricted to include self-employed and employed mothers of children under 18, who are not students or retirees.Non-labour income is in US dollars. *Rural area is considered for Mexico, Peru and Ecuador, while Colombia is not considered to be a municipality. We include in Colombia dummy variables to control for the day of the week (Ref.: Sunday). *p = 0.90; **p = 0.95; ***p = 0.99

# Appendix C Classification of activities

**Table C1.**
**Mexico**

| | |
|---|---|
| **Paid work** | Regular work in all jobs |
| **Unpaid work** | Care for or raise farm animals, caring and sow the orchard, collect/ carry/store firewood, collecting fruits/mushrooms/flowers, hunting and fishing for consumption, carry or store water, elaborate or knitting clothes/tablecloth/curtains/other, threshing corn or prepare tortillas, turn the stove or oven, cooking or preparing food or drinks, heating food or drinks, serve food, washing/drying/accommodate dishes, bringing food to a household member to work or an educative center, cleaning or tidying the house, cleaning the exterior of the house, separate/remove/burn trash, wash/tender/drying clothes, separate or fold the clothes, ironing clothes, mend clothes/tablecloth/curtains, collect or bring clothes and shoes, clean shoes, construction or extension of the home, home repair, appliance repair, carry or supervise appliance repair, wash or clean the vehicle, repair or maintain the vehicle, carry or repair the vehicle, home shopping, purchase construction materials, several purchases as: dishes/tablecloths/ furniture/toys/clothing/footwear, carry or bring to an older person's home for medical care, supervise the construction or repair of the house, buy car/house/apartment, make payments/formalities from home, responsible for accounts/household expenses, protection measures for home, waiting home services like gas; The following aid for household members who are dependent: feeding, bathing or cleaning, administer medications, take them to receive medical attention, give special therapy or exercises; The following to help to other households: help with unpaid work, caring for people. |
| **Child care** | Feeding a minor under 6 years, bathing/grooming/dressing a minor under 6 years, bed a minor under 6 years, carrying/bringing/ accompany a minor under 15 to receive medical attention, picking up or dropping of a educative center a minor under 15 years, help with homework a minor under 15 years, attend activities/meetings/festivals in school from a member of household under 15 years. |

Source: Time Use Survey of Mexico 2009

**Table C2.**
**Peru**

| Paid work | Regular work in all jobs. |
|---|---|
| **Unpaid work** | Cooking or preparing food, heating food, prepare food in advance, wash dishes and clean the kitchen, take food to household members to work or study centre, collect firewood for cooking, lighting firewood for cooking, prepare pastries for home, making beds and ordering room, clean the bathroom, general cleanliness of housing, accommodate and fix housing, tasks related to the trash, carry water for household consumption, clean or wash vehicles home, laundry, ironing clothes, accommodate clothing, take clothes to the laundry, shoe care, mending clothing, home repairs, making housing constructions, appliance repairs, carry appliances repair, care for household members who are sick, bring the hospital household members who are sick, bring to receive therapy household members who are sick, prepare home remedies, buy household items, small household purchases, buying medicine for home, buy school supplies, buy clothes, buy furniture, buy spare parts for appliances, buy cars, buy spare parts for cars, farm animal breeding, plant/ watering/fertilize the orchard, pick fruit or herbs in the orchard, carrying water for the orchard or animals, supervise home repairs, supervising chores, responsibility for household accounts, several payments, several formalities, charge government subsidies, responsible for the safety of home, watch for the delivery of a service in the home such as gas, paperwork to rent or buy a house; The following aid for household members who are dependent: cook, clean room, washing/ironing clothes, feed them, bathing, care during the hours of the night, picking up or dropping care center/study center, carry health center, practice therapy; The following to help to other households: cooking, general cleaning, fetching water, washing and ironing clothes, home repairs, care of children, health care, carry to medical center, help with shopping, perform formalities, take to work/educational centre. |
| **Child care** | Breastfeed newborn, feeding a baby or child, bathing/dressing/ changing diaper a baby or child, therapy practice for a baby/child /adolescent, play/read stories to a baby or child, help with homework for a child or teenager, attend activities at an educational center that assists a child or adolescent who is a member of the household, carry household members to educational centre, pick up household members at educational centre. |

Source: Time Use Survey of Peru 2010

**Table C3.**
**Panama**

| | |
|---|---|
| **Paid work** | Regular work in all jobs |
| **Unpaid work** | Care or raise farm animals; collecting firewood/flowers/fruits; activity in the orchard or land; elaborate processed products such as cheese or honey; food preparation time; washing dishes; clean kitchen; bring food to household members to work or educative center; prepare pies/preserves/sweets; make beds; clean bathroom; clean the house; tasks related to garbage treatment; carrying water for household consumption; washing vehicles; make home repairs; repair vehicles; repair appliances; bring to repair vehicles; bring to repair appliances; wash clothes; ironing clothes; carry laundry; fold clothes; shoe cleaning; make arrangements to clothing/tablecloths; home shopping; make small purchases for the home; buy medicine; purchases of goods / tools; purchases of school supplies and clothing; buy vehicles; move to another home or rearrange spaces of the home; accompany any household member to rehabilitation; accompany a sick household member during the day or night; accompany or care for sick household member in the hospital; preparation of home remedies; other activities of unpaid work, supervise home repairs, perform online transactions; procedures related to housing services; procedures obtaining passports, national identity card or similar procedures; payments of basic household services; supervise domestic activities; manage expense accounts and household income; collect wages / scholarships / grants of household members; take over security of the home; be aware of service delivery to the household such as gas; search or make arrangements to rent or buy housing. Helping other households in the following tasks: housework, child care, care of disabled people, shopping or procedures; Help disabled household members in the following tasks: feeding, grooming, provide therapy, practice some therapy, be aware at night for your care, prepare special food, take it to the medical service or hospital, cleaning your room, wash or iron your clothes. |
| **Child care** | Child feeding, bathing children, practices special exercise or therapy for children, play/talk or read stories to a child, help with homework for a child or teenager, attend activities at an educational center that assists a child or adolescent who is a member of the household, carry and/or pick up household members to a educational centre. |

Source: Time Use Survey of Panama 2011

## Table C4.
## Ecuador

| Paid work | Regular work in all jobs. |
|---|---|
| **Unpaid work** | Preparing food, serving food, washing dishes, cleaning the place where food is prepared, thresh and grinding grain, beverage preparation, slaughtering of animals for consumption, bringing food to a household member, turn the wood/coal stove, making preserves, make bread, preparing other food products, prepare milk, dried beans, dried meat, dried fish products, making beds, cleaning bathrooms, cleaning house, fetch water for household consumption, wash a vehicle, littering, shoe cleaning, laundry, ironing clothes, take clothes to the cleaners, fold clothes, draw up or mend clothes, buy meats/vegetables/fruits, daily shopping, buy medicine, buy school supplies/clothes/shoes, buy goods/ appliances, buy orthopedic appliances, moving home, accommodating house (terrace, closet), , accompany household member to receive medical attention, carry or pick up a household member to work, accompany a household member to a special class or training, caring for sick household member by day or night, carry a household member to a health center, carry a household member to a therapist, prepare home remedies for any household member, general home repair, repairs means of transportation, appliance repair, care for farm animals, milking/shearing/collect eggs, collecting water for the terrain, collecting firewood/mushrooms/herbs, collect flowers and fruits, hunting and fishing for consumption by household members, most orchard activities (sowing, harvesting), charge government subsidies, rental housing formalities, payment basic services, payment formalities, order documents, supervising chores, do household accounts, home security monitoring; supervising home repairs; The following aid for household members who are disabled; care, feeding, grooming, therapies, care at night, giving special meal, take/ accompany therapies or medical services, perform formalities, room cleaning, washing and ironing clothes separately; The following to help to other households: help with unpaid work, caring people. |
| **Child care** | Child feeding, bathing children, practices special exercise or therapy for children, play/talk/read stories to children, attending meetings/ festivals/other activities in school, help with homework, carry or pick up a household member to an educational center. |

Source: Time Use Survey of Ecuador 2012

**Table C5.**
**Colombia**

| | |
|---|---|
| **Paid work** | Regular work in all jobs. |
| **Unpaid work** | Prepare and serve food, clear the dishes/washing dishes, bring the food to household members to their work/study center, washing/ironing/ store clothes, repairing clothes/tablecloths/blankets/shoes/etc, produce clothes for persons in this household, picking up or dropping off clothing/shoes, clean housing, pet care/care garden/clean any household vehicle, bring water for household use, bring fuel (coal, gas, oil) for cooking, build/expand housing, repair/make housing installations, repair appliances/furniture/household vehicles, carry repair appliances/furniture/household vehicles, buy household items, buy or pick up medicines, supervise or direct household activities, pay bills/doing formalities, find housing for rent or purchase, charge government subsidies, displacements to make purchases or formalities, carry or bring any member of this household to social/cultural/recreational events, help without pay at a job or business of any member of the household, activities like planting/watering/ fertilize/weeding the orchard, raise animals for consumption of the household, planting/watering/ weeding crops for sale without being paid, raising/hunting/ fishing animals for sale without being paid, mineral extraction without being paid, collect firewood for home, other orchard activities, be aware of household members, feed or assist in feeding to household members from 18 years of age who need help, bathing/dressing to household members from 18 years of age who need help, give medicines/therapies provide/treatment of diseases to household members from 18 years of age who need help, accompany to medical appointments or other health care to household members from 18 years of age who need help, carry or bring to medical appointments or other health care to household members from 18 years of age who need help, other activities related to unpaid work; The following to help in other households: help without pay at a job or business, help with household chores, minor home repairs or yard work, build or make any extension of the house, care for children under 12 years who are not ill or are disabled, care for over 60 who are not ill or are disabled, care for sick people, care for the disabled, travel for aid to other households, help with activities like planting/watering/fertilize/ weeding the orchard, raise animals for that household consumption, plant/watering/weeding crops for sale without being paid, raising/ hunting/fishing animals for sale without being paid, extraction of minerals without being paid, gather wood for the household, other activities that orchard. |
| **Child care** | Feed or assist in feeding for minor household members, bathing/dressing minor household members, give medicines/therapies or provide/ treatment for diseases to minor household members, play/read stories/carry to the park for household members under five years of age, carry or bring to an educative center a household member, help with homework to minor household members. |

Source: Time Use Survey of Colombia 2012
Note: The variables considered for child care come from two types of questions, direct questions and indirect questions. Indirect questions ask for the time spent by respondents to help other household members. These questions give the option of indicating to whom this aid is provided, so that aid to household members under 18 years is considered in the category of child care, and aid to household members who are 18 years of age or older is considered in the category of unpaid work. Direct questions are: Play/read stories/carry to the park household members under five years of age, carry or bring to an educative center a household member. Indirect questions are: feed or assist in feeding household members, bathing/dressing household members, give medicines/therapies provide/treatment for diseases to household members, help with homework for household members.