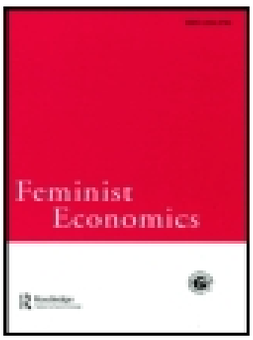

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Verónica Amarante and Cecilia Rossel

ABSTRACT

Although Colombia, Mexico, Peru, and Uruguay show similar empirical patterns in terms of time women devote to unpaid work, they also present important variations in how unpaid work is distributed between men and women. Using time-use surveys for the 2007–10 period, this study finds a uniform pattern across the four countries regarding the main individual-level variables related to the allocation of unpaid work. When decomposing the gender gap in hours devoted to unpaid work, most of the difference cannot be attributed to variations in observable characteristics of men and women: the unexplained part of the gap is the dominant part. Results suggest that both the strength of traditional gender roles and existing welfare architecture are relevant factors in understanding variations in how unpaid work is distributed between men and women in these four countries. The results reaffirm that powerful interventions are needed to shift gender norms about unpaid work.

KEYWORDS

Unpaid household work, determinants, Latin America, time-use surveys

JEL Codes: C81, D13, C83

INTRODUCTION

In the developed world, an extensive literature describes the unequal distribution of unpaid work between men and women, relating these differences to a set of variables. At the individual level, socioeconomic status, education, age, and household composition have been associated with different patterns of unpaid work allocation. At the aggregate level, the distribution of unpaid work between men and women across countries is related to economic and demographic factors, welfare policy configurations, as well as cultural values about gender equality and the role of families. In Latin America, research on unpaid work is much more recent and fragmented than in the developed world. Although there is growing evidence from time-use surveys and scholars have begun to study patterns

in the distribution of unpaid work, systematic and comparative quantitative analysis is still weak.

There is an important need to understand the patterns and factors related to the allocation of unpaid work in Latin America. In over two decades, the situation of Latin American women in the labor market has changed dramatically; between 1990 and 2013, women's participation rates rose from 41 percent to 52 percent.[1] However, the region is still characterized by extremely rigid patterns in the gender distribution of labor within homes (International Labour Organization [ILO] 2009). As a consequence, achievements in women's access to paid work have resulted mainly in an increase in the total number of hours they work rather than in a redistribution of paid and unpaid work within families (Economic Commission for Latin America and the Caribbean [ECLAC] 2010a, 2010b). This suggests the need to refine the analysis and move toward more comprehensive analytical tools to explore what is happening when households – and women specifically – allocate all or part of their time to unpaid work, and what main factors – at the individual and the national level – explain this distribution.

This article offers original evidence on the gender gap in the distribution of unpaid work in Latin America and the main individual-level variables related to it. By processing new harmonized time-use surveys from Colombia, Mexico, Peru, and Uruguay, countries with different welfare regimes as well as important variations in terms of gender values and gender inequality, it identifies the main individual-level variables that are related to the allocation of unpaid work in the region. This analysis suggests the relevance of traditional gender roles and welfare policies for explaining gender inequality in the allocation of unpaid work in these four countries. This research offers empirical evidence for understanding how and why unpaid work is allocated between men and women in Latin America, which contributes to the literature focusing on this issue from a comparative perspective.

UNPAID HOUSEHOLD WORK AND GENDER

Following the third-party criterion (Reid 1934), an activity is usually considered work if a person could have hired someone else to produce or complete it. Activities such as leisure and personal care are consequently not considered work.[2] Work can be paid or unpaid. Within unpaid work, some activities are considered economic work and are therefore included in the United Nations System of National Accounts (SNA), whereas other activities are excluded from the boundaries of economic production.[3] Table 1 provides a summary of the concepts related to work; this article focuses on those included in the shaded cells. Our interest is concentrated on unpaid housework and unpaid direct care work, which are beyond the

Table 1 Concepts of work

Work	Unpaid	(Economic)	Own-use production of goods, and some types of production for use by others		Building a house, subsistence production work, collection of basic necessities, unpaid family work for crop production that reaches the market, unpaid trainee work	Within the 2008 SNA production boundary
		(Non-economic)	Own-use services' production work	Unpaid household work/ Unpaid care work	*Unpaid housework* (cleaning, laundry, minor home maintenance, meal preparation and cooking, grocery shopping, administrative tasks related to household maintenance, other household chores, pet and garden care)	Beyond the 2008 SNA production boundary
					Unpaid direct care work (providing care for infants and children, care for the permanently ill or temporarily sick, as well as for older relatives and the disabled)	Beyond the 2008 SNA production boundary
		(Non-economic)	Some types of production for use by others	Unpaid non-household work	Volunteer work in in market and non-market units, and in households producing goods	Within the 2008 SNA production boundary
					Volunteer work for community, helping other households (services)	Beyond the 2008 SNA production boundary
	Paid	(Economic)	Market and non-market units	Work performed for others in exchange for pay or profit		Within the 2008 SNA production boundary
Not work	*Leisure time* (sports, entertainment activities, socializing with friends and family, playing games, watching television, using computers, recreational activities), *self-care (*sleeping, eating and drinking, and other household, medical, and personal service), activities that cannot be performed by another person on one's own behalf					

Sources: Authors' elaboration based on Antonopoulos (2009) and ILO (2013).

2008 SNA production boundary. Although they are not synonymous, these activities are usually referred to collectively as unpaid care work (Budlender 2008).[4]

Unpaid household work is key to understanding gender inequality. Extensive empirical research on this topic in developed countries reveals that women still do most of the unpaid work, and men tend to devote more time to paid market work. Although this has been slowly changing during the last decades – due to a global decline in the total time devoted to unpaid housework and also to changes in cultural patterns (Bianchi et al. 2000; Neilson and Stanfors 2014) – studies based on the analysis of time-use surveys have confirmed this systematic gender bias both over the years and cross-nationally (Budlender 2004, 2010; Kalenkoski, Ribar, and Stratton 2005, 2006; Anxo et al. 2007; Krantz-Kent 2009; Antonopoulos and Hirway 2010; Treas and Drobnic 2010; Miranda 2011; Organisation for Economic Co-operation and Development [OECD] 2011).

Unpaid work has become more relevant because, among other changes, women are more engaged in paid labor than they were decades ago (Sainsbury 1999; Daly and Rake 2003). Although evidence also reveals a slow change in the role of men in unpaid work (Bianchi et al. 2000; Gershuny 2000; Hook 2006), the gender bias in the distribution of unpaid work within households remains. Women usually add unpaid work hours to the amount of time they devote to paid activities, having to face a double burden or a "second shift" of unpaid work (Hochschild 1989; Shelton 1992).

The implications of this unequal distribution of unpaid work are straightforward. The burden of unpaid work is directly related to limitations and obstacles faced by women in accessing paid work, leading to interrupted, precarious, and weak ties to the labor market. This is associated with income poverty and vulnerability (Bittman 2004a), and translates into unequal access to social security and other social benefits derived from formal employment. It is also related to time-poverty (Vickery 1977; Bittman 2004b; Burchardt 2008; Merz and Rathjen 2014), and unequal access to free time and leisure, as reflected by women's higher probability of being time-poor when compared to men (Sayer 2005).

EXPLAINING TIME ALLOCATION IN UNPAID HOUSEHOLD WORK

The bulk of research in the developed world indicates that, at the individual level, time devoted to unpaid household work (including housework and direct care) is related to a wide set of variables. Previous research on the United States and Australia indicates that married women – even if they do not have children – tend to do more unpaid household work than single women or women in unmarried couples, a variation that is

not present among men (Shelton and John 1993; Baxter 2005). Focusing on the UK, other authors have found that there is no solid evidence of a different pattern in time allocation between married and unmarried parents, although evidence does prove that there are significant differences between these households and single-parent households – the latter tend to spend more time on childcare (Kalenkoski, Ribar, and Stratton 2006).

As expected, women's employment and level of education in the US and the UK are usually negatively associated with time spent in unpaid household work (Gershuny and Robinson 1988; Shelton 1992; Brines 1994). The amount of time men spend in unpaid work, however, does not correlate with these variables in the same way. Men's employment, for example, does not affect the amount of time they spend in household labor (Shelton and John 1993).

In Australia, a woman's wage rate has been found to be negatively associated with the amount of time she devotes to unpaid activities (Williams 1999). In the UK and the Netherlands, the number and age of children in the household, socioeconomic status, and area of residence (rural/urban) are other significant variables associated with unpaid household work (Kalenkoski, Ribar, and Stratton 2005; de Meester, Mulder, and Fortuijn 2007; Treas and Drobnic 2010). In addition, the presence of other adults in the household reduces the amount of time spent on childcare (Kalenkoski, Ribar, and Stratton 2005). Recent research in several European countries has also shown that these factors tend to vary depending on the type of unpaid work (within household and non-household) that is allocated (McCloughan et al. 2011).

Beyond the individual level, institutional and cultural factors may also explain differences in the allocation of time to unpaid work in different countries. Economic development, labor market configurations (particularly women's participation in the labor market), institutions, and demographic aspects are identified in the literature from developed countries as key factors related to the amount of unpaid work that is done and the predominant role of women in carrying it out in different countries (Lewis 1992; Folbre and Nelson 2000; Gornick and Meyers 2003; Hook 2006; Antonopoulos and Hirway 2010; Miranda 2011; Neilson and Stanfors 2014). Labor market institutions (and in particular, legislation promoting gender equality) and large public sectors may influence the division of labor (Iversen and Rosenbluth 2006). Also, when welfare states make the distribution of unpaid work a policy issue, they tend to reduce the burden on families – and particularly on women – associated with these activities. By contrast, when these issues are not in the policy agenda, welfare regimes lean on household welfare production, largely based on women's unpaid labor, reproducing deep gender inequalities (Lewis 1992; Daly and Rake 2003). The literature consistently points to childcare policy; maternity, paternity, and parental leave; and flexible working arrangements

as independent variables for explaining the distribution of unpaid work between men and women across countries (Leira 1992; Sainsbury 1994; Gornick and Meyers 2003). This holds not only within the developed world but also while comparing more- and less-developed countries (Miranda 2011).

Cultural factors and social norms about gender roles ("gender ideology") also play a key role (Lewis 2003). More egalitarian beliefs about men's and women's roles lead to a more egalitarian division of labor within households. In other words, there seems to be a relationship between national contexts of gender socialization and normative expectations about gender roles in the distribution of unpaid work between men and women. It must be recognized that both institutional and cultural factors may influence unpaid work in different directions.

Comparative evidence for developing countries is scarcer, although one exception is Debbie Budlender's (2008) work. For Latin America, evidence has confirmed that women devote much more time to unpaid household work than men (Batthyány 2004; Aguirre 2007; Arriagada 2007; ECLAC 2007, 2010b; Esquivel 2009; Gammage 2010; Calderón Magaña 2013), and there seems to be a segmentation in the type of activities done by men and women regarding unpaid domestic work (Aguirre and Batthyány 2005; Villamizar García-Herreros 2011). Lower-income women do more hours of unpaid work than those with higher incomes, but among men, the time spent on unpaid work does not seem to be affected by income (ECLAC 2010b). Given that in the region, the provision of public childcare services is still very weak, poor women are compelled to take primary responsibility for the care of children (ECLAC 2010b). Other recent studies report the importance of ethnic and cultural variables as well as gender values (Canelas and Salazar 2014).

METHODOLOGICAL ASPECTS

Time-use surveys

Time-use surveys provide information about the activities done by individuals in a certain period and the amount of time they spent on each activity. In Latin America, these surveys are based on what is known as the stylized approach (Budlender 2007), which consists of asking the respondents to specify how much time they devote to performing a predetermined set of activities in a certain period of reference.[5] The first round of this type of survey was conducted in the region in the early 2000s. Since then, several countries have improved their questionnaires and samples (Milosavljevic 2009; Aguirre and Ferrari 2014).[6]

Despite these improvements, several problems related to the quality of information collected and the homogenization of criteria still persist.

Respondents may take different approaches to answer questions; for example, some may include the time spent taking their children to school in the activity of caring for their children, while others may consider this to be a different activity. Responses can also be affected by cultural factors: people may tend to underestimate the amount of time devoted to certain activities usually perceived as not socially valued (leisure or housework), while they may emphasize other ones that are perceived as valued or important (childcare). In addition, there are difficulties with accurately reporting the time spent on activities that are intermittently done throughout the day. Finally, simultaneously carrying out of different activities is another problem that can affect the quality of the information. This may be particularly relevant in the case of household work activities that can be completed simultaneously with other tasks (Budlender 2007). Even if achieving internationally, or even regionally, comparable time-use statistics is still a challenge for Latin American countries, time-use surveys are nonetheless useful for illustrating time-use patterns and differences both within and between households of different strata or compositions.[7] They can also shed light on different distribution patterns of paid and unpaid work between countries, helping to identify the possible influence of cultural and even demographic factors on those differences.

In this paper, we use time-use surveys for Colombia (2010; DANE 2010), Mexico (2009; Instituto Nacional de Estadística y Geografía [INEGI] 2009), Peru (2010; Instituto Nacional de Estadísticañ e Informática [INEI] 2010), and Uruguay (2007; Instituto Nacional de Estadística [INE] 2007). In all cases except Peru, time-use data was collected by means of a special module in the traditional household survey. In Peru, a special time-use survey was carried out. The main characteristics of each survey and the differences among them – regarding age groups for which information is collected, the respondent to time-use questions, and the reference period – are presented in Table 2.[8]

In the four surveys analyzed in this article, there are different approaches to asking about the time spent on household work. Although they are broadly comparable, the activities covered by the questions in each questionnaire are not the same in all countries (see Table 2). For comparative purposes, our analysis refers to individuals between 15 and 65 years old (sample sizes included in Table 2); this age group also corresponds with the one used internationally to report labor market statistics. Unpaid and paid hours are expressed in weekly terms.

Econometric model

To explore the variables associated with hours of unpaid domestic work, we estimate an econometric model in which the dependent variable is weekly hours of unpaid household work (Y_i), and the independent variables

Table 2 Main characteristics of time-use surveys

Country and year	*Implementation*	*Coverage*	*Time-use information for*	*Respondent*	*Activities covered*	*Reference period*	*Sample size*	*Individuals reporting zero time devoted to unpaid household work*
Colombia (2010)	Special module in Household Survey	National	All members of the household age 10 years or older	Direct responses from household members age 18 or older or from members between the ages of 10 and 17 who currently hold a job or are looking for a job. For the rest, responses are taken from any adult family member (18 years or older) who can adequately answer for them.	*Unpaid housework* (Carry out household chores? Dressmaking, tailoring for household members?) *Unpaid direct care work to household members* (Childcare? Care of sick and/or disabled persons?)	Week	290,178 (W), 247,517 (M), 537,695 (T)	6.9% (W), 41.2% (M), 23.6% (T)

Mexico (2009)	Special module in Income and Expenditure Household Survey	National	All members of the household age 12 years or older	Direct responses from each member of the household, age 12 years or older	*Unpaid housework* (How much time did you devote to household chores? How much time did you devote to general household maintenance or to the maintenance and repair of furniture, appliances, and vehicles?) *Unpaid direct care work to household members* (How much time did you devote to care and attend to children, the elderly, or sick or disabled persons without receiving any pay?)	Week	36,132 (W), 32,983 (M), 69,115 (T)	8.7% (W), 39.1% (M), 23.3% (T)

(*Continued*).

Table 2 Continued.

Country and year	*Implementation*	*Coverage*	*Time-use information for*	*Respondent*	*Activities covered*	*Reference period*	*Sample size*	*Individuals reporting zero time devoted to unpaid household work*
Peru (2010)	Independent survey	National	All members of the household age 12 years or older	Direct responses from each member of the household, age 12 years or older	*Unpaid housework* (Preparing, cooking, heating up, or serving breakfast, lunch and/or dinner. Dishwashing, cleaning up the cooking area. General household cleaning. Others.) *Unpaid direct care work to household members (*Childcare, care of the sick, care of disabled persons.)	Week	5,546 (W), 5,262 (M), 10,808 (T)	4.9% (W), 8.0% (M), 6.5% (T)

Uruguay (2007)	Special module in Household Survey	National	All members of the household age 14 years or older	Member of the household identified as the main caretaker of household chores, age 14 years or older. 74% of respondents are women.	*Unpaid housework* (Cooking, cleaning, shopping, household maintenance and repairs, water and firewood collection, crop care and animal husbandry, pet care.) *Unpaid direct care work to household members (*Childcare, care of others [not including children.])	Day	3,821 (W), 3,352 (M), 7,173 (T)	3.0% (W), 15.6% (M), 8.9% (T)

Sources: Authors' elaboration based on time-use surveys from Colombia (DANE 2010), Mexico (INEGI 2009), Uruguay (INE 2007), and Peru (INEI 2010).
Notes: W = Women; M = Men; T = Total.

reflect possible factors that may influence decisions about the allocation of hours to unpaid work (X). In the first step, these X variables include personal characteristics (gender, age, educational level, labor market situation, and relative income) and household characteristics (household composition, presence of children and their age, household income, and ownership of appliances). Given the importance of the gender variable in our results, the regression is then estimated for groups $g =$ men (m) and women (f), according to the following equation:

$$Y_{ig} = X_{ig}\beta_{ig} + \varepsilon_{ig} \tag{1}$$

Our dependent variable Y_i has an upper and a lower limit. Individual responses have a lower bound of zero. In our data, a considerable proportion of individuals report devoting zero hours to unpaid household work (23 percent in Colombia, 23.3 percent in Mexico, 6.5 percent in Peru, and 8.9 percent in Uruguay). This proportion is especially significant among men (41.2 percent versus 6.9 percent among women in Colombia, 39.1 percent versus 8.7 percent in Mexico, 8.0 percent versus 4.9 percent in Peru, and 15.6 percent versus 3.0 percent in Uruguay). Additionally, we define an upper bound of 135 hours, assuming that any person must devote at least five hours per day to sleeping and taking care of herself.[9]

Given that hours of unpaid work are non-negative with a substantial number of observations clustered at zero, a natural approach is to estimate censored regression (Tobit) models to explore the variables associated with time devoted to unpaid household work, as the estimation of Equation 1 by ordinary least squares (OLS) may lead to biased parameters. We consider all observations (including zeros) and estimate Tobit models through maximum likelihood, which is adequate to deal with significant censoring in the data. Similar strategies have been used in other econometric studies of time use (Floro and Miles 2003; Kalenkoski, Ribar, and Stratton 2005, 2007, 2009; Kimmel and Connelly 2007; Budlender 2008).[10]

The basic form of the censored regression model is given by the latent variable formulation:

$$Y_{ig}{}^{*} = X_{ig}\beta_{ig} + \varepsilon_{ig} \tag{2}$$

combined with the censoring rule, which in our case is (for $\alpha_{\downarrow}1 = 0$ and $\alpha_{\downarrow}2 = 135$)

$$Y_{ig} = \alpha_1 \text{ if } Y_{ig}{}^{*} \leq \alpha_1 \tag{3}$$

$$Y_{ig} = \alpha_2 \text{ if } Y_{ig}{}^{*} \geq \alpha_2 \tag{4}$$

$$Y_{ig} = Y_{ig}{}^{*} = X_{ig}\beta_g + \in_{ig} \text{ if } \alpha_{1<} Y_{ig}{}^{*} < \alpha_2 \tag{5}$$

$$\varepsilon_{ig} \sim N(0, \sigma_g^2) \tag{6}$$

Decomposition of the unpaid hours gap

The Oaxaca–Blinder approach provides a useful method for analyzing gaps in mean outcomes between two groups. It consists of decomposing the difference into a part that is explained by differences in observed characteristics of the groups, and a part that is due to differences in the estimated coefficients associated with each characteristic (Oaxaca 1973; Blinder 1973). While this method has become a standard methodology for studying wage differentials by gender or ethnicity, here we apply it for analysis of unpaid work gaps. Mean differences between men and women in the outcome variable, arising from Equation 1, can be expressed as:

$$\begin{aligned}\overline{Y_m} - \overline{Y_f} &= [E_{Bm}(Y_{im}|X_{im}) - E_{Bm}(Y_{if}|X_{if})] + [E_{Bm}(Y_{if}|X_{if}) - E_{Bf}(Y_{if}|X_{if})] \\ &= (\overline{X}_m - \overline{X}_f)\widehat{\beta}_m - \overline{X}_f(\widehat{\beta}_m - \widehat{\beta}_f) \qquad (7)\end{aligned}$$

where the first term of Equation 7 shows the part of the difference that can be attributed to differences in observable characteristics of men and women, while the second part shows the differential that responds to different coefficient estimates. This last unexplained part of the differential is usually interpreted as discrimination, although it may also reflect the effect of group differences in unobserved characteristics.

When the observed outcome variable comes from a Tobit model, the standard OLS decomposition may not be appropriate because the conditional expectations $E(Y_{ig}|X_{ig})$ in the Tobit model depend on the standard error σ_g. Applying the decomposition method proposed by Thomas K. Bauer and Mathias Sinning (2010) for Tobit models, unpaid hours gap can be decomposed into a part explained by differences in observed characteristics and a part attributable to differences in the estimated coefficients – that is, the unexplained part.

WELFARE, GENDER, AND WORK IN SELECT LATIN AMERICAN COUNTRIES

In this paper, we focus on Colombia, Mexico, Peru, and Uruguay. As reflected in Table 3, our selected countries represent an interesting variety of welfare regimes, women's labor market participation, and social protection systems, as well as demonstrating important differences regarding gender attitudes. They also have reliable and recent data from time-use surveys.

Uruguay stands out in the region because of its relatively old and mature social protection system. Compared to most countries in Latin America, Uruguay has developed a wide net of cash benefits and social services with high coverage (Filgueira 2001; ECLAC 2010c), which has yielded positive results in terms of reducing poverty and inequality (ECLAC 2013).

Table 3 Colombia, Mexico, Peru, and Uruguay: Welfare and social protection features, results, and selected gender indicators

	Type of welfare regime	*Social security coverage among salaried workers*	*Health coverage among salaried workers*	*Welfare gaps*	*Inequality*	*Poverty rate*	*Women's participation rates*	*Position in Gender Inequality Index*	*Gender Values Index*
Colombia	Dual, informal-familiarist	57.2	91.9	Moderate	0.536	30.7	58	92	2.93
Mexico	Dual, state protectionist	41.3	71.8	Moderate	0.49	37.1	50	74	2.53
Peru	Dual to exclusionary, informal-familiarist	50.4	65.0	Moderate	0.44	23.9	64	82	3.04
Uruguay	Universalistic, stratified universalism, state protectionist	84.7	98.6	Modest	0.382	5.7	56	61	3.43

Sources: Data on type of welfare are based on Filgueira (2005) and Martínez Franzoni (2008). Data on social security and health coverage among salaried workers are from ECLAC (2013); on welfare gaps from ECLAC (2010c); and on inequality, poverty, and women's participation rates from ECLAC (2014).
Notes: The Gender Inequality Index (GII) is calculated by the United Nations Development Programme. Details on the Gender Values Index are included in note 12.

The country has a long tradition in health services, labor market regulations, and a noncontributory provision for the elderly and families with children.

Mexico has been classified among the dual welfare regimes in the region, with highly stratified welfare benefits and services (Filgueira 2005). Its social protection system is highly segmented, and the market plays a key role in some relevant areas (for example, in the pension system and in basic healthcare). Social security and health stratification result in limited coverage and in a system that works for urban sectors and formal workers (like public workers or workers from large industries), but fails to protect urban informal workers, as well as the rural and indigenous population (Barba Solano 2004). The main reforms carried out in the last decades have contributed to the institutionalization of the dual architecture of the welfare system (Valencia Lomelí, Foust Rodríguez, and Tetreault Weber 2013). Colombia has been identified as a dual regime with exclusionary features. Although its social protection system has improved both in basic benefits' coverage and a noncontributory provision, it remains the most unequal country (in terms of income distribution) among the four. Peru also has features of a dual model, but in the last decades seems to have moved toward an exclusionary model (Filgueira 2005). Its social protection system privileges urban formal workers, and a substantial portion of the population remains uncovered by the main social policies.

The four countries are also different in terms of gender values and gender equality. Uruguay has historically had a prominent place in the region's landscape regarding gender equality. The country was one of the earliest in the region to pass legislation on divorce and women's voting rights, and it has a relatively high level of women's participation in the labor market. This reflects Uruguay's relatively weak version of the male breadwinner stereotype within the Latin American landscape (Pribble 2006). Uruguay also stands out because of the steps taken to address unpaid household work as a relevant public policy issue. In the last decade, the country has expanded the provision of public childcare services for low-income families (Salvador 2007). More recently, a growing policy debate on care policies led to the creation of the National Care System, which includes childcare services for children up to age 3 as one of its four main components (Ministerio de Desarrollo Social [MIDES] 2014). Finally, a parental component was included for maternity leave in 2013.

In Mexico, on the other hand, the male breadwinner model is still predominant (Pedrero 2005). The country still has not ratified international conventions – such as ILO Convention 156 – on workers with family responsibilities, and its maternity protection legislation still falls short of ILO's recommendations. Women's participation in the labor market is relatively high, but it is mostly informal. The main pillars of the social protection system were designed under a traditional model of

women's roles and have not changed much since then (Colinas 2008). Peru and Colombia tend to rely on more informal practices and on the role of families – and therefore, on women – in the production of welfare (Martínez Franzoni 2008). In Peru, despite the fact that gender equality is established in the 1979 constitution, the social organization of care relies on family obligations and, within families, on women. Colombia stands out for its specific legislation favoring women's participation in government and a relatively high percentage of women in politics and in government agencies. However – despite recently approved legislation – violence against women remains a major concern (OECD 2015). Also, material deprivation is gender related, and women's options for economic autonomy are still very limited and precarious (Villamizar García-Herreros 2011). Compared to the other three countries, Colombia seems overall to be the country with the most gender inequality.

Two indicators of gender values and attitudes confirm the relative positions of our selected countries. One of these indicators is an index on gender attitudes, based on information from the World Value Survey (waves 2010–14; 2015). The index ranges from –8 for the most sexist country, to 8 for the least sexist country. It was built using eight questions from the survey that measure an individual's degree of agreement regarding women's roles in the labor market and in the household.[11] The other indicator, the Gender Inequality Index from the United Nations, combines measures of reproductive health, empowerment, and labor market participation. Under both indicators, Uruguay appears to be the least sexist country, whereas Colombia is the most sexist.

The amount of time women devote to unpaid work across the four countries ranges from 33 hours per week in Uruguay and Colombia to 38 and 39 in Peru and Mexico, respectively (Table 4).[12] The variations in gender gaps for unpaid work – women devote more time to unpaid work than men by 4.29 hours in Colombia, 3.75 in Mexico, 2.71 in Peru, and 3 in Uruguay – are both significant and relatively consistent with previous data on gender inequality. It is important to note that these differences are greater than those identified in OECD countries, where, with the exception of Asian countries, the ratio of female to male unpaid work ranges between 1 and 2 hours. For the countries in our sample, gender gaps for total work are significantly lower than those for unpaid work, ranging from 1.18 in Peru to 1.02 in Mexico. With the exception of Mexico, these ratios are still higher than those of developed countries.[13]

FACTORS RELATED TO THE ALLOCATION OF UNPAID CARE WORK IN LATIN AMERICA

To consider all factors that may be related to the amount of time allocated to unpaid work, we estimated econometric regressions in which

Table 4 Unpaid and paid working hours per week around the world

	Unpaid		*Paid*		*Total*		*Unpaid*	*Paid*	*Total*
	W	*M*	*W*	*M*	*W*	*M*	*W/M*	*W/M*	*W/M*
Colombia	30	7	20	38	50	45	4.29	0.53	1.11
Mexico	30	8	18	39	48	47	3.75	0.46	1.02
Peru	38	14	33	47	72	61	2.71	0.7	1.18
Uruguay	33	11	21	37	54	48	3	0.57	1.13
Average	33	10	23	40	56	50	3.3	0.58	1.12
Nordic[1]	26	20	26	33	52	52	1.3	0.79	1
Continental Europe[2]	32	16	24	37	56	53	2	0.65	1.06
Anglo-Saxon[3]	32	18	25	38	57	55	1.78	0.66	1.04
Asia[4]	31	6	28	52	59	58	5.17	0.54	1.02
Eastern Europe[5]	33	18	27	37	60	55	1.83	0.73	1.09

Sources: Authors' elaboration based on time-use surveys from Colombia, Mexico, Uruguay, and Peru, and OECD Social Indicators.

Notes: W = Women; M = Men; W/M = % of women's work divided by % of men's work (in hours).

[1] Nordic region: Denmark, Finland, Norway, and Sweden.

[2] Continental Europe: Austria, Belgium, France, Germany, Italy, Netherlands, Portugal, and Spain.

[3] Anglo-Saxon: Australia, Canada, Ireland, US, and UK.

[4] Asia: Japan and Korea.

[5] Eastern Europe: Estonia, Hungary, Poland, and Slovenia.

the dependent variable is time devoted to unpaid household work, expressed in weekly hours. Our independent variables include personal and household characteristics. A summary table of all variables is presented in the Supplemental Online Appendix. One important concern about our methodological strategy is the potential endogeneity of the variables related to labor attachment or income, due both to potential reverse causation and to omitted variables. In the first case, more time dedicated to paid work (particularly formal paid work) may imply a decrease in the possibility of attending to unpaid work. At the same time, more time devoted to unpaid work may be an obstacle to participation in the paid labor market. In the case of omitted variables, some variables that may influence unpaid work may also have an effect on some of our independent variables. Solving this econometric problem is beyond the scope of this article, so it is important to keep in mind that our estimates do not aim to reflect casual relationships, but rather to report statistical correlations.

Results for the estimates for all individuals in each country are summarized in Table 5. The first striking fact is that these results are very consistent across countries. In all countries, being a man is significantly associated with a decrease in the amount of time devoted to unpaid household work. After controlling for all other confounding factors, the magnitude of the coefficient for gender is similar in the four countries,

Table 5 Unpaid household work (hours per week; Tobit estimates)

	Colombia	*Mexico*	*Peru*	*Uruguay*
Gender (Man = 1)	− 23.04 (0.0637)***	− 20.18 (0.213)***	− 21.15 (0.413)***	− 20.07 (0.544)***
Formal worker	− 14.67 (0.0931)***	− 15.65 (0.295)***		− 7.76 (0.832)***
Informal worker	− 11.86 (0.0735)***	− 14.35 (0.225)***		− 4.11 (0.749)***
Worker			− 0.54 (0.461)	
Age	1.51 (0.0128)***	1.75 (0.396)***	1.49 (0.0823)***	2.34 (0.111)***
Age squared	− 0.02 (0.000165)***	− 0.02 (0.000517)***	− 0.02 (0.000108)***	− 0.02 (0.00139)***
Schooling	− 0.05 (0.00759)***	− 0.08 (0.0237)***	− 0.51 (0.0499)***	− 0.04 (0.0756)
Quintile 2	− 0.01 (0.0883)***	2.74 (0.310)***	1.20 (0.616)*	0.49 (0.790)
Quintile 3	− 0.65 (0.0909)***	3.93 (0.309)***	0.92 (0.612)	0.94 (0.826)
Quintile 4	− 0.78 (0.0946)***	4.05 (0.317)***	0.52 (0.614)	0.64 (0.895)
Quintile 5	− 3.02 (0.106)***	2.10 (0.346)***	− 0.81 (0.636)	− 0.67 (0.995)
Individual share of hh income	− 0.04 (0.000910)***	0.02 (0.00261)***	− 0.06 (0.00632)***	− 0.08 (0.00885)***
Hh head	− 1.98 (0.0781)***	− 4.06 (0.262)***	− 4.15 (0.552)***	0.21 (0.652)
Single parent	− 3.79 (0.107)***	− 2.59 (0.349)***	− 4.06 (0.737)***	0.11 (0.816)
Composite	− 4.19 (0.116)***	− 0.61 (0.757)***	− 1.86 (1.323)	− 2.67 (1.425)*
Extended	− 2.49 (0.0725)***	− 0.81 (0.226)***	− 1.41 (0.442)***	− 2.84 (0.673)***
Other	− 4.46 (0.125)***	− 4.36 (0.408)***	− 4.43 (0.927)***	− 1.24 (0.860)
One extra adult	− 6.08 (0.120)***	− 4.53 (0.446)***	− 7.64 (0.922)***	− 1.65 (0.914)*
More than one extra adult	− 11.65 (0.135)***	− 9.40 (0.489)***	− 15.69 (1.007)***	− 5.48 (1.083)***
Children ages 0–5	10.41 (0.0650)***	8.60 (0.209)***	8.16 (0.401)***	9.56 (0.622)***
Children ages 6–12	1.59 (0.0612)***	2.25 (0.195)***	2.18 (0.385)***	2.80 (0.588)***

(*Continued*).

Table 5 Continued.

	Colombia	*Mexico*	*Peru*	*Uruguay*
Boys ages 13–18	− 0.82	− 0.85	− 0.94	− 1.26
	(0.0725)***	(0.226)***	(0.453)**	(0.701)*
Girls ages 13–18	− 4.39	− 2.81	− 3.82	− 2.79
	(0.0756)***	(0.228)***	(0.455)***	(0.690)***
Constant	16.86	4.94	24.96	− 8.32
	(0.279)***	(0.877)***	(1.711)***	(2.296)***
Sigma constant	19.12	21.56	17.54	19.04
	(0.0219)***	(0.0684)***	(0.128)***	(0.169)***
Observations	537,673	69,103	10,291	7,138

Sources: Authors' estimates based on time-use surveys from Colombia (DANE 2010), Mexico (INEGI 2009), Uruguay (INE 2007), and Peru (INEI 2010).
Notes: ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels, respectively.

ranging from 20.07 to 23.04 fewer hours per week of unpaid work for men than for women.

We distinguished between formal workers, informal workers, and nonworkers (the latter being the omitted variable, which includes unemployed and nonparticipants). Informal workers are those workers (salaried and independent) who do not contribute to the social security system. This distinction was made in all countries except Peru, where the survey does not allow the identification of informal workers. For this country, the binary variable classifies individuals as workers or nonworkers (omitted). Our results indicate that being a worker is associated with less time devoted to unpaid household work compared to nonworkers, except in Peru where the variable is not statistically significant. In the other three countries, where it is possible to distinguish between formal and informal workers, informal workers tend to dedicate more hours to unpaid work. This is consistent with the idea that some workers may be trapped in – or may decide to work in, depending on the underlying explanation for informality – precarious jobs that have many disadvantages but that at least could allow more flexibility to combine domestic and market responsibilities.

The inclusion of a quadratic structure on age indicates that, in all countries, there is an inverse U-shaped relationship between age and time devoted to unpaid household work. People devote their maximum time to unpaid work when they are middle-aged (between 45 and 49 years old).

Years of schooling are negatively associated with time devoted to unpaid work in Mexico and Peru, although the variable has a positive coefficient in Colombia and is statistically nonsignificant in Uruguay. With respect to household income quintiles, these aggregate regressions, which include

both women and men, show a statistically nonsignificant effect for Peru and Uruguay. In Colombia, a decreasing pattern of unpaid work by income quintiles is detected, whereas income quintile has a positive association with time devoted to unpaid work in Mexico.

The literature has also argued that women's economic dependence on men determines differences in unpaid household time; to explore this, we included a variable reflecting an individual's share of household income. This variable shows a significant and negative effect in all countries, as expected, but the effect is small in magnitude. Being the household head decreases the time devoted to unpaid household work in all countries except in Uruguay, where the relationship is nonsignificant. Examination of household type shows that two-parent households (omitted category) are associated with greater time devoted to unpaid household work than other types of households. Again, the exception is Uruguay, where single-parent households and other households (single adults and couples) do not show significant differences from two-parent households.

The presence of extra adults in the household (apart from respondents) is associated with less time devoted to unpaid household work, and the effect increases with the number of adults, reflecting collaborative behavior in the household. As expected, the presence of children ages 0–5 has a positive and significant association with time devoted to unpaid household work when compared to individuals living with no children. The effect of having children ages 6–12 is still positive and significant, although of smaller magnitude. In contrast, the presence of children ages 13–18 is negatively associated with unpaid household work, reflecting their cooperation with household activities. Interestingly, the coefficient is higher for girls ages 13–18 than for boys, suggesting the intergenerational transmission of traditional gender roles. Again, the magnitudes of the coefficients for the children's variables are strikingly similar across countries.

Given the importance and magnitude of the gender coefficient in the above estimations, we run all regressions for men and women separately in each country. Results are presented in Table 6. Both for women and for men there is a negative association between engaging in paid work (formal or informal) and time devoted to unpaid work. This association is stronger for women than for men, as reflected by the magnitude of the coefficients. In the three countries where the informal condition can be tested, informal women workers dedicate more hours to unpaid work than formal ones. Coefficients for formal and informal male workers are closer to each other. These results suggest that holding more flexible jobs (as reflected by the informal condition) is associated with more time dedicated to unpaid work for women, but the pattern for men is weaker. In Peru, being a worker is not statistically associated with unpaid work when men and women are considered jointly, but separate estimates for women and men indicate that

Table 6 Unpaid household work of women and men (hours per week; Tobit estimates)

	Colombia		*Mexico*		*Peru*		*Uruguay*	
	Women	*Men*	*Women*	*Men*	*Women*	*Men*	*Women*	*Men*
Formal worker	− 17.68 (0.132)***	− 7.18 (0.115)***	− 18.95 (0.442)***	− 8.00 (0.348)***			− 8.39 (1.220)***	− 4.42 (0.961)***
Informal worker	− 11.85 (0.0977)***	− 6.72 (0.0992)***	− 13.91 (0.311)***	− 8.86 (0.292)***			− 3.41 (1.072)***	− 2.11 (0.889)**
Worker					− 4.31 (0.670)***	5.59 (0.513)***		
Age	2.04 (0.0177)***	0.36 (0.0163)***	2.26 (0.0560)***	0.42 (0.0500)***	2.62 (0.132)***	− 0.37 (0.0849)***	2.88 (0.164)***	0.79 (0.129)***
Age squared	− 0.02 (0.000231)***	0.00 (0.000206)***	− 0.02 (0.000739)***	0.00 (0.000631)***	− 0.03 (0.00176)***	0.00 (0.00107)***	− 0.03 (0.00208)***	− 0.01 (0.00157)***
Schooling	0.02 (0.0108)*	0.21 (0.00891)***	− 0.17 (0.0349)***	0.16 (0.0269)***	− 0.71 (0.0793)***	0.06 (0.0496)	0.10 (0.114)	0.13 (0.0826)
Quintile 2	0.78 (0.122)***	− 1.28 (0.108)***	2.09 (0.441)***	2.99 (0.368)***	0.45 (0.992)	2.14 (0.595)***	− 0.42 (1.167)	0.48 (0.875)
Quintile 3	− 0.10 (0.125)	− 1.50 (0.111)***	2.24 (0.440)***	4.99 (0.364)***	− 1.48 (0.988)	2.51 (0.589)***	− 1.25 (1.228)	2.43 (0.906)***
Quintile 4	− 1.05 (0.131)***	− 0.76 (0.114)***	2.05 (0.454)***	5.21 (0.371)***	− 1.50 (0.999)	1.86 (0.588)***	− 1.74 (1.337)	1.78 (0.976)*
Quintile 5	− 4.50 (0.148)***	− 1.61 (0.128)***	− 1.34 (0.498)***	4.72 (0.402)***	− 4.63 (1.043)***	1.69 (0.608)***	− 4.18 (1.491)***	1.87 (1.079)*

(*Continued*).

Table 6 Continued.

	Colombia		*Mexico*		*Peru*		*Uruguay*	
	Women	*Men*	*Women*	*Men*	*Women*	*Men*	*Women*	*Men*
Individual share of hh income	− 0.03 (0.00117)***	− 0.03 (0.00126)***	− 0.01 (0.00349)***	− 0.03 (0.00345)***	− 0.11 (0.0107)***	0.01 (0.00596)	− 0.08 (0.0125)***	− 0.05 (0.0107)***
Hh head	− 1.18 (0.123)***	2.74 (0.102)***	− 2.63 (0.473)***	2.23 (0.335)***	− 0.17 (1.076)	2.95 (0.574)***	2.56 (1.099)*	5.65 (0.787)***
Single parent	− 5.26 (0.153)***	0.41 (0.139)***	− 3.44 (0.522)***	0.56 (0.436)	− 6.31 (1.233)***	1.65 (0.748)**	− 3.18 (1.270)**	4.27 (0.940)***
Composite	− 6.65 (0.163)***	− 0.54 (0.138)***	− 5.23 (1.145)***	2.53 (0.828)***	− 6.95 (2.144)***	1.73 (1.260)	− 7.61 (2.046)***	6.07 (1.647)***
Extended	− 3.55 (0.103)***	− 0.74 (0.0894)***	− 1.27 (0.327)***	0.51 (0.270)*	− 2.23 (0.735)***	0.32 (0.428)	− 5.29 (0.994)***	0.55 (0.767)
Other	− 7.78 (0.175)***	− 2.68 (0.152)***	− 7.15 (0.582)***	− 1.78 (0.480)***	− 7.51 (1.541)***	− 2.34 (0.889)***	− 4.52 (1.287)***	0.38 (0.940)
One extra adult	− 2.62 (0.171)***	− 6.22 (0.149)***	− 0.89 (0.650)	− 4.81 (0.543)***	− 5.41 (1.524)***	− 5.23 (0.921)***	2.89 (1.413)**	− 4.24 (1.014)***
More than one extra adult	− 8.18 (0.188)***	− 10.08 (0.170)***	− 6.31 (0.701)***	− 7.35 (0.599)***	− 15.62 (1.631)***	− 7.47 (1.014)***	− 1.54 (1.642)	− 6.87 (1.195)***

(*Continued*).

Table 6 Continued.

	Colombia		*Mexico*		*Peru*		*Uruguay*	
	Women	*Men*	*Women*	*Men*	*Women*	*Men*	*Women*	*Men*
Children ages 0–5	14.96	4.09	12.10	3.06	13.07	2.18	14.44	2.73
	(0.0899)***	(0.0798)***	(0.298)***	(0.248)***	(0.649)***	(0.387)***	(0.914)***	(0.699)***
Children ages 6–12	2.91	0.15	3.38	0.66	2.75	1.99	5.55	− 0.69
	(0.0847)***	(0.0741)**	(0.279)***	(0.227)***	(0.623)***	(0.370)***	(0.872)***	(0.649)
Boys ages 13–18	− 1.55	− 1.08	− 0.87	− 1.53	− 2.19	− 0.10	− 0.89	− 2.64
	(0.105)***	(0.0863)***	(0.339)***	(0.256)***	(0.759)***	(0.431)	(1.098)	(0.743)***
Girls ages 13–18	− 4.43	− 2.23	− 2.78	− 1.32	− 4.74	− 0.69	− 2.06	− 1.71
	(0.101)***	(0.0973)***	(0.319)***	(0.277)***	(0.716)***	(0.456)	(0.993)**	(0.801)**
Constant	1.51	9.24	− 7.87	2.24	9.26	15.42	− 23.89	− 2.27
	(0.387)***	(0.344)***	(1.264)***	(1.043)**	(2.765)***	(1.697)***	(3.413)***	(2.543)
Sigma constant	20.26	14.97	23.15	16.62	20.27	11.70	21.00	13.92
	(0.0281)***	(0.0309)***	(0.0916)***	(0.0891)***	(0.206)***	(0.122)***	(0.247)***	(0.190)***
Observations	290,203	247,470	36,130	32,973	5,169	5,122	3,787	3,351

Sources: Authors' estimates based on time-use surveys from Colombia (DANE 2010), Mexico (INEGI 2009), Uruguay (INE 2007), and Peru (INEI 2010).
Notes: ***, **, and * denote statistical significance at the 1, 5, and 10 percent levels, respectively.

for the former, a negative association holds: women workers devote less time to unpaid work than women nonworkers. In the case of Peruvian men, however, the association is positive.

Coefficients for age and its quadratic intention display an inverted U pattern for both genders in all countries, with the exception of men in Peru.[14] The comparison of these coefficients by gender indicates that the amount of time spent on unpaid work is much more responsive to the age cycle for women than for men. In the case of years of schooling, the pattern is less clear: it is associated with less time spent on unpaid work for women in Mexico and Peru, but not statistically significant for women in Colombia and Uruguay. For men, more education is related to more time devoted to unpaid work in Colombia and Mexico and is not statistically significant in Peru and Uruguay. The sign and magnitude of significant coefficients on schooling indicate that not only are the associations with unpaid work opposite for men and women, but women are also more responsive to variations in schooling.

For differences across income quintiles, there is no uniform pattern among countries or even between men and women within a country. A decreasing pattern holds, in general terms, for men and women in Colombia. In Mexico, only women in the fifth quintile devote less time to unpaid work than those in the first one, whereas the coefficients are positive for intermediate quintiles. For women in Peru and Uruguay, only the coefficient differentiating the fifth quintile is significant, indicating less time devoted to unpaid work when compared to women in the first quintile. Men tend to devote more time to unpaid work in all quintiles when compared to the first quintile in Peru, whereas for Uruguayan men, only the coefficient for the third quintile is significant, and is also positive. The descriptive analysis of time spent on unpaid work by income quintile does show a significant decrease in unpaid work as income increases for women, and almost no variation by income quintiles for men. Our econometric results suggest that this clear pattern in descriptive analysis is the consequence of an important compositional effect, as the pattern is less clear once personal and household controls are considered. Time devoted to unpaid work decreases with an individual's share of household income, for both genders and in all countries (with the exception of men in Peru, where this variable is not significant).

When men are household heads, they devote more time to unpaid household work, whereas women's position in the household tends to be statistically nonsignificant in Peru and Uruguay, and has a negative coefficient in Colombia and Mexico. With respect to household type, again men's behavior is less responsive than that of women, as reflected by the magnitude of the coefficients. In all countries, women dedicate more hours to unpaid work when they live in two-parent households (omitted category).

The presence of one or more extra adults in the household exerts a higher (negative) influence on time devoted to unpaid work by men, while the variable reflecting one extra adult in the household actually presents a positive effect for women in Uruguay and is not statistically significant in Mexico.

With respect to children in the household, the pattern is very clear. Their presence is associated with considerably more time spent on unpaid work for women than for men: the coefficient of the variable that reflects the presence of children aged 0–5 is between four and six times higher for women than for men. Something similar happens with the coefficients reflecting the presence of children aged 6–12, which even lose significance for men in Uruguay and, to a lesser extent, in Colombia. In contrast, the presence of children aged 13–18 seems to alleviate the burden of unpaid work, especially when those children are girls.

Given the differences in hours dedicated to unpaid work by men and women, a natural next step consists of trying to explain this gap. This may be done through the application of traditional decomposition methods to the Tobit model, as proposed by Bauer and Sinning (2010; see the methodology section). The results show that, for all countries, the part of the gap attributable to differences in observable characteristics is minor. Meanwhile, the unexplained part ranges from 62 percent in Mexico to 70 percent in Colombia, clearly showing that the unequal distribution of hours of work between men and women is not the product of their different observable characteristics, but the result of more complex underlying mechanisms.

CONCLUDING REMARKS

Understanding the factors that explain the allocation of unpaid work has become a key issue for policymakers and researchers in Latin America, especially after the massive incorporation of women into the labor market that has taken place in the last twenty years. Several countries in the region are expanding childcare services, implementing paternal leaves, and even designing national care systems with the specific goal of modifying the unequal distribution of paid and unpaid work between men and women. Despite these advances, statistical evidence on the main drivers that shape people's decisions regarding unpaid work is still very weak. Also, Latin American countries differ in many aspects and the gender gap in the distribution of unpaid work is not an exception in this heterogeneity: in Colombia women devote 4.3 more hours to unpaid work than men and in Mexico this difference is 3.7 hours, while in Uruguay and Peru the gap is smaller (3 hours and 2.7 hours, respectively). However, systematic attempts to explain differences in the allocation of unpaid work between men and women are scarce, and almost no comparative studies including

a variety of countries from the region have been carried out in the subject.

In this paper, we aim to fill this gap by providing comparative evidence on the factors that explain allocation of unpaid work in Colombia, Mexico, Peru, and Uruguay. Our analysis of harmonized microdata from time-use surveys contributes to the existing literature by testing the extent to which individual-level variables are useful to explain allocation of unpaid work within each country. Our results show that in these four countries the individual-level variables that are most related to the allocation of unpaid work are very similar to those the literature identifies for the developed world. In all four countries, gender, age, income, and the presence of children in the household are significantly correlated with time devoted to unpaid work. Also, in all four countries unpaid work is much more responsive to personal and household characteristics in the case of women. In particular, holding more flexible jobs (as reflected by the informal condition) is associated with more time dedicated to unpaid work for women, but the pattern for men is weaker. In the same vein, the coefficient of the variable that reflects the presence of children ages 0–5 is between four and six times higher for women than for men. Additionally, the presence of children ages 13–18 seems to alleviate the burden of unpaid work, especially when those children are girls. Finally, a traditional decomposition exercise indicates that the unequal distribution of hours of work between men and women is not the product of their different observable characteristics, but the result of more complex underlying and unexplained mechanisms.

In sum, our findings show that the differences these four countries present in terms of gender gaps in the allocation of unpaid work go beyond differences in configurations of individual-level variables. This conclusion is also consistent with what the literature has also pointed out: structural, institutional, and cultural factors are key for explaining men's and women's decisions on how to distribute their time between paid and unpaid work in Latin America. Also, although further explorations should be carried out to empirically test this relationship, our analysis confirms that more attention should be put on the role that specific policies – such as leaves, care policies, and labor market regulations – play in shaping the allocation of paid and unpaid work in these four countries. Uruguay and Colombia, in particular, may illustrate this point. Although, again, the evidence explored in this paper does not allow us to be conclusive, it is likely that in Uruguay, high women's labor participation rates, the gender equality legislation regarding abortion, domestic work, and work leave, and, more recently, the development of the National Care System are all part of one single casual story. By contrast, Colombia's strong male-breadwinner model, relatively low women's labor participation rates, and very traditional gender values probably explain its higher gender gap in unpaid work.

How these differences are shaped by their different institutional and cultural configurations remains, however, an open question.

Future research is needed to answer this question. First, deep comparative analysis should be carried out in order to test the extent to which different types of country-level variables interplay with individual-level variables in explaining gender gaps in unpaid work. In this sense, considering more countries and building a multilevel regression model that integrates variables at several levels of a hierarchy could shed light on the causal configurations that are shaping the dependent variable. Second, systematic analysis and evaluation of the impacts of childcare facilities and parental leaves on time devoted to unpaid work by men and women would help to elucidate the links between policies and behaviors. Finally, it is necessary to examine differences in time allocated to unpaid work along the income distribution, considering both gender gaps along the income strata and vertical and horizontal inequalities within each gender.

Verónica Amarante
Economic Commission for Latin America (ECLAC) – Montevideo Office
Montevideo, Montevideo, Uruguay
e-mail: vamarante@cepal.org

Cecilia Rossel
Catholic University of Uruguay – Department of Social and Political Sciences
8 de octubre 2738 Piso 4. Oficina 422, Montevideo, Montevideo 11200, Uruguay
e-mail: cecilia.rossel@ucu.edu.uy

NOTES ON CONTRIBUTORS

Verónica Amarante is Director of the Montevideo Office of the Economic Commission for Latin American and the Caribbean (ECLAC, United Nations). She is also Professor in the Department of Economics at Universidad de la República in Uruguay. She holds a PhD in Economics from Sussex University. Her research focuses on poverty, inequality, labor markets, and social policies.

Cecilia Rossel is Assistant Professor in the Political and Social Sciences Department at Catholic University in Uruguay. She is a sociologist and holds a PhD in government and public administration (Instituto Universitario Ortega y Gasset – Universidad Complutense de Madrid). Her research focuses on the political economy of social policy, and welfare regimes and inequality in Latin America.

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NOTES

[1] This statistic is based on a simple average of seventeen countries, based on data from CEPALSTAT (ECLAC 2014).

[2] This criterion for classifying activities as work and nonwork is not free from debate as, for example, it cannot be straightforwardly applied with the same results in different contexts and cultures (Wood 1997).

[3] The 19th International Conference of Labour Statisticians, held in 2013, considers own-use provision of services and volunteer work in households producing services as activities beyond the 2008 SNA production boundary but inside the general production boundary. This provision of services covers: (i) household accounting and management, purchasing, or transporting goods; (ii) preparing or serving meals, household waste disposal, and recycling; (iii) cleaning, decorating, and maintaining one's own dwelling or premises, durables, and other goods, and gardening; (iv) childcare and instruction, transporting and caring for elderly, dependent, or other household members, and domestic animals or pets.

[4] Unpaid work also includes activities related to helping other households or the community in a broader sense, as well as some specific activities related to procuring inputs and producing for own use (Antonopoulos 2009).

[5] The other way to collect data on time use consists of the diary approach: respondents are asked to report their activities for a 24-hour period. This approach is mainly used in European countries. The surveys conducted in Argentina (2005, 2013) also use the diary approach (Government of the City of Buenos Aires 2007; Instituto Nacional de Estadística y Censos [INDEC] 2013).

[6] For a review on the main features and trade-offs in Latin American time-use surveys, see Valeria Esquivel et al. (2008).

[7] International efforts for uniform classification of activities in time-use surveys include the International Classification of Activities for Time Use Statistics (ICATUS) and Clasificación de Actividades de Uso del Tiempo para América Latina (CAUTAL). Other examples of international efforts of data harmonization are the recommendations for Harmonized European Time Use Surveys (HETUS), developed by Eurostat; and the Multinational Time Use Study (MTUS), based currently at Oxford University.

[8] All surveys are available online at the countries' respective national statistics offices' websites. For Colombia, see http://www.dane.gov.co/; for Mexico, see http://www.inegi.org.mx/; for Peru, see https://www.inei.gob.pe/; and for Uruguay, see http://www.ine.gub.uy/.

[9] On theoretical grounds, the surveys used in this article do not allow for simultaneity of tasks, although three of the databases include a small percentage of individuals with total hours of work higher than 135 (0.3 percent in Colombia and Mexico, and 2.4 percent in Uruguay).

[10] If zeros in time-use data arise from a mismatch between the reference period of the data and the period of interest, then a Tobit model may not be adequate. For methodological discussions on this issue in relation to time-diary data, see Jay Stewart (2009) and Gigi Foster and Charlene M. Kalenkoski (2013). In previous versions of

this paper we also reported OLS results, which were very similar to Tobit results and led to the same conclusions.

[11] The Gender Values Index is based on the following questions from the World Values Survey, which asks the interviewee to declare if she or he agrees or disagrees with each phrase: (1) "When jobs are scarce, men should have more right to a job than women"; (2) "If a woman earns more money than her husband, it's almost certain to cause problems"; (3) "Having a job is the best way for a woman to be an independent person"; (4) "When a mother works for pay, the children suffer"; (5) "On the whole, men make better political leaders than women do"; (6) "A university education is more important for a boy than for a girl"; (7) "On the whole, men make better business executives than women do"; and (8) "Being a housewife is just as fulfilling as working for pay."

[12] Comparisons should be done very cautiously, given the differences regarding the collection of data on time use.

[13] The highest gender gap in total work hours corresponds to Peru, where paid work hours are relatively high for women, and women's labor participation is high. Although market work is high among women in Peru, 17 percent of women workers are unpaid family workers (ECLAC 2014). Strictly speaking, all market work (including unpaid work) is considered paid work in this article (following standards for the construction of labor market indicators).

[14] As Peruvian men do not show the inverted U pattern, data for them are not included in the Supplemental Online Appendix.

SUPPLEMENTAL DATA

Supplemental data for this article can be accessed at doi:10.1080/13545701.2017.1344776. The underlying research materials for this article can be accessed at https://sites.google.com/site/mceciliarossel/publications/journals.

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