



**GENDER INEQUALITY AT HOME  
WHEN MOTHERS WORK.  
THE CASE OF ITALY**

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## GENDER INEQUALITY AT HOME WHEN MOTHERS WORK. THE CASE OF ITALY

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### ABSTRACT

*This article focuses on the gender gap in housework and childcare in Italian couples, one of the widest in Europe. Italian women still carry out three-quarters of domestic work and two-thirds of childcare. Following a considerable amount of literature, we focus on three possible theoretical explanations for the persistence of the gendered division of labor: time availability, relative resources, and conformity with traditional gender ideology. Time Use data from the 2008/09 Survey edition have been used: we considered couples, married or in consensual unions, with at least one child under 14 years of age and with the mother employed. The amount of time spent by men and women on, respectively, domestic tasks and on caring for children has been modeled as a function of several couples and household characteristics. Similarly, we analyzed the women's share of total time for housework and childcare, respectively, as dependent variables. In order to take into account the truncated nature of the dependent variables a Tobit model has been used. Results show that the family division of work is heavily biased towards women, and it is only when they take on the role of breadwinner that the amount of time their unemployed male partners spend on domestic tasks increases. Generally, when the financial resources of women are greater than those of men, they reduce the time spent on housework and gender asymmetry decreases. With regard to childcare, the gender gap is significantly reduced only when the man is unemployed and in territorial contexts where the gender system and ideology are less traditional.*

**Classification JEL:** D13, C34, J7

**Keywords:** Time use, Housework, Childcare, Gender, Tobit model.

### 1. INTRODUCTION

The growing involvement of women in the labor market has not been followed by a significant increase in the participation of men in family responsibilities. In Europe

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employed women dedicate about 3 hours a day to domestic work, one hour more than the time lavished by employed men on the same activities (Eurostat 2006). Scholars from different disciplines are exploiting these differences in order to identify their determinants (see reviews by Coltrane 2000, Bianchi and Milkie 2010, Sullivan 2011 and Lachance-Grzela and Bouchard 2010), as well as the policies to be developed in order to reduce gender inequalities.

Some authors highlight the importance of distinguishing two main typologies amongst the different family work activities, i.e. housework and childcare (Lachance-Grzela and Bouchard 2010). In Western countries, the main reduction in the gender gap has been achieved in childcare, while the increase in the sharing of household tasks between male and female continues at a slower pace (Gutierrez-Domenech 2010, Sandberg and Hofferth 2001 and Yeung et al. 2001). It has also been noted that the commitment to parental care has increased and it is growing among employed women; on the contrary, among working women and double-earning couples significant reductions of time devoted to domestic work, leisure and self-care have been observed (Gauthier et al. 2004; Kan et al. 2011).

The growing attention that scholars are devoting to the topic of gender imbalances in family work and childcare is motivated by multiple interests. First of all, the level of participation and collaboration between partners in a home is a useful indicator of the level of gender equality in Western societies. Related to that, the gender gap in family management has an impact on fertility behaviors and intentions. Namely, it has been shown that a higher level of gender equality in couples' relationships may increase fertility (McDonald 2000). Thus, reducing the gender gap should be considered among the strategic policy goals in those countries with a very low level of fertility (Oláh 2011). A second reason for the interest of scholars in dealing with the time parents allocate to their children is the role that it plays in the well-being of the latter. Developmental psychologists and sociologists have argued that a greater paternal involvement is beneficial for children, while some economists have found a positive relationship between parental time and economic success in adult life (Case et al. 2005 and Garces et al. 2002).

Finally, given the current worsening economic situation, it is important to assess the possible impact that the crisis could have on individual time allocation (Nielson and Stanfors 2012). Some authors (Walby 2009; Aguiar et al. 2011) have argued that a forced change in the mode and timing of labor market participation – both for men and women - leads to a reallocation of time toward a deeper involvement of male partners in family activities.

The persistent gender gap in domestic work is generalized in the Western world. However, context plays an important role in determining time allocation between partners. It has been shown that gender division of labor varies depending on different welfare regimes and their sensitivity to equality issues, on the regulation of the labor market and on social norms. Several comparative studies highlight that a lower gender equity is registered in the Mediterranean countries compared to other Western countries (Knudsen and Wærness 2008 and Kan et al. 2011). Among them, Italy stands out because of its high level of gender inequalities. In a recent study including France, Italy, Sweden and the United States (Anxo et al. 2011) it was confirmed that



the differences between men and women - particularly in the presence of young children - are greater in Italy than elsewhere, while in Northern Europe these differences are less marked.

In this paper, we analyze gender gaps in time allocation between partners to housework and childcare in a sample of Italian heterosexual couples - married or in consensual unions – with at least one child under 14 years of age and with the woman working in the labor market. The focus is on couples that are potentially far removed from the traditional model (male breadwinner-female caregiver): we aim at investigating the bargaining mechanisms – if any – and their influence on parents' inequalities and on women's "double burden". The selected sample consists of three types of couples grouped on the basis of the partners' employment status: dual earner households, male breadwinner households and female breadwinner households. Other studies conducted on the Italian data-set have excluded the third type of family because they are too few (Mancini & Pasqua, 2012). We consider them in order to verify whether a greater equality is achieved in the household when fathers do not work. A study on the French case found that in case of unemployed fathers family labor still remains on female shoulders and exchanges between partners remain asymmetric (Pailhé and Solaz 2004, 2008).

As described in more detail further on, the leading theoretical perspective of this work is threefold: we investigate the availability of time, the relative amount of resources owned by the partners in terms of income, age and education, and the social/cultural norms regarding gender, and study them as the main determinants of the allocation of family time between men and women. Furthermore, we highlight the behavior of couples in which the man is not employed, or works on a part-time basis, in order to understand whether this condition – which is widespread in the present times of economic crisis - encourages a higher level of gender equality in family work.

The paper is organized as follows: In Section 2 the theoretical framework is presented and the work hypotheses; in Section 3 we describe the data and the statistical method used for the multivariate analysis; results are discussed in Section 4; finally, conclusions as well as implications for the policies are addressed in Section 5.

## 2. THEORETICAL PERSPECTIVES ON THE DIVISION OF UNPAID WORK

The research on the division of family work and on the reasons why women carry out more housework than men follows two main different theoretical perspectives. The first emphasises the cultural and social aspects, according to which the specialization of family roles is explained by the characteristics of the gender system; the latter, developed in the flow of economic theory, is based on the principle of the utilitarianism/selfishness of the players involved in the bargaining process and on the substantial gender neutrality of the choices.

The former perspective emphasizes social norms that assign women the role of "natural" protagonists of the family. In this context, one of the most important theoretical contributions was provided by Goffman (1977) according to whom gender, in close relation with age, plays a much more important role than other variables - such



as class or any other social divisions - in defining an individual's identity and how/where it should be exhibited. It follows that men who do not participate in family activities are more likely to justify themselves with reference to their own gender, similarly to what happens to women when they limit their interventions on technical, financial and political issues.

Partially overcoming the approach of Goffman, West and Zimmermann pointed out that gender is not simply shown but "done" (West and Zimmermann 1987) and "re-done" (West and Zimmermann 2009) continuously. In particular, according to these Authors, family labour is a resource through which women and men show and recreate gender differences: taking care of the home acquires a symbolic value, as it allows men or women to prove themselves proficient and in line with social expectations.

Whenever we speak of production (*doing* gender) or exhibition (gender *display*), the common element is the social construction of gender, according to which men and women conform to the roles learned in childhood and later in life, developing preferences and reproducing behaviours consistent with their gender.

The second main theoretical perspective focuses on the rational and efficient allocation of resources in order to optimize output and utility, i.e. family members who are likely to be more efficient in workplace activities would tend to spend less time than other members of the family on unpaid work in the home. Following the relevant economic theories and oriented by the rational choice models, the study of time allocation is based on two main analytical approaches: *time availability* and *relative resources*. According to the neoclassical economic theory (Becker 1981), men and women specialize in order to maximize the family's well-being and - in the case of the gender pay gap - they have an economic advantage in choosing which of the two partners has to be engaged in paid or in domestic work. The time availability approach predicts that individuals allocate more time to household tasks to the extent that their time is not required in other activities (i.e. the labour market).

The proponents of the relative resources approach consider the division of household work as the result of a bargaining process between the two partners. It is based upon the idea that holding one's own personal resources, in terms of income and education, grants a certain degree of decision-making power (Blood and Wolfe 1960, Hiller 1984 and Mannino and Deutsch 2007). Age is the third resource considered in the analysis. Rothstein (1999) claims that the age difference between wife and husband is exogenously related to the allocation of both market and household work: the older partners have had more time to finish their education and establish themselves on the labour market, hence they have an advantage in any bargaining.

Therefore, the greater the resources held by one partner compared to the other, the higher is the "power exchange" and the easier it should be to bargain his/her way out of family work and to devote less time and responsibility to unpaid work (Knudsen and Wærness 2008).

An important underlying assumption of both the above perspectives is that most people consider family work so onerous and tedious that it has to be avoided. This may not be the case of childcare, because of the symbolic value assigned to it and the greater emotional investment in the time parents devote to their children. Some studies found that housework more than childcare is likely to be affected by females' relative



income (Deutsch et al. 1993 and Ishii-Kunt and Coltrane 1992). Other researches indicated that childcare may involve a joint agreement among parents and that fathers spend more time on childcare than on housework tasks; fathers and mothers rarely substitute the time devoted to children between each other (Pahilé and Solaz 2008). Thus, as highlighted by some authors (Mannino and Deutsch 2007 and Bloemen et al. 2008), in order to better understand the division of unpaid work and verify their distinct nature in this study the analyses on housework and childcare have to be taken separately.

Most studies give some support to either the cultural or the economic theoretical perspectives, while they are rarely simultaneously included in a single analysis. This is despite the arguments by prominent scholars outlining that, in order to better understand the complex mechanisms underlying the gender division of labour at home, much more research is needed in order to take into account the effects of personal resources, gender ideology, interpersonal relations and economic factors and their interlinks (Coltrane 2000, Carriero 2009, Bianchi and Milkie 2010 and Sullivan 2011). However, the lack of surveys containing information on time use, personnel and couple characteristics and resources, and other information in the same data set - namely those related to gender ideology - makes the study of these phenomena particularly difficult.

At present, the Time Use Survey (as better described in the following Section 3) is the most complete data source for this field of study. Moreover, the latest edition of the Italian Time Use Survey (2008/09) offers an unexplored opportunity for analysis, thanks to the introduction of the item on the partners' income, thus allowing us to consider the gender gap in financial resources, alongside those in age and in education. However, as we discuss further at the end of the paper, time use surveys are completely lacking in questions about beliefs and preferences of men and women, which we would need in order to trace the ideological and cultural processes underlying time allocation behaviors<sup>1</sup>.

The aim of this contribution is to test the above-mentioned approaches in the Italian case. As suggested by many Authors, relative resources, time availability and gender ideology all prove to be important predictors of the gender gap in unpaid labour (Lachance-Grzela and Bouchard 2010 and Dotti Sani 2012). Thus, the novelty of our approach is that we attempt to simultaneously test these three different perspectives to explain family time allocation within Italian couples.

Our research hypotheses can be summarized as follows:

H1 –Women and men contribute more to housework and childcare when her/his work is less demanding in terms of time (they are part-timers or employees); conversely, they participate less when her/his job is more demanding, i.e. they are full-timers and self-employed (*time availability hypothesis*).

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<sup>1</sup>As we illustrate in the following Section 3, the standard geographical categorization of Italian regions among North, Centre and South and urban dimensions can be efficiently used as a proxy of the persistent cultural and normative differences.



H2 – In couples in which women have an advantage compared to men (in terms of age and economic and educational resources), the result of a bargaining process between the partners leads to higher male participation in housework activities and less commitment amongst female partners (*relative resources hypothesis*).

H3 - The gender gap in the amount of time allocated to housework and childcare narrows among partners living in a context where the gender system is less traditional (*cultural hypothesis*).

The different hypotheses will be tested separately on the time spent on housework and that dedicated to children. We expect that reductions in the gender gap for less traditional couples are higher for childcare than for other housework activities.

### 3. DATA AND METHODS

In this study, we analyze data collected by using the Italian Time Use Survey conducted by ISTAT (National Institute of Statistics) between the years 2008/2009 over a sample of 18,250 households and 44,606 individuals.

Time Use Surveys is an extremely detailed source of information on daily activities, providing a unique tool to measure the time devoted to different activities very precisely. Daily time diary surveys collect precious information on time spent in non-market activities. The data set contains a very rich corpus of information on individuals and households' background and socio-economic situation.

We restricted the sample to couples with working women and at least one resident child younger than 14 and where both partners filled in the diary. The resulting sample size includes 3,704 individuals and 1,852 couples.

The Italian survey collects information on the characteristics of households and individuals (age, household type, employment status, working hours, number of children and so on) through direct interviews. Then, each respondent filled out a 24-h diary, for a particular day suggested by the interviewer, in which they recorded their activities, indicating the time spent on each activity by 10-min time periods. Although the investigator gave the respondents the possibility of distinguishing between main and secondary activities carried out during the day, this contribution only makes reference to the first type of activity, thus omitting to consider the time that, although dedicated to family care, was spent alongside other activities considered by the respondents themselves to be more important than the care itself.

The ISTAT survey classifies the activities performed by family members in 10 main categories. The information considered here is included in the so-called "family work" and refer to:

- Housework, which includes cooking, dishwashing, laundry, cleaning and maintenance within the house, gardening and pet care, repairs and other maintenance outside the home, purchasing and household management;
- Childcare, which comprises physical care and supervision, teaching, reading to and playing with daughters and sons aged less than 14, living in the household with both the parents.





In this paper, we are interested in analyzing the gender gap in time allocation comparing the two main family work activities. Thus, we do not enter into the detail of the specific tasks, though we are aware of the fact that they are characterized by quite an evident gender specialization, as in the case of repairs to and maintenance of the house (activities usually performed by men) or vice versa the laundry (which is primarily carried out by women). In addition concerning childcare, research finds that fathers are mainly involved in interactive care (i.e. talking, education and playing), while mothers devote more time to physical care (feeding, dressing, bathing children and changing nappies) (Alonso 2004, Bruzzese and Romano 2006, Canal 2012 and Craig 2006). For the same reason we do not distinguish between week or weekend days, although we are aware that many empirical results show that the gender division of family work is somewhat less asymmetric if the reference day is Saturday or Sunday; indeed, the weekends offer more opportunities for sharing care - mostly childcare - than does the working week (Yeung et al. 2001); and this holds even for Italy (Craig and Mullan 2011) .

### *3.1 Measuring the gender gap*

The main purpose of this paper is to highlight the gender gaps in terms of time spent on housework and childcare by Italian heterosexual couples in which the woman is employed and therefore cannot or is unwilling to deal with home full time. The comparison between the two partners is achieved both by considering men and women separately and by building an asymmetry index based on the ratio female/ (female+male) amount of time devoted to, respectively, selected housework and childcare activities. In the first case, we model the allocation of time for men and women and estimate the effects of selected predictors on the amount of time that each of the two partners dedicated to family activities. In the second case, we want to understand the sharing of tasks between the partners and which factors influence this relationship, regardless of whether this is due to the increase in time that the man devotes to caring for children or to housework or to a decrease in that of the woman. According to Lachance-Grzela and Bouchard (2010), using both the approaches would lead to a more complete understanding of the gender division of household labour.

As anticipated, the analyses are distinguished by the type of activity: the first set of models refers to the time devoted to household tasks, the second to the care that parents devote to children of less than 14 years.

### *3.2 Estimating the model*

We first model the time devoted by men and women to the two main activities of family work separately as a function of several explanatory variables. Regression models are not appropriate in this context since the amount of time devoted to housework is equal to zero for 25.2% of the men and 2.1% of the women, and that for childcare is equal to zero for 41.9% of men and 20.9% of the women. This excess weight of extreme values causes biases if the usual linear regression models are used (Verbeek





2012) A Tobit model avoids this problem by accounting for the truncated nature of the response variable. The model supposes there is a latent variable that depends linearly on the explanatory variables just as in a linear model. The observed variable is defined to be equal to the latent variable whenever it is above zero and to be zero otherwise.

Let  $y_i$  be the observed variable and  $z_i$  the latent variable defined as follows:

$$y_i = \begin{cases} z_i, & \text{if } z_i > 0 \\ 0 & z_i \leq 0 \end{cases} \quad (1)$$

and the latent variable is modeled as

$$z_i = x_i \beta + \epsilon_i \quad (2)$$

where  $x_i$  denotes the vector of the explanatory variables and the random term  $\epsilon_i$  follows a Normal distribution, which is  $\epsilon_i \sim N(0, \sigma^2)$

The parameters of the model have been estimated using the maximum likelihood method and the significance of the parameters has been evaluated according to a significance level  $\alpha=0.05$ . According to the model estimates, we computed the marginal effect of the explanatory variables on the expected value of the response variable.

The marginal effect on the expected value of  $y_i$  of a change in  $x_{ik}$  is given by

$$\frac{d E[y_i]}{d x_{ik}} = \beta_k \Phi(x_i \beta / \sigma) \quad (3)$$

where  $\Phi$  is the distribution function of the standard normal distribution.

We also estimate a model having the asymmetry index as its response variable: in this case too we used a Tobit model with a double censoring due to the fact that the asymmetry index is limited in the unitary interval with an excess of weight in zero and one.

The models have been estimated using the `censReg` package of the statistical software R (R Core Team 2012).

### 3.3 The variables

The dependent variables in our models are the time spent individually by men and women respectively on housework or childcare. We then built models – separately for the two typologies of household activities - taking the asymmetry index (female time / male time + female time) as the dependent variable.

The explanatory variables include: the couple's assortative features, family characteristics and the local context (see Diagram 1).

Among the variables based on both male/female characteristics, the combination of working patterns (Full-time/Part-time) and the type of employment (employee/self-



employed) is strategic in order to test the time availability hypothesis and to understand whether a higher commitment to paid work both by women and men produces the same effect in terms of reduction of time devoted to family work. We expect that those employed full-time spend less time on family activities compared to part-timers and that women working part-time increase gender imbalance, while, on the contrary, men working part-time produce a higher gender equity in family time. We expect a similar effect according to the type of work, i.e. self-employed vs. employee, since in the latter case, the amount of time dedicated to paid work is relatively less.

**DIAGRAM 1. – Time spent by mothers and fathers on housework and childcare (unweighted means, minutes per day) and sample composition.**

<b>Working schedule</b>	<b>HOUSEWORK</b>		<b>CHILDCARE</b>		<b>% Households (N=1852)</b>
	<i>MOTHERS</i>	<i>FATHERS</i>	<i>MOTHERS</i>	<i>FATHERS</i>	
<i>Same schedule</i>	226.1	86.9	91.7	50.0	0.61
<i>She Full Time/He Part Time</i>	224.8	98.1	71.9	55.2	0.02
<i>She Full Time/ He unemployed</i>	214.5	195.2	40.9	69.3	0.02
<i>She Part Time/He Full Time</i>	254.1	85.3	96.4	54.2	0.34
<i>She Part Time/He unemployed</i>	267.8	195.7	66.1	55.7	0.01
<b>N. children aged &lt;14</b>					
1	232.1	90.9	77.2	45.1	0.61
2	243.6	87.9	110.1	62.2	0.35
3 or more	223.2	105.5	144.2	67.1	0.04
<b>N. of children aged &gt;=14</b>					
0	228.8	86.6	109.4	62.0	0.76
1	251.0	103.2	30.7	21.3	0.18
2	286.9	100.3	38.4	14.9	0.05
3 or more	285.0	113.8	92.5	17.5	0.00
<b>Share of male children</b>					
0.00	229.7	90.3	87.7	44.6	0.37
0.33	185.7	121.3	147.8	56.1	0.01



0.50	249.9	89.5	110.6	66.2	0.18
0.67	230.0	121.0	157.6	86.6	0.02
1.00	236.8	88.9	82.4	51.0	0.42
<b>Other family members</b>					
No	237.1	92.0	91.3	52.8	0.96
Yes	208.7	58.0	95.1	36.1	0.04
<b>Territory</b>					
North	232.9	97.2	96.4	56.3	0.55
Centre	224.1	87.1	96.2	50.0	0.19
South	250.3	78.5	77.8	44.5	0.26
<b>Place of residence</b>					
>50.000 in.	226.1	93.9	97.8	62.5	0.38
others	241.8	88.3	87.6	45.7	0.62
<b>Cont.</b>					
<b>Cont.</b>					
<b>Gender gaps:</b>					
<b>Income</b>					
She earns less	246.4	88.5	96.7	53.3	0.57
Same earnings	217.9	83.9	84.6	47.9	0.32
She earns more	233.7	121.2	83.8	58.1	0.10
<b>Age</b>					
She younger	235.9	91.0	87.8	50.0	0.77
Same age	224.6	93.6	98.4	61.9	0.10
She older	243.4	84.8	108.0	57.2	0.13
<b>Education</b>					
She less educated	233.9	94.0	82.3	46.3	0.17
Same education	237.0	89.4	88.2	51.7	0.50
She more educated	235.1	90.2	101.2	55.5	0.33

The inclusion of the gender gap variables is intended to assess the impact of the relative resources in terms of the advantages/disadvantages of women regarding the power bargaining process within couples. These variables relate to differences between the level of education and income of the partners and express the female advantage, since they have been calculated as the female value minus the male one: the difference in education is the female-male lag of years needed for achieving the



stated qualification; as regards the income gap, the variable refers to three distinct situations in which women contribute to the family income less, approximately equally to, or more than the male partner. Concerning the age gap, it encompasses three distinct situations: the woman older than the man, the woman younger than the man and partners of the same age.

In accordance with the relative resource hypothesis, we expect that a couple's heterogamy in favor of the woman increases her bargaining power, and makes her able to involve her partner in domestic work and parental care to a greater extent.

Among the family composition variables we included the number of children under 14 and their gender (as % of males out of total children less than 14) for a better understanding of the father's participation in the activities of caregiving. Indeed, the preference of fathers for assuming the role of caregiver mainly in the presence of male children has been documented. In this regard, the study by Mammen (2011) is particularly useful as it shows how paternal commitment differs with different gender compositions of the children, decreasing from families in which the children are only males, becoming lower in those where the gender of the children is mixed, and reaching the lowest levels in the presence of only daughters. We also include an indicator of the number of children aged 14 and older: this is to take into account the eventual help that older children give to their parents mainly in the care of younger siblings (Craig and Mullan 2011). Furthermore, the presence of a relative or other non-family members living in the household was included, in order to check if a different family structure (nuclear vs extended family) has any effect on the time spent by each couple's members on housework and childcare.

Finally, in the absence of proper indicators for detecting values and attitudes on gender roles, we have tried to overcome this lack by using some variables as proxy. In the Italian case, it is particularly useful to include variables that refer to the local territorial context. Namely, we take into account the typical North-South gradient in the geographical distribution of social norms – from the modern to the more traditional ones. According to this, since macro-area differences in the representation of gender roles have been documented (EVS 2011), we expect less equity in the distribution of household activities and care within couples living in the South of Italy. In addition, following the distinction of Elster (2007) between moral and social norms, the latter implying a rule conditioned by the closer presence of others, it was decided to insert the population dimension of the place of residence. Thus, we assume that social norms are more effective in small towns than in large ones, inducing agents in the first case to behave in a more traditional way, which is women investing more than men in family work (cultural hypothesis).

#### 4. RESULTS

The results of the Tobit analyses are presented in Tables 1 and 2. Table 1 (models A, B, and C) shows the estimates of the regression coefficients and the marginal effects of the explanatory variables on the expected value of the response variable, that is time spent on housework by women and men respectively (models A and B); model C



show the results for the asymmetry index, that is the share of total housework time borne by the woman. Table 2 (models D, E, and F) refers to the results of the corresponding models on time for childcare. By reading the results we will be able to understand whether the greater or lesser fairness in the share among the partners is mainly due to changes in male or female behavior, or in both.

#### 4.1. Housework

The Tobit model shows how the variation of time dedicated to work outside the home affects women’s daily organization. Women with a part-time job devote more time to the management of the house and this is true especially when their partner has a full-time job. In this case their contribution is higher by about 22 minutes (table 1 mod A) per day compared to couples where both partners have the same working hours (full time or part-time).

A strengthened male collaboration in the family is observed in couples where men are not employed: in this case, fathers increase both their participation and the time devoted to housework. Fathers employed in the labor market with a reduced working hours also tend to increase their domestic commitment, but the level of significance in this case does not reach 5%.

Ultimately, the double female burden is reduced in situations where there is the highest availability of time of the other partner, i.e. when he is unemployed. This occurs both in the cases where the women are occupied full time and - to a lesser extent – when they are employed part-time (see Model C) <sup>2</sup>.

As regards the size of the family, we included different variables in the model in order to understand on one hand, if the presence of more children implies a greater burden in terms of time for housework by their parents; on the other, if the presence of teenagers or young adults is able to contain it.

**TABLE 1. –Tobit regression model on time (in minutes) for housework. Coefficients and marginal effects.**

	Model A - Mothers		Model B - Fathers		Model C - Asymmetry Index	
	<i>Coeff.</i>	<i>Marginal effect</i>	<i>Coeff.</i>	<i>Marginal effect</i>	<i>Coeff.</i>	<i>Marginal effect</i>
Work schedule						
She full-time, he part-time (ref she=he)	-1.38	-1.33	16.07	11.21	-0.03	-0.02

<sup>2</sup>Similar considerations emerge from an analysis –not shown here - of the effects of self-employment vs dependent work positions. We found a minor engagement of self-employed people – both male and female - in housework, but it is once again in the couples where only women work that the effects of reducing the female time are more consistent.



She full-time, he not employed(ref she=he)	-24.81	-23.84	117.97***	82.33	-0.20***	-0.15
She part-time, he full-time (ref she=he)	23.05**	22.15	-6.48	-4.52	0.03	0.02
She part-time, he not employed (ref she=he)	25.68	24.68	108.25***	75.56	-0.14*	-0.10
<b>Family characteristics</b>						
N.children <14 ys.	11.60 .	11.15	10.61 .	7.40	-0.01	-0.01
N. children>=14 ys	28.12***	27.02	12.90*	9.01	0.01	0.005
% male children <14 ys	6.70	6.44	-0.01	-0.01	0.01	0.01
No family member: yes (ref. No)	-33.90*	-32.57	-51.24**	-35.76	0.04	0.03
<b>Territory</b>						
Centre (ref. North)	-5.68	-5.46	-14.42.	-10.06	0.03 .	0.03
South (ref. North)	19.33*	18.58	-35.41***	-24.71	0.08***	0.06
Place of residence: >50000 inh.(ref. other)	-15.47*	-14.87	10.65	7.43	-0.04**	-0.03
<b>Gender gap</b>						
Income she=he (ref. he>she)	-23.10**	-22.20	-3.18	-2.22	-0.02	-0.01
Income: she>he (ref. he>she)	-7.51	-7.22	18.50	12.91	-0.07**	-0.06
Age: she=he (ref. he>she)	-5.84	-5,61	-0.21	-0.14	0.02	0.02
Age: she>he (ref. he>she)	14,94	14.36	-7.74	-5.40	0.04 .	0.03
Education	0.54	0.52	-0.71	-0.49	0.00	0.002
<b>Intercept</b>	208.59***		58.46***		-0.79***	
logSigma	4.89***		4.89***		-1.25***	

Significance level: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.'

Our results show that in both situations – a higher number of children and the presence of older sons/daughters of more than 13 years of age - the fathers and mothers are more involved in terms of time, but the effects are greater for the latter. We thus confirm the results of a recent comparative study, which showed that in Italy the presence of older children does not reduce parental commitment in terms of time (Anxo et al. 2011). Indeed, the additional load - caused by young children as well as by older ones - tends to fall mainly on the shoulders of women. If the experience of the birth of a first child leads to a crystallization of gender roles in the family, later births do not lighten the double burden of working mothers.

Living in a household with non-family members does reduce the time spent on housework by both partners compared to nuclear families, but the result in terms of the



asymmetry index within the enlarged households is still negative for women. This result could depend on the fact that living in extended families, either in the presence of other couples (generally parents or in-laws) or other non-family members, allows men to delegate the housework burden to a greater number of co-resident individuals, while for women this happens to a lesser extent. When women share the house with other relatives (often belonging to the older generation), they can be relieved from some family duties, but this is not enough to reduce the gender asymmetry.

As expected, the territorial context affects the allocation of time for housework. Living in the Central regions does not appear to change female commitment in terms of time devoted to housework compared to women in Northern Italy. The most marked difference is observed between women living in the Centre-North, with women less active in the home, and those in the South, who bear a heavier burden. The opposite situation is found for the male partners, since a significant drop in the involvement of men living both in the Center and the South compared to those living in the North is observed. Thus, the North-South gradient is confirmed, with families in the Northern area becoming more gender equal as opposed to a Southern model where the female disadvantage in households is still marked because of a culture that assigns different roles to men and women and delays the transition towards greater gender equity.

The variable for the size of the municipality of residence also shows the expected effect. Compared to small towns, couples living in larger urban centers tend to have a more equal allocation of time and this is probably due to a reduced commitment of women and greater participation of men. Overall, the cultural hypothesis seems to be confirmed.

In order to verify the hypothesis of relative resources, we included three indicators in the model which measure the differences between partners in terms of income, education, and age. The results show that a reduction of the double burden for women is found in couples where women's income is at least equal to that of men. Indeed, when it is larger, it significantly reduces the asymmetry index.

The difference between partners in terms of level of education does not have any significant effect on the division of time for home care between men and women. Contrary to what was expected, when women are more educated than men the asymmetry does not undergo any significant change. This allows us to state that the growing presence of couples where the woman has a cultural capital higher than her partner is not in itself a guarantee of greater gender equity in the family. Thus, although other studies have confirmed that a reduction of the asymmetry occurs with an increase in individual levels of education, it does not influence the bargaining mechanism between partners, clearly showing the persistence of an incomplete revolution as predicted by Esping-Andersen (2009).

The third (relative) resource considered is that of age, which shows a result against our hypothesis: in couples where women are older than men the distribution of tasks appears to be almost unchanged compared to same-age couples or those where men are older than women. Moreover, the asymmetry index increases in the case where women are older than men, showing the opposite effect than that predicted by the relative resource approach.





One can therefore conclude that, within Italian couples, the bargaining power of women in domestic work is mainly linked to the economic resources owned; contrary to expectations, the educational gap and that of age have practically no effect in lowering the female burden in terms of housework.

#### 4.2. Childcare

Below are the results of the analyses relating to parental time for childcare (Table 2). As before, the models refer to couples who have children under 14, and estimate the effects of the characteristics of the children, their parents and the place where they live, taking as dependent variables the time devoted to childcare by mothers (Table 2, model D), fathers (mod E), and then the asymmetry index (mod F). In order to verify whether the factors which affect childcare were the same as those affecting housework, we included the same set of predictors in the Tobit model. With regard to the participation of the couple members in the labor market, the only significant effect emerges in the case of full-time women workers and unemployed men: in comparison with couples in which the parents have the same working schedule, the gender gap is reduced when the man is unemployed. This result is the effect of both the reducing of the amount of time that full-time working women devote to their children and the increasing involvement of unemployed fathers in care activities. Thus some of the assumptions of the theory of time availability appear to be confirmed: in female-breadwinner households, the time allocated to the care of children is more equally shared between fathers and mothers. However, we did not get any other significant effects of working time schedules on the maternal / paternal time and asymmetry in childcare. Although the tendency is to a greater participation of the part-timer parents, the model does not provide a clear picture of the effects that can fully confirm the time availability hypothesis.

The time dedicated by mothers to their children is significantly dependent on the age of the latter. In fact, as the number of those in pre-adolescent age increases, the time spent on care activities expands progressively, increasing by 19' (table 2, model D). As shown in other studies, this trend is associated with the reduction of maternal commitment as the number of older children (more than 13 years of age) living in the household increases (Pailhé and Solaz 2004). The presence of teenage children or young adults in the family relieves some of the maternal burden, probably because they take care of and play with their younger siblings. Similarly to what happens for mothers, fathers are also more active as the number of children increases, while they are less involved with the increasing presence of older ones.

A further consideration must be made with regard to the influence of the gender of the child on paternal behavior, since fathers show a tendency to devote more time to their male children, while the no "boy effect" is observed for the mothers. The figure is consistent with other research and suggests interesting directives of study, especially if we consider the evidence shown on the importance of greater paternal investment in the welfare of children (Pleck and Masciadrelli 2004, Zick et al. 2001, Cooksey and Fondell 1996 and Lamb and Lewis 2004). Note that no significant result for children's gender has been observed in the housework models.



Living with other family member makes fathers less involved in childcare, similar to what was observed with housework. It seems likely that cohabitation with other adults relieves the fathers from childcare while, in contrast, for mothers the burden appears to increase (albeit not significantly; Table 2, model D).

TABLE 2. – Tobit regression model on time (in minutes) for childcare. Coefficients and marginal effects.

	Model D - Mothers		Model E - Fathers		Model F - Asymmetry Index	
	Coeff.	Marginal effect	Coeff.	Marginal effect	Coeff.	Marginal effect
<b>Work schedule</b>						
She full-time, he part-time (ref.she=he)	-24.57	-18.33	3.59	2.03	-0.07	-0.05
She full-time, he not employed (ref she=he)	-61.67**	-46.01	42.26*	23.92	-0.41***	-0.25
She part-time, he full-time (ref. she=he)	0.46	0.34	1.73	0.98	0.03	0.02
She part-time, he not employed (ref. she=he)	-5.89	-4.39	29.97	16.97	-0.18	-0.11
<b>Family characteristics</b>						
N.children <14 ys.	26.13***	19.49	14.78**	8.36	-0.001	-0.001
N. children>=14 ys	-60.26***	-44.96	-55.17***	-31.23	0.05 .	0.03
% male children <14 ys	-2.85	-2.12	10.87 .	6.15	-0.04	-0.03
No family member: yes (ref. No)	14.04	10.47	-26.74*	-15.14	0.16*	0.10
<b>Territory</b>						
Centre (ref. North)	2.42	1.80	-6.39	-3.62	0.04	0.03
South (ref. North)	-10.23	-7.63	-11.04 .	-6.25	0.03	0.02
Place of residence :>50000 inh.(ref. other)	9.35 .	6.98	25.01***	14.16	-0.07**	-0.05
<b>Gender gap</b>						
Income she=he (ref. he>she)	-16.40**	-12.98	-10.55 .	-5.97	-0.003	-0.002
Income: she> he (ref. he>she)	-12.01	-8.96	-2.29	-1.30	-0.004	-0.02
Age: she=he (ref. he>she)	8.26	6.16	18.26*	10.34	-0.08 .	-0.05
Age: she>he (ref. he>she)	21.30**	15.89	9.26	5.24	0.004	0.002
Education	3.11***	2.32	1.78*	1.01	0.003	0.002



<b>Intercept</b>	57.77***		-0.46		0.78***	
logSigma	4.73***		4.64***		-0.70***	

Significance level: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.'

The geographical location and the demographic dimension of the town where the family lives affect fathers' behavior: in Northern Italy (compared to the South) and among couples who live in large urban centers there is a greater paternal participation in care for children. Living in territorial contexts where attitudes toward gender roles are less traditional facilitates behaviors that could be considered in line with a modern parenting style. For Italian fathers this implies a greater commitment both in terms of participation in housework activities and in childcare.

Regarding the results for the variables that measure the "relative resources" – comparing female/male income, age and level of education – we found notable differences from those found in models on housework. No such relationship between the economic gap and bargaining is observed or, in other words, it seems that the exchange principle - according to which those who have more resources limit their involvement in household tasks - does not apply to childcare. On the other hand, in those households in which the mother's income is equal to or higher than the male partner's, both parents reduce caring times. Such a result requires further investigation in order to understand what the motivation is behind a simultaneous reduction in the involvement of both parents. For example, by observing in detail the couples in which the woman holds an economic advantage it can be seen that those who have a high professional status and educational levels are over-represented. They probably exhibit a greater attachment to their work, as well as rigid working times and activities that are less reconcilable with care commitments. This could result in a greater recourse to outsourcing care services (babysitting, extended school hours and so on). As another effect, there might be more of a positive impact on the style of educating their children, more oriented to socialization outside the domestic sphere, consisting of a more extensive use of cultural and leisure resources by their children (gyms, language courses, meetings with peers and so on).

The other two gender gap variables produce significant effects: in the case of education, they are valuable for both partners, while in the case of age only on male behavior. When the woman is older than her husband, the share of the childcare burden between partners is more balanced, due to the increased paternal commitment, and the asymmetry decreases (Table 2, Model F).

In the case of the educational gap, the asymmetry tends to increase (though not significantly): when the mothers are more educated than fathers, both partners intensify their childcare activities. These results confirm the absence of exchange in the activity of childcare, contrary to what is postulated by the relative resources theory. Indeed, greater female cultural assets induce both parents to be more involved in the education of their children and to carry out these activities rather than to avoid them.

## 5. CONCLUSIONS



This study has examined time allocation to housework and childcare activities in a gender perspective within Italian households, by applying a Tobit analysis on the more recent Time Use Survey data (2008/09). Focusing on couples with the women employed and with at least one child under 14, we hypothesized that differences in time availability, as well as heterogeneity in income, age and education and the cultural context differently influence the extent of men's and women's involvement in the various activities and shape differences in gender roles. The novelty of our approach is in that we simultaneously tested the three main theoretical hypotheses – time availability, relative resources and the cultural hypothesis – recognized by the literature as the most important explanations of the gendered division of labor. A second challenge of our study is that we applied the same theoretical approaches to both housework and childcare in order to ascertain the different determinants of individuals' allocation of time to the two typologies of activities. Further, we modeled women's and men's time devoted to housework and childcare separately, and also estimated the effects of the same variables on the asymmetry index. Thus, we were able to appreciate which factors, while producing a favorable effect in reducing the asymmetry index, also act either to increase the amount of time men devote to household tasks, or to reduce that for women.

Results confirm the persistence of the gendered division of unpaid work, and the limited degree to which theories of time availability and relative resources explain shares of household work and above all of childcare (Craig and Mullan 2011), while a more consistent role is played by the cultural hypothesis. Overall, our results show once again that within Italian couples the domestic burden share is heavily biased toward women; moreover, they also show that where conformity to the traditional gender ideology appears to be stronger (in the Southern regions and small urban centers), the male contribution tends to be lower and the double burden for women tends to be heavier. Instead, in the more developed Italian regions, men contribute more in both activities, housework and childcare, while women are more involved in childcare than housework.

With reference to the time availability theory, our analyses show that, although a relationship has been found between time spent on paid work and family activities, the exchange between partners does not lead to the ideal one-to-one trade-off and appears to be rather hampered by an unwritten rule that leads women to remain in charge of the house much more than men. The level of fairness in the couple grows when the woman assumes the role of breadwinner, but it does not entail a reversal of the traditional gender roles.

Concerning the relative resources approach, our analyses also show that the gap in favor of women's education does not result in a reduction of their share in domestic work because of an increase in men's commitment, and this leads to the conclusion that education is not a resource in the bargaining process between partners, that is it does not generate greater equity. Conversely, there is an exchange on the basis of the economic assets of women. This result supports the effectiveness of any intervention aimed at encouraging female participation in the labor market on the one hand and on the other at reducing the gender pay gap. This policy would not only favor women's economic capacity, but also reduce their domestic burden. With respect to childcare,



when women's income is more consistent than that of men, there is no reduction of the asymmetry index: this fact highlights the weakness of the relative resources approach in explaining the different involvement of parents in childcare.

It is also interesting to note that the family composition, in terms of number of children, their age and gender and the presence of non-family members appears to have a different influence on the time devoted to housework and parental care. These results lead us to analyze the Italian data by treating the two main activities separately. We outline two further aspects. First, the trend toward a better balance between parents has emerged from a greater involvement of fathers as the number of children increases. This is a matter of further consideration, through an accurate analysis of the type of activity undertaken by fathers. Some studies showed that they are more active at the stage where children need less physical assistance - washing, dressing, putting them to bed, feeding and so on – which gradually give way to more socializing activities, such as doing homework, playing games together and reading (Canal 2012, Combs-Orme and Renkert 2009 and Grey and Anderson 2010).

Another aspect that we want to emphasize is the higher attention that fathers apparently devote to their sons rather than to daughters. We wonder whether the division of childcare between fathers and mothers does not lead to disadvantages for their daughters, since they face less attentive and involved fathers than mothers already at a very early age. Mammen (2011) tried to analyze this issue and showed that girls with brothers can take advantage of time spent with the father (in comparison to girls who only have sisters), although it is not easy to be conclusive about the "quality" of the time shared with fathers and on the long term effects of the relationship between father and daughter.

This is a promising area of research that deserves further study in particular in the Italian case, for which the studies are very limited. Research in the social and psychological area has shown the importance of the role that paternal investment plays in the development and growth process of children. Moreover, the diffusion of a family model where the father is closer and more involved in his children's life could lead to the breakdown of the present gender-stereotyped social system: promoting a culture of equal opportunities among the new generations should be a further goal of family policies.

This result ultimately shows that in order to avoid increasing the asymmetry between mothers and fathers' childcare, family policies that affect parental time should focus on fathers.

However, taking into account our results on territorial differences, any policies intended to encourage more paternal involvement or equal shares of childcare must be sensitive to social contexts, or they may not have the effects intended.

Finally, one caveat of our study should be mentioned: i.e. the lack of data on preferences and attitudes to gender roles capable of fully testing cultural hypotheses. We overcame this limitation by using territorial divisions, which prove to have a significant effect on female and male time allocation to housework and childcare.

Further research is needed in order to better understand the mechanisms of gender inequality and which barriers should be destroyed. With regard to the Italian case, our



results suggest that it could be important to further explore the role of gender ideology in shaping family behavior and affecting maternal and paternal investment of time in childcare and in routine domestic labor.



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