



Centre d'Estudis Demogràfics

**GENDER INEQUALITY IN THE LIFE CYCLE. THE  
EFFECT OF PARENTHOOD ON THE DIVISION OF  
UNPAID WORK**

Marc AJENJO  
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**Abstract.-** *Gender inequality in the life cycle. The effect of parenthood on the division of unpaid work*

The aim of this paper is to test whether younger generations are more egalitarian or whether their more gender-balanced behavior is due to factors associated with the life cycle. Data used in the analysis are from the two editions of the Spanish Time Use Surveys carried out in 2002-2003 and 2009-2010. The unit of analysis is the couple, and we measure the degree of equality within the couple using differences between spouses in the amount of time spent on unpaid work (housework and caregiving). We analyze differences at both moments for generations born between 1963 and 1982. We focus on the changes observed when there is a transition from 0 to 1 child and from 1 child to 2 children. Results confirm that there is a greater difference in the amount of time spent on unpaid work after the birth of a child. However, this pattern is not the same in the transition from 1 to 2 children, which may suggest that the second child has a smaller impact on couples' division of unpaid work.

**Keywords.-** Time use; Parenthood; Life cycle; Gender inequality; Spain.

**Resum.-** *Desigualtat de gènere en el cicle vital. L'efecte de la parentalitat en la divisió del treball no remunerat*

L'objectiu d'aquest treball és provar si les generacions més joves són més igualitàries o si el seu comportament més equilibrat entre gèneres es deu a factors associats al cicle de la vida. Les dades utilitzades en l'anàlisi provenen de les dues edicions de les enquestes d'ús del temps espanyoles realitzades el 2002-2003 i el 2009-2010. La unitat d'anàlisi és la parella, i mesurem el grau d'igualtat dins la parella utilitzant diferències entre els cònjuges en la quantitat de temps dedicat a un treball no remunerat (tasques domèstiques i cures). Analitzem les diferències en ambdós moments per generacions nascudes entre 1963 i 1982. Ens centrem en els canvis observats quan hi ha una transició de 0 a 1 fill i d'1 nen a 2 fills. Els resultats confirmen que hi ha una diferència més gran en la quantitat de temps dedicat al treball no remunerat després del naixement d'un fill. Tot i això, aquest patró no és el mateix en la transició d'1 a 2 fills, cosa que pot suggerir que el segon fill tingui un impacte menor en la divisió del treball no remunerat de les parelles.

**Paraules clau.-** Ús del temps; Parentalitat; Cicle de vida; Desigualtat de gènere; Espanya.

**Resumen.-** *Desigualdad de género en el ciclo de vida. El efecto de la paternidad en la división del trabajo no remunerado*

El objetivo de este trabajo es probar si las generaciones más jóvenes son más igualitarias o si su comportamiento más equilibrado por género se debe a factores asociados con el ciclo de vida. Los datos utilizados en el análisis son de las dos ediciones de las Encuestas españolas de uso del tiempo realizadas en 2002-2003 y 2009-2010. La unidad de análisis es la pareja, y medimos el grado de igualdad dentro de la pareja utilizando las diferencias entre los cónyuges en la cantidad de tiempo dedicado al trabajo no remunerado (tareas domésticas y cuidados). Analizamos las diferencias en los dos momentos para las generaciones nacidas entre 1963 y 1982. Nos centramos en los cambios observados cuando hay una transición de 0 a 1 niño y de 1 niño a 2 niños. Los resultados confirman que existe una mayor diferencia en la cantidad de tiempo dedicado al trabajo no remunerado después del nacimiento de un niño. Sin embargo, este patrón no es el mismo en la transición de 1 a 2 niños, lo que puede sugerir que el segundo niño tiene un impacto menor en la división del trabajo no remunerado de las parejas.

**Palabras clave.-** Uso del tiempo; Paternidad; Ciclo de vida; Desigualdad de género; España.

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**GENDER INEQUALITY IN THE LIFE CYCLE.  
THE EFFECT OF PARENTHOOD ON THE DIVISION OF UNPAID WORK<sup>1</sup>**

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**1.- Introduction**

Individuals learn their gender roles in childhood and develop their gender identity throughout their entire lives (Wight, 2008). Nonetheless, differences are not the same for all ages and family situations; not only do gender roles vary with age, but there are also certain circumstances and events that change these roles (Anxo et al., 2011; Baxter et al., 2008). In this sense, marriage, parenthood and participation in the job market are important factors explaining differences in time use between men and women, especially in the amount of housework carried out by each individual (Treas, 2010).

Gender inequalities in time use begin at very young ages. It is worth recalling that, generally speaking, very few children today perform unpaid work; if they do so, it is only for specific chores. Despite this, however, gender differences between boys and girls can be detected at early ages, and confirm that girls do more housework. Particularly, they carry out a higher number of chores sometimes regarded as ‘women’s work’ (Blair, 1992; Gupta, 2006; Wight, 2008). The magnitude of these differences depends on factors such as the father’s participation in household chores, the father’s employment status and the gender attitudes shown by the parents (Blair, 1992; Ajenjo and García-Román, 2014b). Specifically, the father’s participation in household chores, the mother’s joining the job market and less traditional attitudes all have a positive influence on sons’ greater participation and a more equal division of chores between sons and daughters. At all

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events, these differences tend to increase with age; female adolescents therefore spend more time doing unpaid work than do males of the same age (Shouth and Spitze, 1994).

When they become independent, single men and women tend to show fewer differences in their time use (South and Spitze, 1994). Women continue doing the chores that they did in their parents' homes, while men feel "obliged" to perform them, so the gap is lowered. If we compare single adults with couples, women who live alone (either because they have never lived with a partner or because a relationship has ended) do less housework than married women, while single men do more than their married counterparts (Gupta, 1999).

As a result, the beginning of coupledness signals an enlargement in the gender gap in terms of time. However, what happens to gender gap when couples decide to have a child? In general, entry into parenthood is the event that suppose a bigger change in the allocation of time between men and women, a dramatic increase in inequality (Anxo et al. 2011; Craig and Mullan 2010; Baxter et al. 2008).

The aim of this article is to show the impact of how the birth of a first and a second child affects the gender gap of unpaid work of men and women who are couples in Spain. The Spanish cultural context presents some particularities in regards to the division of roles with semblances to the traditional gender role model and weak governmental policies in regard to work life balance. The unavailability of longitudinal surveys does not allow for a precise measure of the change caused by the newborn, however, the existence of two cross sectional surveys that were carried out using similar methodologies will give us an approximation of the impact. The data used is the Spanish Time Use Surveys from 2002-2003 and 2009-2010. Our approach compares the gender gap in unpaid work for couples without children in 2002-2003 with gender gap in couples with a child-younger than 8 years in 2009-2010. An additional comparison is computed between couples with only one child younger than 8 in 2002-2003 with couples with 2 children-one younger than 8 and another between 8 and 15 years old- in 2009 -2010.

## **2.- The effect of parenthood in the division of unpaid work**

The birth of a child entails an increase in the amount of time spent on unpaid work at home both because of the time needed to care for the newborn and the increase in the amount of housework required by a larger family unit. This burden usually falls disproportionately on



the woman and tends to affect men to a far lesser degree (Craig, 2007; Crompton et al., 2006). In contrast, with respect to the job market, the usual pattern shows a rise in the amount of time men spend at work, while women tend to spend less time working and often leave the job market temporarily and sometimes permanently (Craig and Mullan, 2010; Blossfeld and Drobnic, 2001). Combining parenthood and paid work seems more complicated for women than for men, and the strategies they develop therefore differ (Anxo et al., 2011). The birth of children reinforces gender roles and a more traditional time distribution, enlarging the gender gap for women in unpaid work and men in paid work (Hallberg and Klevmarken, 2003; Moreno Colom, 2009; Sandbergh and Hofferth, 2001; Sullivan and Gershuny, 2001; Sayer, 2005; Bianchi et al., 2000; Dribe and Stanfors, 2009).

The greater inequalities occur in the first few years after the birth of children, since they require less attention as they grow up and mothers often return to work (Kitterod and Ronsen 2013; Moreno Colom 2009).

The gender gap in unpaid work and care activities are generally explained by resource theory and theories on gender socialization (Domínguez-Folgueras 2015). Becker's neo-classic theory (1981) emphasizes the concept of maximum efficiency of the family unit to explain the specialization of tasks. The gender gap is not always a question of employment. Both members of the couple can be employed but there could be a wage gap. This wage gap becomes an element of power in the negotiation of roles, where the partner with the higher income identifies as the main breadwinner and the main decision maker (Blood & Wolfe 1960).

On the other hand, the effect of parenthood on gender inequality in time use varies according to the social and institutional factors where people live. The kind of welfare state system, the degree of gender equality in the country, work-family balance policies and expectations of the amount of unpaid work to be performed are just some of the factors that may influence the inequalities that arise (Hook and Wolfe, 2012; Craig and Mullan, 2010; Geist, 2005; Fuwa, 2004). For example, the effect of specialization may be mitigated by policies that promote mothers working and fathers being more involved in childrearing (Kitterod and Ronsen, 2013; Neilson and Stanfors, 2014). In countries such as Sweden and Norway, where work-family balance policies are comparatively more developed, policies enacted since the 1990s have entailed less role specialization due to motherhood, and time distribution both for fathers and mothers is similarly affected with a drop in the amount of

time spent on paid work and an increase in unpaid work (Dribe and Stanfors, 2009; Kitterod and Ronsen, 2013; Neilson and Stanfors, 2013). Even though inequalities generated by motherhood are lower and to some extent reversible in more egalitarian countries, they are deeper and more irreversible in less egalitarian countries and in those countries where policies implemented by the state are less developed (Bühlmann et al., 2010).

An additional factor is that of social norms and the division of roles is the culturally held symbolism associated with masculinity and femininity. The expectations for men and women affect individual behavior and the allocation of time. In Spain, the perception is that paid work is optional for women, but domestic chores are not, while for men the situation is reversed (Lewis, 2001; Parella y Samper, 2007). This is clearly reflected in the time that men and women spend on those respective activities.

In contrast to trends in housework, where women's tasks have decreased while men's have slightly increased, in recent years the amount of time spent caring for children has been on the upswing for both men and women (Bianchi et al., 2006). In this sense, the new ideals of parenthood promote fathers' greater involvement in raising children and a more active role (Pleck, 2010; Gracia, 2014). Therefore, even though mothers are still the primary caregivers -a role that is also determined by the ideals of 'good mothering'- the gap in the amount of time men and women spend caring for children has dropped (Bianchi et al., 2006; Sandbergh and Hofferth, 2001; Sevilla Sanz et al., 2010). In general, regarding household chores the contribution of men is mainly in less routine and less demanding tasks that suppose a higher personal satisfaction and personal realization (Ajenjo and García 2011). This idea can be also applied to caring activities, where women spend more time in their daily activities, while men spend more time in activities like playing games or reading (Craig 2006).

The type of union (cohabitation or marriage) is one of the aspects that can explain the grade of equality in the couple. The beginning of coupledom -either through cohabitation or marriage- signals an enlargement in the gender gap in terms of time use (Gupta, 1999). Differences increase less in the case of cohabitation, which is traditionally associated with more egalitarian attitudes and shows a division of roles that is at a greater remove from the traditional model (Batalova and Cohen, 2002; Baxter, 2005; Domínguez, 2012b). Even among married couples who cohabitated before marriage, we see a more equitable distribution of housework stemming from the relative freedom that exists during

cohabitation, which enables the partners to divide their time more symmetrically (Baxter, 2005). In addition to the type of couple-based relationship, inequalities within couples also depend on the characteristics of the partners. Thus, higher education or higher income for women is associated with less time spent on housework and a more symmetrical division of time use (Blau, 1998; Bianchi et al., 2000; González and Jurado, 2009; Domínguez, 2012a; Sánchez and Thomson, 1997). Regarding the characteristics of men, even though these are not as influential as the characteristics of women, it should be remarked that higher education is associated with men doing more housework. In such cases, the degree of specialization of chores is therefore lower, and this is also related to more egalitarian gender attitudes (Bianchi et al., 2000; González and Jurado, 2009; Domínguez, 2012a). Thus, in couples where both members have higher education, the negotiation of roles is more egalitarian. In contrast, in homogamous couples with lower levels of education, the division is not as egalitarian and ‘doing gender’ is more obviously manifested (Bonke and Esping-Andersen, 2011).

### **3.- The Spanish case**

Regarding Spain, our area of study, policies in favor of a traditional patriarchal family model survived throughout the Franco dictatorship until 1975 (González, 2001; Castle, 1998; Baizan et al., 2002). Despite advances in recent decades, there are still sociocultural difficulties in promoting work-family balance policies in Spain, since men and women have fully internalized the male breadwinner model (Torns, 2005). The norms of masculinity, which state—for instance—that men should not do housework and should earn more than women, and the norms of femininity, which confer upon women the primary responsibility for housework and the care of dependent children, seem to be more deeply entrenched in Spain, and this can particularly be seen with the entry into parenthood (Sevilla Sanz et al., 2010).

In recent decades, Spanish society has modernized somewhat. This has gone hand in hand with the rising prominence of women in public life, along with policies that promote equality (Lapuerta et al., 2011; González, 2001; Dema, 2005). The most important policies implemented in this respect include the law on equal opportunities between men and women, which has led to the harmonization of work and family responsibilities by

promoting continuous careers for women, and to fathers' involvement in childrearing (Lapuerta et al., 2011). Nevertheless, the effect of these policies has been conditioned by the strength of the traditional family, and despite the desire for greater equality, real-life behavior is still distinct from such a desire. Even though most of the population defends an egalitarian society between men and women, those in favor of women temporarily leaving the job market to care for their children and home are still in the majority (CES, 2011; Domínguez and Castro, 2008).

In support of the difference in time use during the life cycle, a study by Dominguez-Folgueras (2015) shows that couples with children have a more uneven allocation of difference in time use and that these differences are larger when children are younger.

#### **4.- Methodology and data sources**

To show the impact of the arrival of a first and a second child on the gender gap of unpaid work in heterosexual couples; it would be preferable to have longitudinal information on time use in couples, that is, a survey from which we could calculate the amount of time spent on different activities within the same couples at different stages in their life cycles. However, in Spain, this information is rare and difficult to obtain.

To resolve this problem, we use the two Time Use Surveys which the National Statistical Institute has carried out in Spain to date, the 2002-2003 and 2009-2010 editions. Both surveys follow a very similar methodology: they record all the activities undertaken by all members of the household over the age of ten in ten-minute intervals throughout the course of one day. Even though these are not longitudinal studies, similar population features were chosen to make them as comparable as possible.

In both surveys, nuclei made up of a heterosexual couple were chosen, regardless of whether there are other household members. The explanatory variable was constructed based on the difference in the amount of time both partners spent on unpaid work, including routine housework (washing or ironing clothes, washing dishes, mopping the floor, etc.) and non-routine chores (shopping, running errands, caring for pets, etc.). Time they spent caring for either adults or children was also taken into account. All times were tallied, and the difference as a whole was regarded as the best measurement of inequality. Thus, if the woman spent more time on childcare because she was nursing her child at the

time, for the sake of equality, this should be offset by the man spending more time on other unpaid work activities.

To analyze the change caused by the birth of the first child, three cohorts of women who lived with a male partner and had no child in the 2002-2003 edition were chosen: women born between 1968 and 1972, between 1973 and 1977 and between 1978 and 1982. These women were contrasted with women from the same generation who, seven years later in the 2009-2010 edition, had one of the following features: (1) they still had no children; (2) they had a single child who had been born in the past seven years; or (3) they had two children who had been born in the past seven years. In this case, the most important comparison is the contrast between the childless women in the first survey and those who had had a child by the second survey (group 2).

A highly similar logic was used to evaluate change prompted by the birth of the second child; in this case, the most important differences were the selection of generations (see Table 1) and the age of the first child. To facilitate comparisons, we chose couples with children under the age of eight, this being the period that had elapsed between both editions. The three generations chosen among women who lived with a man in 2002-2003 and who had a child under the age of eight were (a) women born between 1963 and 1967; (b) those born between 1968 and 1972; and (c) those born between 1973 and 1977. The comparison was made with women from the same cohort who in the 2009-2010 edition had one of these features: (1) they still had one child only, who was between 0 and 8 years old in 2002-2003, or (2) they had two children, one of whom had been born in the past seven years and the other of whom was between 8-15 years old. In this case, the most important comparison was also between women who initially had a single child and those who, seven years later, had that same child plus another that had been born during that period (group 2).

We separately evaluated the transition from the first to the second child. Methodologically speaking, both analyses were performed in a markedly similar fashion. We therefore explain the methodology of the first only.

In order to estimate the incidence of the first child on gender differences in unpaid work, we used general linear models, taking the difference in the amount of time both members of the couple spent on unpaid work as the dependent variable. First, we generated a model that includes the female cohort and their motherhood status described above as the independent variables, in which the reference category was always the situation in 2002-

2003 (0 children), to make the interpretation easier. Furthermore, all the models included “day of the week” and “availability of domestic service” as control variables. Even though we did not examine the effect of these two variables further, it is known that there is lower inequality at weekends and for couples who have domestic service (Ajenjo and García-Román, 2014a).

**Table 1.- Sample size**

	0 CHILDREN IN 2002-2003		1 CHILD IN 2002-2003	
	2002-2003 (0 children)	2009-2010 (0-2 children)	2002-2003 (1 child)	2009-2010 (1-2 children)
1963-1967 (35-39 in 2002-2003)			294	186
1968-1972 (30-34 in 2002-2003)	329	268	469	265
1973-1977 (25-29 in 2002-2003)	422	428	215	101
1978-1982 (20-24 in 2002-2003)	108	341		

Source: Authors’ own, based on micro-data from the two editions of the 2002-2003 and 2009-2010 Time Use Survey.

In order to estimate the incidence of the first child on gender differences in unpaid work, we used general linear models, taking the difference in the amount of time both members of the couple spent on unpaid work as the dependent variable. First, we generated a model that includes the female cohort and their motherhood status described above as the independent variables, in which the reference category was always the situation in 2002-2003 (0 children), to make the interpretation easier. Furthermore, all the models included “day of the week” and “availability of domestic service” as control variables. Even though we did not examine the effect of these two variables further, it is known that there is lower inequality at weekends and for couples who have domestic service (Ajenjo and García-Román, 2014a).

This analysis enables us to compare changes in the amount of time spent on unpaid work for the group that had no children in 2002-2003 with their situation seven years later, when some of the women remained childless, others had had a single child and others had had two. It also provides initial insight into the effect of generation on these changes.

However, we should bear in mind that, between the two periods, certain sociocultural changes occurred in Spain that may have had important effects on equality in the time

spent on unpaid work. The most important of these are changes in couples' employment status and the change caused by the increase in migration, which led to a considerable rise in the number of non-Spanish couples.

The former change, unquestionably that which has had the greatest effect, was caused by the shift from a sound economic situation to a crisis, which was already quite advanced by 2009-2010. The effects of this crisis on the evolution in the amount of time spent working appeared first through employment status—a rise in unemployment— and second through the characteristics of these jobs—a rise in part-time positions. All these changes led initially to a change in the amount of time spent on paid work and consequently on the amount spent on unpaid work (Ajenjo and García-Román, 2014a).

To neutralize this change as much as possible, a variable was generated by combining the employment status of both members of the couple: dual-earner couples; couples in which only the man works; couples in which only the woman works; and couples in which neither works. Time spent working was included only in dual-earner couples because we estimated that, in the other couples, the importance of working or not was far more important than the workday. Additionally, in dual-earner couples (in which men working part-time was a very common situation), we used only the woman's work time, so that dual-earner couples are divided into those in which the woman worked full-time and those in which the woman worked part-time, regardless of what her partner did.

With reference to the increase in the non-Spanish population, we used the nationality of the couple as a control variable to distinguish between couples in which both members are Spanish citizens and those in which either member is a foreign national.

In consequence, in order to control for the changes that occurred between 2002-2003 and 2009-2010 to the extent that this is possible, after presenting the model described above we generated a second model that included not only the initial variables but also the employment status and nationality of the couples.

Finally, in addition to these variables, we deemed it worthwhile to generate a third model that would include the woman's level of education and the legal status of the couples (married versus cohabitating). These two variables are merely some of those that the literature considers to be highly influential in changes in the distribution of work time (Gershuny, 2000; González and Jurado, 2009; Domínguez, 2012a; Ajenjo and García-Román, 2014a). Despite the fact that this article works with generations, which means that

it does not seem very important to take these two variables into account, we generated this last model to determine whether its inclusion led to significant changes. In fact, we suggest that it is not particularly important given that changes in level of education and cohabitation are actually inherent to age. Thus, when analyzing the same generations, there was some improvement in the level of education of the women between 2002-2003 and 2009-2010, especially among the youngest, resulting from the fact that some women had not finished their education in the first version of the survey. Likewise, there was a decline in cohabitation, but this was also a result of some couples' decision to get married following the birth of their first child (Perelli-Harris et al. 2012).

Despite the fact that the age of the younger child is also important when analyzing the differences in the amount of time spent on unpaid work, this was not included in any of the models; instead this was controlled to the extent that this was possible by adding the restriction that the younger child could not be older than seven, this being the period that separates the two editions of the survey.

## **5.- Results: The impact of children on gender differences**

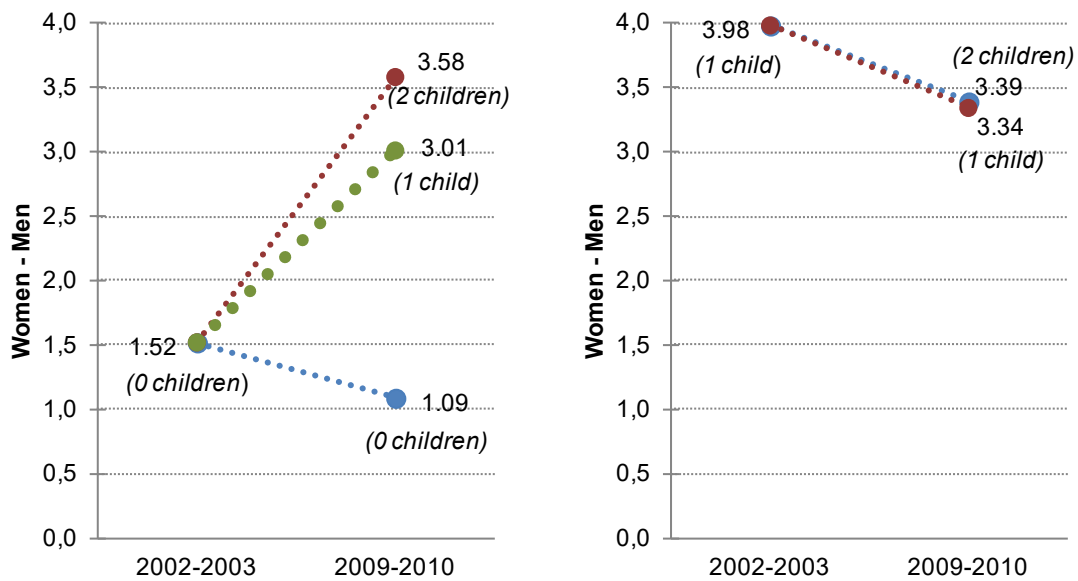
Figure 1 shows the gender gap in unpaid work according to the number of children for the total sample. The graph clearly shows the rise in inequality prompted by parenthood. At the first observation in 2002-2003, when the couples chosen had no children, the difference was an hour and a half. Seven years later, the difference had dropped by approximately half an hour among couples who remained childless. In contrast, the difference had doubled in couples who had had a child during that seven-year period. For couples who had had two more children, the difference increased by two hours.

On the other hand, having a second child led to hardly any changes in gender differences. Furthermore, the changes were the opposite to what we expected: couples who had two children in 2009-2010 were slightly more than half an hour more egalitarian than couples who had one child in 2002-2003.

Some of the previous results were confirmed when we controlled for the other variables, while other results require further explanation, as we indicate below.



**Figure 1.- Time differences between men and women in unpaid work according to number of children**



Source: Authors' own, based on micro-data from the two editions of the Time Use Survey: 2002-2003 and 2009-2010.

The transition from 0 children to 0 children (Table 2). First, when we controlled for type of day, presence of domestic service and generation, we observed a decrease in the gender gap in unpaid work that can be considered an improvement of around 20 minutes ( $-0.35$ ) in equality for couples who had no children in 2002-2003 and were still childless seven years later (Model I). This improvement stems primarily from the change in the partners' employment status: the economic changes that occurred over these seven years should be kept in mind, the main consequence of which was a rise in unemployment, which primarily affected men. Thus, by eliminating the effects of this circumstance on gender differences in unpaid work, we see that the difference dropped so considerably ( $-0.08$ ) that it became non-significant (Model II). Introducing other variables (Model III) only served to confirm that differences are not significant.

The transition from 0 children to 1 child (Table 2). Broadly speaking, we can say that this change is far more significant than the transition from 0 children to 0 children, regardless of economic conditions. We see, first (Model I), that when changing from 0 to 1 children, inequality between men and women rises slightly more than an hour and a half (1.57), which is clearly significant. This difference does not change if we introduce the couple's

employment status or nationality into the model (Model II), nor does it alter if we introduce the other variables (Model III).

**Table 2.- Explanatory model of the change in the differences in the amount of time men and women spent on unpaid work as the result of the first child**

	Model I		Model II		Model III	
	B	sig	B	sig	B	sig
Life cycle. Number of children		***		***		***
2 children 2009-2010	2.280	***	1.807	***	1.889	***
1 child 2009-2010	1.574	***	1.457	***	1.516	***
0 children 2009-20010	-0.352	*	-0.083	ns	-0.014	ns
0 children 2002-2003	ref		ref		ref	
Cohort		ns		ns		ns
1978-1982	-0.228	ns	-0.300	*	-0.354	**
1973-1977	-0.190	ns	-0.150	ns	-0.131	ns
1968-1972	ref		ref		ref	
Employment status				***		***
Neither works			1.026	***	0.955	***
Female breadwinner couple			-2.178	***	-2.156	***
Male breadwinner couple			2.200	***	2.175	***
Dual earner, female works full-time			-0.319	ns	-0.245	ns
Dual earner, female works part-time			ref		ref	
Nationality				ns		ns
Both Spanish			-0.034	ns	-0.076	ns
At least one foreigner			ref		ref	
Educational attainment of the woman						***
Primary or less					0.493	***
Secondary school					0.433	***
University degree					ref	
Type of union						ns
Cohabitation					0.069	ns
Married					ref	
Day of the week		***		***		***
Monday-Thursday	0.547	***	0.609	***	0.591	***
Friday-Sunday	ref		ref		ref	
Domestic service		***		***		***
Yes	-1.316	***	-0.798	***	-0.668	***
No	ref		ref		ref	
Constant	1.417	***	1.086	***	0.735	**
r <sup>2</sup>	0.102		0.264		0.267	

Thresholds of significance as follows: \*\*\* 1%; \*\* 5%; \* 10%.

Source: Authors' own, based on micro-data from the two editions of the Time Use Survey: 2002-2003 and 2009-2010.

In this case, it might be supposed that employment status plays a contradictory role stemming from the crisis and the very fact of having a child. In this respect, the crisis led to an increase in the number of couples in which only the woman worked, even though to a lesser extent than in the previous group (from 3.2% to 7.8%); while having a child led some women to leave their jobs for a certain period, so that the number of couples in which only the man worked rose from 23.6% to 28.1%, just as the number of women who went from full-time to part-time employment rose considerably, from 4.8% to 23.2%. Despite these changes, if we analyze the differences between men and women when the partners' employment status was the same, the differences remain virtually unchanged and are clearly significant, which proves that the change is not due to economic circumstances or to an increase in the foreign population, which have virtually no effect.

The transition from 0 children to 2 children (Table 2). On the other hand, changing from 0 to 2 children in those seven years led to a rise of over two hours (2.28) in inequality regarding the amount of time that men and women spent on unpaid work. This is a significant increase, more than that which occurred in the transition from 0 to 1 child, but it falls dramatically if we include couples' employment status in the model (Model II). It is very probable that some of the women who had two children during this period stopped working in order to care for these children.

The transition from 1 child to 1 child (Table 3). We observed some improvement in couples that had a child under the age of eight in 2002-2003 and still had just one child seven years later, in 2009-2010. This difference, which is slightly significant (-0.48, which is slightly significant  $p\text{-value}=0.042$ ), might be attributed to a reduction in inequalities in those seven years, but it disappears totally and even changes sign when we control for employment status. Thus, the apparent improvement in equality should be attributed to change in employment status, either because unemployment has affected men and women differently or simply because the child no longer requires as much care; consequently, some women who might have previously left the job market went back to work (Model II).

The transition from 1 child to 2 children (Table 3). The differences between couples who had one child in 2002-2003 and two in 2009-2010 are also significant in the first model (significance 0.044). However, this difference runs counter to our expectations, since we would assume that as the number of children rises so would inequality, in keeping with the change from 0 children to 1 child. What we observe, however, is the opposite, namely a certain tendency towards greater equality in the distribution of time spent on unpaid work

(Model I). Regardless of whether or not we control for generation (and the kind of day and the presence of domestic service), couples with two children in 2009-2010 are half an hour more egalitarian than couples with one child seven years earlier.

**Table 3.- Explanatory model of the change in differences between the amount of time that men and women spend on unpaid work as a consequence of a second child**

	Model I		Model II		Model III	
	B	sig	B	sig	B	sig
Life cycle. Number of children		**		ns		ns
2 children 2009-2010	-0.597	**	-0.091	ns	-0.030	ns
1 child 2009-2010	-0.479	**	0.215	ns	0.207	ns
1 child 2002-2003	ref		ref		ref	
Cohort		**		ns		ns
1973-1977	0.678	**	0.323	ns	0.247	ns
1968-1972	0.517	**	0.196	ns	0.150	ns
1963-1967	ref		ref		ref	
Employment status				***		***
Neither works			0.337	ns	0.406	ns
Female breadwinner couple			-4.142	***	-4.023	***
Male breadwinner couple			2.641	***	2.723	***
Dual earner, female works full-time			-0.913	***	-0.751	**
Dual earner, female works part-time			ref		ref	
Nationality				ns		ns
Both Spanish			-0.157	ns	-0.157	ns
At least one foreigner			ref		ref	
Educational attainment of the woman						**
Primary or less					0.646	***
Secondary school					0.468	**
University degree					ref	
Type of union						*
Cohabitation					0.538	*
Married					ref	
Day of the week		***		***		***
Monday-Thursday	0.881	***	1.014	***	1.017	***
Friday-Sunday	ref		ref		ref	
Domestic service		***		ns		ns
Yes	-1.136	***	-0.199	ns	0.036	ns
No	ref		ref		ref	
Constant	3.218	***	2.654	***	2.074	***
r <sup>2</sup>	0.037		0.296		0.302	

Thresholds of significance as follows: \*\*\* 1%; \*\* 5%; \* 10%.

Source: Authors' own, based on micro-data from the two editions of the Time Use Survey: 2002-2003 and 2009-2010.

Generally speaking, the increase in equality between the two periods may be almost entirely attributed to the shift occurring in the kind of couple depending on their employment status, more specifically, to the drop in the number of couples in which only the man works, which went from almost a half to a third of the total (from 46% to 34%). This decrease contributed equally to the increase in the number of dual-earner couples and couples in which only the woman worked. Loss of prominence of more traditional -and the greater presence of more egalitarian- couples would explain why, even though the number of children rose, we observe greater equity (Model II).

This change in the composition of couples has two facets. First, the increase in the number of couples where only the woman works is probably a consequence of the economic crisis and its effect on unemployment, which affects men more than women. Similarly, the increase in the number of dual-earner couples is part of the logical evolution that has been observed in Spain for some years now for women as a whole, that is, a steep increase in female employment. This increase occurs precisely in the prime childbearing years in women's life cycle; at least as initial reflection, one would assume that this is not exactly an ideal period for work. This circumstance, coupled with the opposite circumstance seen in the shift from 0 to 1 child, runs precisely counter to the hypothesis first posited, which supposes the heavy influence of equality with the first child and a much lower influence with the second child.

In order to further examine why the influence of the second child is so small, we questioned to what extent workload changes for both members of the couple on the birth of the second child. The most prominent finding is that the additional workload brought by the second child is not significant for either men or women (the increase is approximately 15 minutes for both men and women, which is statistically not significant). Therefore, the fact that the workload barely rose with the birth of the second child can be attributed to the fact that the impact of the amount of time required by the second child is much lower and affects mothers and fathers similarly, so the influence on gender inequalities is minimal. We might expect that the birth of the second child would require far more involvement by the man, who is less affected by the first transition. However, in reality this is not so; this enables us to conclude that the amount of time needed to carry out all the unpaid work for couples with a single child differs little from the time needed by couples with two children.

The effect of generations. The contribution of generation to the models is very slight and statistically only significant at a level of 0.05 for the 1978-1982 cohort in the complete

model for the first transition (Table 2). This means that differences observed by cohort are due to other variables. However, we found a relatively surprising result in the second transition (Table 3). Specifically, while in the first analysis the differences between the three generations is largely unimportant and the sign always points in the expected direction, that is, less inequality in the more recent generations, in the second analysis we see significant differences between women born between 1963-1967 and those born later (between 1968 and 1977), which points to greater equality among the former. It is important to note that this difference becomes non-significant when we incorporate employment status into the model. The reason is that the first child in both generations was a relatively recent birth. Thus, even though the age of the first child was controlled for by selecting only those couples with a child under the age of eight, this child was on average two years older for the generation born in 1963-1967 than for the other two cohorts. This age difference directly affects women's employment status and therefore the differences between the amount of time men and women spend on unpaid work. Thus, in the generation born in 1963-1967, we see that only the man worked in 34% of the couples, while in the other generations this percentage rose to 44%.

In this case, the most logical sequence is that the older generations had slightly older children at the time of observation; in this respect, some of the women who had previously decided to leave work as a result of having a child were now back in the job market. Thus, if employment status was similar, the generational differences were considerably lower.

The influence of the remaining variables. Focusing first on employment status, we see that there were no significant differences between whether the woman worked full-time or part-time, while other situations did register a difference: if neither partner worked, inequalities were an hour greater. This rises to an inequality of two hours if only the man worked, a situation that was inverted when only the women worked.

In terms of level of education, the differences observed were in accordance with expectations and with what has been described in other studies (Ajenjo and García-Román, 2011). Women who are university graduates achieved greater equality than other women, which resulted in half an hour less in the difference of the amount of time that men and women spent on unpaid work. We also see a significant drop in the inequality at weekends in all models. This reduction is around 35 minutes (0.59) in the transition to the first child and an hour for the second (1.02).

In contrast, neither nationality nor cohabitation made a significant contribution to the model, with non-significant differences between Spaniards and foreigners and between cohabitating and married couples.

## **6.- Conclusions**

In this study, we have questioned whether the greater equality observed in younger couples stems from the fact that they are truly more egalitarian or whether, on the contrary, they are more egalitarian because of their current position in the life cycle, and more specifically because they do not yet have children.

Our first conclusion is that, even though childless couples show a more egalitarian (although not totally egalitarian) division of unpaid work, with the birth of children the roles become more traditional and the gender gap widens.

In this respect, this analysis fully confirms the hypothesis that roles become more traditional with the birth of children. Specifically, taking differences in the amount of time spent on unpaid work by both partners as an indicator of the gender gap, we estimate that parenthood doubles this gap. The additional workload generated by the birth of children has greater repercussions on the woman, leading to a more unequal division of unpaid jobs. This higher inequality takes place during the transition pertaining to the first child; the birth of the second child is non-significant. The impact of the first child on the organization of the household and the division of gender roles is very significant. The second child, as we have seen, has a far lower impact in this sense, probably due to the fact that the couple has already adapted their division of roles to the new situation, one in which the woman plays the role of the primary caregiver. The additional workload brought by the second child is divided similarly between men and women and is, in any event and as we have established throughout this discussion, non-significant.

On the other hand, we found no significant effects for cohort or generation; we cannot therefore conclude that the younger generations are truly more egalitarian, which is a conclusion we might have reached if we examined the raw data. If the younger generations are more egalitarian, this is due largely to the fact they do not have children. We can expect that when these couples have children, inequality will rise and will become similar to the behavior seen for older generations.

Given the major impact of parenthood as a trigger of inequality within the couple, it is valid to inquire into the extent to which these changes are irreversible and prevail within couples. In this area, the results do not allow for much optimism since we did not observe a reduction in these inequalities as the children get older. More specifically, we did not find a significant reduction in inequality in couples who had had a child at the first observation time (a child whom who was therefore 7 years older in the second observation time) and did not have a second child. In light of this, it would appear to be very complicated for couples to return to the same degree of equality they experienced in the period before having had children, and the new traditional role division seems irreversible.

Our conclusions are not independent of the general context in which the study was undertaken, namely Spain. Previous studies on how roles become more traditional after parenthood have been carried out in the Nordic countries (Dribe and Stanfors for Sweden; Kitterod and Ronsen for Norway; Neilson and Stanfors for a variety of countries) and these studies found that the effect of parenthood on such roles existed, but was much lower than that which we found in our analysis. The fact that the traditional model prevailed in Spain until the 1990s means that certain remnants of this model still survive and can be seen more clearly with the birth of children. In view of the lack of public policies to help balance work and family life, couples tend to take on more traditional roles, giving the father the main role in the job market and the mother the main role in the private sphere. We see that this even happens in couples where the woman has a better job (generally speaking, through having a higher level of education), which she could bring to bear in the negotiation of roles. To examine the reasons behind these more traditional roles prompted by parenthood, perhaps a qualitative study could be performed that would enable us to further inquire into why the principles of the traditional model are 'revived' with the arrival of parenthood.

In addition to a qualitative study, it would also be very useful to complement this current study with a longitudinal source that would analyze these same couples at different moments in their life cycle. Nonetheless, despite these limitations, the approach presented in this paper, which consisted of comparing two fairly similar populations through two cross-sectional sources, has provided very interesting results.

The effect of the life cycle is much more important than that of cohort when we analyze gender equality in couples. This leads us to predict that society will evolve more slowly



towards greater equality in the division of jobs within couples than what we might otherwise predict if the younger cohorts were truly more egalitarian.

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