



# Work Schedules and Parents' Time Use

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## **ABSTRACT**

This study uses data from the 2009-2010 Spanish Time Use Survey to study the effect that different work schedules have in the time spent on leisure activities with the different family members. We define 4 work schedules; standard shift, evening shift, split shift and night shift. The split shift, that implies a long lunch break, is a very common work schedule in Spain. In fact, according to the “Encuesta de Coyuntura Laboral 2012” 44.7% of the workers reported having a split shift. Results show that working a split shift reduces time spent in family activities and parent-child activities. The evening shift workers also show generally diminutions in the time spent together with their children and their partner (family time).

## INDEX

1. INTRODUCTION .....	3
2. PREVIOUS LITERATURE.....	5
2.1. Time allocation theory .....	5
2.2. What estimation method to use? .....	7
2.3. Analytical framework .....	10
3. DATA, VARIABLES AND DESCRIPTIVE ANALYSIS .....	12
3.1. Subsample .....	14
3.2. Variables.....	15
3.2.1. Dependent variable: Time-use .....	15
3.2.2. Explanatory variable: Work schedule.....	16
3.2.3. Other control variables .....	19
3.3. Descriptive analysis .....	20
4. EMPIRICAL RESULTS .....	21
4.1. Separately estimation methods .....	22
4.1.1. Tobit model .....	22
4.1.2. OLS model .....	23
4.1.3. GLS: Poisson-gamma distribution model .....	24
4.2. Jointly estimation methods.....	26
4.2.1. SUR model .....	26
4.2.2. 3SLS model .....	27
4.3. Dual-earner couples .....	29
4.3.1. GLS: Poisson-gamma distribution model and SUR model for dual-earner workers. 29	
5. CONCLUSION .....	29
6. REFERENCES .....	32
7. FIGURES AND TABLES.....	34

## 1. INTRODUCTION

It has not been that long since women started participating in the labor market in a massive way. With the increasing participation of women in paid work new concerns arose, as for instance, how will individuals reconcile family time and work time. When women rarely participated in the labor market traditional roles made women the ones looking after the house and the children, while the husband was the one earning the money to support the family in the working place. With the entry of women in the labor force after the World War II and mainly since the 1970's another form of organization within household is necessary as traditional roles are no longer adequate for the new circumstances (Jacob & Gerson, 2005).

In this paper we are going to study how spouses coordinate the time they spend with each other and with their children depending on their work schedules. Parent's amount of paid work is likely to influence family life, but their work schedules can also critically interfere with family activities. Presser (2003) suggested that working non-standard hours is generally detrimental to family life. There is not a clear definition of what a non-standard work schedule is, but most studies consider working during weekends or weekdays after 5-6 p.m. as a non-standard work schedule.

We are going to consider that for being a standard work schedule the individual has to be working at least three hours in the morning from 7:00 till 16:00 and less than 2 hours from 16:00 till 24:00. Other combination of work schedule would be non-standard.

We are going to focus on how this different work schedules change the amount of time that each parent spends in parent-child activities, in activities for the whole family where the partner and at least one of the children are involved, in activities for the couple, and in activities by herself or himself or with other people outside the household members.

Parents should be motivated in engaging in family activities as it plays a critical role in improving the family solidarity and relations (Bianchi et al., 2006; Dew, 2009). To get involve in family activities both parents and at least one child are needed. This means that there has to be synchronization in the schedules of, at least, three members of the family. While parents may have different work schedules, children schedule is quite fixed when they are at school age. In the first years of education (kindergarten and primary education) most school schedules finish at 4 p.m. or 5 p.m. After the school hours children might have out-of-school activities that normally finish between 5-6 p.m. This schedule matches quite well the standard work shift but it could be a

problem when the parents have an evening or split shift. Most European schools have continuous school day that finishes between two thirty and three o'clock. These school schedules are each day more common in Spain<sup>1</sup> and could make even more difficult for parents to spend time with their children when they are working even a standard shift.

The motivation to engage in parent-child time when the other partner is not present should be also high for parents as it promotes close parent-child relations (Roeters, Van Der Lippe & Kluewer, 2010) and child development. This parent-child time improves kid's physical and intellectual ability (Li et al., 2013). For engaging in parent-child activities only one of the parents is needed, therefore coordination among spouses work schedules is not necessary. But, once again at least one of the parents needs to be available when the children are not in school or in extracurricular activities. We could expect that some parents will try to coordinate with each other in order not to leave children unattended, that is, that the children are with one of them. In this case they would decide that at least one of them will finish earlier the work day if possible. For this reason it would be interesting to study how the spouse work schedule affects the time the individual spends with their children, as we would expect that if the spouse is working an evening or split shift then the individual will be spending more time in activities with their children.

The time that both spouses spend doing activities together and without the children (couple time) is also important. Psychologists point out the importance of engaging on activities with your spouse as this would improve the relationship among the spouses, which would also improve the family life. These couple activities are normally done when kids are not present or when they are sleeping. If both parents work an evening or night shift then they could engage in couple activities in the morning, but it is unusual that neither of the spouses work in the morning. Therefore, we would expect that working an evening or a night shift will decrease the time spent in couple activities.

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<sup>1</sup> The continuous school day has increased in most public schools of Spain. This kind of schedules, that implies going to class only during the morning, it is already the most common option in 12 out of 17 of the autonomous communities. Before this schedule only the pupils of high school had it, but in the last 5 years have increased significantly in centers of infant and primary education in 9 autonomous communities. (O. R. Sanmartin, 2014)

Regarding the last time-use considered, non-family leisure time, it is also important for the whole family as it gives the individual time to focus on their hobbies and build social relations outside the household. Non-family leisure time improves the individual well-being, minimizing the stress and health risk (Mattingly and Sayer 2006). For engaging in oneself time, you do not need to coordinate your schedule with that of any other family member, so it is more frequent to engage in this type of activities when the other family members are at school or working. Therefore we expected that individuals working the evening shift will spend more non-family leisure time as they are free when their spouses are busy, assuming that the spouse is working in the morning.

Considering the importance of engaging in this four time uses as we have explained before, and the observed large increase in female labor force participation rates narrowing the male-female gap (graph 1), it is important to make easier the work-family balance. Making work schedules more compatible with school schedules might be a way of facilitating the conciliation of the labor and family life. It was discussed during the previous political campaign in Spain the benefits that ending the working day before six o'clock could have. With this study we want to analyze if this policy changes would have a real effect in time spent with different family members. This policy changes might, in addition, have a positive effect on the decision of having more children per women, as in the last 40 years there have been an important decrease in the fertility rate of western countries.

## **2. PREVIOUS LITERATURE**

### **2.1. Time allocation theory**

In this paper we are focusing on how individuals allocate their leisure time, considering with whom they spend this time. One of the first people to study the allocation of time with an economic perspective was Gary Becker in 1965 on his now well-known paper "A Theory of the Allocation of Time". Becker along with Jacob Mincer was one of the pioneers of the New Home Economics, an approach that studies family decisions considering the household, and not the individual, as the unit of analysis. According to this approach parents may prefer to have fewer children of higher quality by devoting higher resources to them. This will also include spending more time with each child.

One of the main assumptions of their approach is that the households try to maximize their utility with commodities. These commodities are produced using time and market goods. Each household has their own time and budget constraints. Households where both parents work could have a larger budget but their leisure time will be more limited so they may prefer to consume more market goods (for example: having lunch at a restaurant) instead of time consuming commodities produced at home. When one of the spouses does not work, they could decide to increase the consumption of time consuming commodities (for example: eating homemade meals), and decrease the consumption of market goods as their budget is more limited. Depending on the time and budget constraints of each household they would decide how to arrange their consumption between market good and time consuming commodities.

Another concept discussed by the New Home Economics is the comparative advantage. A spouse may be more productive in certain types of housework than his/her partner. Therefore each spouse spends his/her housework time on those commodities in which he/she is more productive. They may substitute time by market goods for the production of other commodities where they are not as productive. This idea considers that housework time may be gendered, as men and women areas of expertise may be different.

Gimenez-Nadal and Molina (2012) pointed out that one of the main questions that many researchers have tried to answer inside the approach of New Home Economics is how the members of a household decide to allocate their resources (time and money). There are different economic approaches that have tried to answer this question. One of the alternatives is a model that sees the household as a place of conflict and cooperation, where intra-household bargaining models and collective models are found. The second alternative is based on competitive marriage market models. These models' main assumption is that prospective spouses, when in the marriage market, can make binding agreements about allocation of time in marriage. All the previous models incorporate the issue that joint family decisions can be derived from the sometimes divergent interests of males and females.

In this paper we determine how the different work schedules, of both spouses, will affect the amount of time they decide to spend with other members of the household, that is their time allocation. For spending time with your family there have to be coordination among the household members, so it is easier to do so when parents and children have leisure time at the same hours of the day. Working nonstandard hours is generally detrimental to family life (Presser, 2003). How

non-standard work schedule is defined differ from one study to another. Presser (2003) defines it as working outside 9 a.m. to 5 p.m. time interval. Li et al (2014) define a non-standard work schedule as that which implies to work before 6 a.m. or after 6 p.m. They include in this category evening shift, night shift, split shift, working in a rotating shift (i.e. alternating between day, evening or night shifts, but on a fixed schedule), irregular hours, and regular weekend work. Presser (2003) points out that nowadays many countries have service economies, what he calls the “24/7 economy”. This type of economies comes with the idea that there exists demand every day of the week at any hour, what raises the need of non-standard work-schedules. This labor market trend has raised concern about its potential impact on children’s well-being (Li et al, 2014).

To date only three studies, that I am aware of, have analyzed how parents’ work schedules are related to multiple daily activities. Lesnard (2008) used French data to find out that working nonstandard work schedules is negatively associated with the time that individuals spend with their children, their spouse, or with their whole family. He also found that parental care time was more responsive to the spouse’s work schedule among mothers than fathers. Wight et al. (2008) using data from the U.S. also found that nonstandard work schedules affected negatively to the time that individuals spend with their spouses, but they found positive association among nonstandard work schedules and time spend with children. Wight et al. (2008) only consider the work schedule of the individual under study and not the work schedule of the partner. Finally Gracia and Kalmijn (2015) used 2002-03 Time Use Spanish Survey to find out that the split shift had a strong negative effect on family time and on time spent with children. They also found that the evening shift had a negative effect on family and couple time, but not on time spent with children. They also found some differences among genders. They found that mothers spent much more time than men with children for all work categories, and that women were more responsive to the spouse’s work schedule.

## **2.2. What estimation method to use?**

The time use survey data provides a diary of activities in which each individual, aged 10 years or more, write down what activity has carried out throughout the selected day, in slots of 10 minutes, and, especially important for our study, with whom performs that activity. We are going to analyze four different types of time uses bearing in mind with whom they have spent that time: family time, parent-child time, couple time and non-family leisure time.

Family time refers to daily minutes in the presence of spouse and children together. Parent-child time refers to daily minutes with children and without one's spouse. Couple time concerns daily time spent with one's spouse without children. Finally the non-family leisure time makes reference to daily minutes spent on leisure and without the presence of children's or one's spouse.

We have found, in the literature, a discussion about what estimation method we should use to analyze the data given by the Time Use Surveys. We have to consider two different problems that we face with this type of data. The first one is the large number of zeros that the individuals report in their diaries of activities. The second one is the time constraint. We only have 24 hours a day, therefore, if we decide to carry out an activity we are also deciding not to spend that time performing another. In other words, the activities (or time uses) are mutually exclusive. You cannot be spending your time alone with your partner at the same time that you spend time alone with your children.

Concerning the first problem, in this kind of data there a lot of zeros in the minutes per day that an individual spends in a specific time use (family time, parent-child time, partner time or non-family leisure time). Many individuals report that they are not doing a certain activity in the survey day. However, that does not mean that those individuals do not perform that particular activity. They may carry out that activity other day of the week. In this case we call those zeros "false zeros". The false zeros appeared when individuals report that they are spending zero minutes in a certain time use or activity in their diaries of activities, but, in reality, they do perform this activity or spend some minutes per day in that time use but not in the reference day. If we would expand the reference period, for example instead of analyzing only one day we consider a 48 hours period, these false zeros would tend to disappear. This was demonstrated by Foster and Kalenkosky (2012) with data from Australia where the survey is done for a 48 hours window length.

In our sample we are considering cohabiting couples that live with their children, so it would be really difficult for an individual not to spend any time with his/her spouse, with his/her kids, or even get some time to himself/herself. Therefore, it is very likely that many of the reported zeros are not real zeros but false zeros.

We know that when we have data with a lot of zeros the most used estimation method is the Tobit model for censored data. In the Tobit model we consider that the observable variable is equal to a latent variable whenever the latent variable is above zero and 0 otherwise. But when

the reported zeros are not real zeros, that is, we do not have censored data, according to Stewart (2013) the Tobit models may generate biased estimates in certain circumstances, while OLS models generate unbiased estimates in all circumstances. So, OLS models are preferred for use in the analysis of time allocation decisions. However, Foster and Kalenskoy (2012) argue that when some of the reported zeros are in fact real zeros, an argument can be made that some censoring is real and should be addressed via estimation of a Tobit model. In this case, as there is true nonparticipation, the OLS estimator is still theoretically biased.

Hammer (2012) analyzes four alternative estimation models to study the housework and childcare activities in the Austrian case. Apart from OLS and Tobit models he also analyzes two different generalized linear models (GLM), one of them with the negative binomial distribution, and the other with the Poisson-gamma distribution. He highlights the good results obtained with the generalized linear model with a Poisson-gamma random component. He points out that this estimation model is flexible enough to provide a reasonable fit for most distributions and, in particular, also for activities with a large number of zero observations and heavily skewed distribution. He also stands out that OLS and Tobit models are based on normal distribution and homoskedasticity what does not fit his data.

Concerning the constraint problem, in our case, the time that we spend alone with our spouse is time that we do not spend alone with our kids or by ourselves, so the time uses are mutually exclusive and likely mutually decided. To consider this we could estimate each time use equation assuming that they are correlated instead of estimating each equation separately. The two methods most frequently used to take into account this possible correlation among time uses are the seemingly unrelated regression model (Zellner and Theil, 1962) and the three stage least squares (3SLS).

Using a seemingly unrelated regression model (SUR) we allow the error terms of each equation to be correlated with each other. A SUR model could be estimated using an OLS model or using a Tobit model. If we use the OLS version we could be solving both problems at the same time. If we use a SUR model and the errors are not correlated then our results would be the same as estimating each equation separately by OLS.

We could also take into account that we have information of spouses and estimate time uses of both spouses jointly, assuming that decisions within the household are taken simultaneously and

that the decisions that your partner makes will have an influence in your own time allocation, mostly in your family and partner time uses. In this case, we could estimate the model by 3-stage least squares allowing each time use to be included as an explanatory variable for the other time uses. In this case we estimate the twelve equations, six time uses for men and six time uses for women, simultaneously as they may influence to each other. This method combines multivariate regression (seemingly unrelated regression estimation) and two stage least squares. It tackles mainly two problems: the endogeneity of the time use variables included as explanatory variables and the cross-equation correlation of the errors that may arise from having a system of several regression equations.

The three steps of 3SLS can be summarized as follows:

- Step 1. Develop instrumented values for all endogenous variables. These instrumented values can simply be considered as the predicted values resulting from a regression of each endogenous variable on all exogenous variables in the system.
- Step 2. Obtain a consistent estimate for the covariance matrix of the equation disturbances. These estimates are based on the residuals from a 2SLS estimation of each structural equation.
- Step 3. Perform a GLS estimation using the covariance matrix estimated in the second stage and with the instrumented values in place of the right-hand-side endogenous variables.

Gracia and Kalmijn (2015) estimate a SUR model in its OLS version separately for men and women. But the results could be improved if we use a 3SLS model for both genres at the same time, considering twelve equations where the dependent variables are family time, parent-kids time, parent-young child time, parent-old child time, partner time and non-family leisure time, all of them for both, mothers and fathers. Using this method we will estimate how the time spent by one spouse affects the other spouse's decision. We could also improve the SUR model used by Gracia and Kalmijn (2015) by estimating the equations of men and women together and allowing for correlation among gender.

### **2.3. Analytical framework**

Bearing in mind Gracia and Kalmijn (2015) paper, three theoretical perspectives will be considered which will help to define the hypotheses that are expected to be satisfied. The first perspective

holds that parents nowadays have strong child-oriented norms, which drives them to organize family life to meet children's development needs (Bianchi et al., 2006; Drew, 2009). Parents prioritize their time with children over other activities, and they could synchronize their work schedules to maximize parental care supervision. For example, they could decide not to have the summer vacations at the same time, so their children are less time without their parents at home during their summer vacations (Presser, 2003).

The second perspective is the time-availability. Parents' working conditions and schedules impose constraints on their time allocation (Presser, 1994). Children have a fix schedule during the week when they are at school so activities in which the children take part are often schedule for evening hours. If the parents are working in those evening hours there is a conflict between their leisure time and their children's leisure time. This approach also argues that the time-use of one of the parents' is influenced by the other spouse's working conditions and schedule. When one spouse engage in paid work, the other one will spend more time with their children, especially if they engage in paid work in those hours that conflict with children's free time.

The third perspective is based on the "traditional" gender norms and ideologies that make women and men to divide paid work and unpaid work unequally (Craig and Mullan, 2010; Hochschild and Machung, 1989). From this perspective even when both spouses engage in similar paid work, gender norms lead women to spend more time with children and men to spend more time in nondomestic activities (Hochschild and Machung, 1989).

With these three perspectives in mind, and with the results from previous studies as the ones from Lesnard (2008) and Wright et al. (2008), the following hypothesis for the four main different uses of time that concern this study are going to be tested:

1<sup>st</sup> hypothesis: Split shift and evening shift workers and their spouses spend less time in family activities than do standard shift workers and their spouses.

2<sup>nd</sup> hypothesis: Split shift and evening shift workers spend less time in parent-young child activities than do standard-shift workers. Parents with a spouse working the split shift or the evening shift spend more time in parent-child activities than do parents with a spouse working the standard shift, and mother-child time is more strongly associated to the spouse's work hours and schedules than is father-child time

3<sup>rd</sup> hypothesis: Evening shift workers and their spouses spend less time in couple activities than do standard shift and split shift workers and their spouses.

4<sup>th</sup> hypothesis: Evening shift workers spend more time in non-family leisure activities than do standard-shift and split-shift workers. Parents with a spouse working the evening shift spend more time in non-family leisure than do parents with a spouse working the standard shift or split shift, while these associations are stronger for fathers' non-family leisure than for mothers' non-family leisure.

In part 4 will be shown if evidences supporting the expected hypothesis are found.

### **3. DATA, VARIABLES AND DESCRIPTIVE ANALYSIS**

For this study we use the data given by the Time Use Survey of Spain (STUS) in 2009-2010, where we have information about households. The Time Use surveys are considered the best statistical sources for analyzing individuals' daily activities (Gershuny, 2000). The Spanish time use survey as most of these types of surveys has a diary of activities where individuals report all the activities they have done for a reference period. In the case of Spain this reference period is of 24 hours. Other countries as in the case of Australia individuals report their activities for 48 hours instead of 24. In our study we are only going to use data from Spain so we will focus on this case. In the diary of activities, individuals from a household, who are 10 years old or older, will report what they have done during 24 hours, dividing the day in 144 slots of 10 minutes each. The reported information will start at 6 am and there will be recorded information until the next day at 6 am. In this diary individuals will report not only the activity that they are doing but also with whom they are at that moment, that is, if they are alone, with their partner, with their parents, with a child younger than 10 years old, with other member of the family, or with other acquaintance. In this study we are going to consider this information and not the specific activity that they are doing, focusing on with whom they are doing the activity, not on the activity that the individual is performing. The 24 hours will be separated in different time uses or activities depending on with whom they are.

The Time Use Survey of Spain does not only report information on the daily activities, there are other variables reported that we would also use for our study. The STUS of 2009-2010 is divided in 8 different files:

- Household questionnaire: with information about the localization and characteristics of the household. From this questionnaire we are going to use three different variables. The type of household, as we are going to only consider households where there is a couple living with at least one son or daughter younger than 25 years old. We would also consider the number of kids younger than 10 years old that are in the household, as these are the ones that need more care and time. We would also consider if they have domestic service or not as this may influence on the time that you are able to spend with your kids or partner.
- Household members' questionnaire: gives information of each member of the household. We will consider their age, sex and if they are unemployed. Also in this file we find the relationship among the different members of a household that we will use to identify the spouse and children.
- Individual questionnaire: provides information on the individual's relation with the economic activity, if they have worked or not the last week, and also information on their job if they have one. It also gives information on the individuals' general demographic characteristics. We will focus on their education level.
- Activity diary: it is only completed by the individuals that are 10 years or older. It gives information on the activities that they have done and with whom each 10 minutes of the reference day starting at 6 a.m. and going until 6 a.m. of the following day. It has 144 slots of 10 minutes each. We are going to focus on with whom the individual was each 10 minutes of the day; alone, with the partner, with the parents, with a child younger than 10 years old, with other member of the household, or with other acquaintances.
- Complementary information to the activity diary: gives information on when the diary was filled and also on if the reference day was a typical day or not (e.g. traveling, on holidays, sick...).
- Weekly paid work schedule: it is completed by individuals that are 16 or older and that are employed at the moment of the interview. It provides information on their work schedule for a whole week. The seventh day will always coincide with the reference day of the diary

of activities so we are only going to focus on that day. We have information on each individual and on whether they were working or not in each slot of 15 minutes of the day (96 slots of 15 minutes).

- Weekly paid work schedule characteristics: it gives information on if the reference week was a typical week or not (e.g. traveling, on holidays, sick...).
- Domestic service: it has information on the characteristics of the domestic service. We are not going to use this file as we are only going to consider whether the family has domestic service or not and we can find this information on the household questionnaire.

### **3.1. Subsample**

For our study we are going to restrict our final sample to heterosexual couples without other adults in the household, where the two spouses are between ages 25 and 59 and have at least one child younger than 18 years old. We are also going to drop from the sample the couples which reference day was during the weekend, as most people engage in paid work activities during week days, and we want to have a homogeneous sample in order to study the effect of the different work schedules on time allocation. Our final sample will consist on 1,222 couples.

We are only considering households without other adults apart from the couple in the house because if there were other adults, for example grandparents, the patterns of the family could differ as the grandparent might have a more active role in the family. They could cook dinner or do some of the housework and childcare. This may have an effect on the time spent with the family members by the spouses. Therefore we will only focus in families with 2 adults in the household so we have a more homogeneous sample. We are also restricting to heterosexuals couples because we are trying to do a gender study, but it could also be interesting to see how no heterosexual households behave and if they have a similar pattern to our subsample.

For our study we are going to focus on how parents decide to allocate their time, so we are going to focus on the couple instead of in the whole family. We will consider how many kids are in the household and their ages, but the aim of our study is to analyze with whom mothers and fathers spend their leisure time and detect any difference among gender and among the different work schedules.

We are also going to create a second subsample, which will be restricted to only those households where both parents are engaged in paid work (N= 495 couples). The main objective of our study is to see the effect that having a non-standard work schedule has on the time that individuals spend with the members of the household and how this differ between men and women. When one of the members of the family is not working the coordination among the spouses is easier, but restricting the sample to working spouses we could study how they coordinate their leisure time spent with family members depending on their work schedules when both spouses are engaged in paid work.

### **3.2. Variables**

#### *3.2.1. Dependent variable: Time-use*

In particular, we are interested in study with whom spouses spend their non-working hours. To come out our goal, we divide that time into 4 categories: family time (partner and children at the same time), minutes per day spent only with their children, minutes per day spent only with their partner and minutes per day spent without family members. We would expect the different work schedules to have an effect on the minutes per day that an individual engage in each of these different time uses.

#### Family time

Family time is that spent with the partner and at least one of the children at the same time, what means that at least three different household members' schedules have to be synchronize for engaging in this type of time.

#### Parent-child time

We are going to divide this time into three categories: the first one is defined as the time that the parent spends with children younger than 10 years old; the second one is defined as the time that the parent spends with children between ages 10 and 25; and the last one as the time that the individual spends with young (under 10 years old) and old (10 years or older) children at the same time. The reason for this separation is how the data is presented in the diary of activities. The diary of activities give us information about if the activity is being made alone, with your partner, with your parents, with a child younger than 10 years old, with other member of the household, or with other acquaintances. As in our subsample we are only taking into account households with a couple and kids younger than 18 years old without any other adult in the household, when the

individual answers that he/she is spending that time with another member of the household that member must be a children between 10 and 25 years old.

#### Partner time

It is defined as the time that the individual spends with its spouse, by themselves without any of their children. It will be easier for couples to engage in this kind of activities while their kids are not at home or they are sleeping.

#### Non-family leisure time

This would be the time that the individual spends without any member of the household, that is, the time spent by himself/herself or with friends. We would expect that if a spouse is not working while the other members of the household are engaged in work or at school, him/her non-family leisure time will increase. This is the only use of time where no synchronization of members of the household schedules is needed.

#### *3.2.2.Explanatory variable: Work schedule*

Our main control variable is the individuals' work schedule variable. We are interested in analyzing the effect that each work schedule has on the minutes per day that an individual spends in each of the time use categories defined above. The work schedules are mutually exclusive. We also include the nonemployed variable to capture the effect of parents that were not engage in any paid work.

In graph 2 we can see the percentage of men and women engaged in paid work at each hour of the day. This graph has been elaborated from data of the STUS of 2009-2010 using the information reported for the 7<sup>th</sup> day of the weekly paid work schedule file. In the weekly paid work schedule file all working individuals reported for each 15 minutes of a whole week if they were working or not. As we have mentioned before, the seventh day of the weekly paid work schedule always coincides with the reference day in which individuals have to fill in the activity diary. In the graph, we can clearly observe two peaks, one in the morning from 8 o'clock till around half past one and the other one in the afternoon from three o'clock until six thirty. This shows the split shift where working hours are divided between the morning and the afternoon. As shown by Amuedo-Dorantes and de la Rica (2009), other European countries working days show only one peak where a diminution could be seen during the lunch break, but this diminution is shorter and less acute.

Consequently we could say that the split shift is specific of the Spanish case. Moreover, most European countries finish their working days earlier, what makes easier to balance the family-work life.

To do the classification of the different work schedules we have considered Gracia and Kalmijn' (2015), but with some modifications with which we had tried to approximate closer the non-standard work schedules definition of other papers in the literature. Gracia and Kalmijn (2015) considered that an individual had to finish his working day at least at 8 p.m. to not be included in the standard shift. Bearing in mind Li et al. (2013) and Amuedo and de la Rica (2009) studies we have redefined the work schedules and classify a person that works after 6 p.m. as working a non-standard schedule.

We have also included the night shift that was not included in Gracia and Kalmijn (2015). Furthermore, we have considered that nonemployed people can be divided in two different groups (unemployed and no working) as we think their characteristics are different. We have people that are unemployed in the reference day, and people who being employed did not perform any work activity in the reference day. Gracia and Kalmijn (2015) put those people together in the same category.

#### Standard shift

In this category we will include a typical work schedule from 8:00 till 17:00. The individual will be working while the kid is at school so this work schedule interferes to a lesser extent with the family duties. We will also consider that an individual is part of this category when he/she is working 3 or more hours from 7:00 till 16:00 and less than 2 hours from 16:00 till 24:00. With this definition most people included in this category will be finishing their work before 6 o'clock. Li et al. (2014) considered that a non-standard work schedule is one that implies working between 6 in the afternoon and 6 in the morning. This is compatible with our definition.

#### Evening shift

In this shift we will include people that do not work during the morning (before 14:00) and that work 3 hours or more between four in the afternoon and midnight. Therefore a person that starts at four should be working at least until 7 to be considered part of this work schedules. In Spain

most kids stay in school until 4 or 5 in the afternoon so a parent that leaves work at 7 o'clock could be missing some valuable time with their kids.

#### Split shift

This category should include people that work during the morning and the afternoon, with a long lunch break. This break makes their work hours to expand during the day, and they will be still working when their kids have finished school. We are going to define this work schedule as individuals that work 2 or more hours from 7:00 till 14:00 and that work also 2 or more hours from 16:00 till midnight. With this definition all of them will be arriving home after 6 o'clock, when we would expect their children to be already at home.

#### Night shift

We will consider that an individual has this work schedule when he/she does not work during the day (before 21:00) and is working 3 hours or more between 22:00 and 6:00. This work shift was not included in the original paper by Gracia and Kalmijn (2015).

#### Nonemployed

We have divided the non-employed people into two categories as in our opinion both categories may have very different characteristics.

- 1) Unemployed: people that report that they were unemployed when the survey was conducted. Therefore they report 0 hours of work on the reference day.
- 2) Not working: People that report that are employed but in the reference day reported zero hours of work. They could be on holidays, sick, or they could have a free day. It could also be people that work during the weekends or very few hours per week so they have not worked the reference day.<sup>2</sup>

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<sup>2</sup> Remember that we have dropped from the sample people which reference day was during the weekend. However, we include people whose reference day is during the week but they work during the weekends

### *3.2.3. Other control variables*

We include as explanatory variables some variables that will capture variations among individuals opportunity cost, lifestyles, and demographic characteristics. Even though they are not our main aim, it is important to include them in order to not overestimate the effect of our principal independent variable, the work schedules.

- Total work time: total hours that the individual have worked the reference day. To capture the effect of this variable we have included three dummy variables: part-time, when the individual has worked less than 6 hours; overwork, for when the individual has worked more than 10 hours. The last category, full-time will include the individuals that work between 6 and 10 hours. We include these three dummy variables instead of a continuous variable of the total number of hours worked to be able to distinguish those individuals who are unemployed from those that being employed do not work the reference day, as all those people are working 0 hours.
- Education: we will include four different dummy variables to cover the highest level of education that the individuals have reached. Primary education will include people that do not know how to write or read; people that have not finished their primary education and people with primary education as their highest education level. The second category, low secondary education, will include people that have reached secondary education of first level (ESO or equivalent) as their highest level of education. The third category, high secondary education, will include people that have finished high school or vocational training of middle or high level ("grado medio" or "grado superior"). The last category would be college, which will include people with a university degree, a master or a doctorate.
- Outsourcing domestic work: would be a dummy variable that will take value one when there is domestic help in the family whether they live on the family house or not.
- Number of children: We will include four different variables in this category. We would include the total number of children in the household, a dummy variable that will take value 1 when there is a baby or toddler in the family below 2 years old, a continuous variable indicating the number of children younger than 9 years old in the family and, lastly, the total number of preteen and teenagers in the family, between 10 and 18 years old.
- Age: continuous variable that will include the age of each individual.

### 3.3. Descriptive analysis

In table 1 we show the summary statistics for our final sample. Regarding our dependent variable, the time use, we observe that men report that they spend more minutes per day than women in family time and couple time. Men report to spend 6 minutes more per day, on average, than women on family time, and 5 minutes more than women, on average, on couple time. For these two time uses men and women have to be together, so the reported minutes per day should be the same for men and women. From these results we could conclude that men overestimate the time spent with the family or the partner compared to women. The differences stay when considering the subsample of dual-earner couples. On the other hand, women report higher values for time spent with children and on non-family leisure time than men. Women spend 69 minutes more per day, on average, with children under 10 years old, and 16 minutes more per day, on average, with older children. The differences diminish when we consider only couples where both spouses work. In this case, women spent 36 minutes more per day on average than men with children under 10 years old and 13 minutes per day, on average, more with the older children. Regarding non-family leisure time, women spent 27 minutes per day more than men on average. This difference is reduced to 15 minutes per day when we consider only the couples where both spouses work.

Regarding the explanatory variable of work schedules we have a very different distribution for men and women. Most women work standard shifts, almost 33% of the sample is included in this work schedule. Whereas only 12% work split shift and 5% work the evening shift. For men the most common work schedule is the split shift. Almost 40% of men in our sample are working this shift. There are 28% of the men in our sample working a standard shift and only 5% are in an evening shift. There is also a big difference in the nonemployed categories. Whereas the people that report not working is similar for both genres, around 13%, women unemployment rate is much higher than men. Whereas only 14% of men in the sample are unemployed, 38% of women reported an unemployment status. This could be due to the fact that the roles of men and women are still, in some households, close to the traditional roles, where the mother stays at home taking care of the kids and the house and the father goes to the workplace. However, we also have to consider that during the time of this survey Spain was suffering the consequences of an economic crisis that has increased the unemployment rates, and could have made families to change their preferences among work, childcare and housework. During an economic crisis some unemployed

people stop seeking for a job after being searching for it many months, these workers are discouraged in the task of finding a job. We may expect that when people have children the decision to stop searching for a job is easier as they are useful at home taking care of the children and the housework, overall women.

For the three dummy variables controlling for the total work time, 15% of women and 3% of men work less than 6 hours. Only 1.5% of women and 14% of men work more than 10 hours. In our sample men have longer working days than women, on average. In society, normally women are the ones reducing their working days when having children. This could help to explain the results reported on our sample regarding the distribution among the three dummy variables controlling for total work time for men and women.

In our sample women are more educated than men as 29% have college or a higher level of education, while only 23% of men are in this circumstance. However the most reported level of education for both genres is high school, reported by 33% of women and 39% of men. Around 16% of the total sample reports having a level of primary education or lower.

For the household control variables, 12% of our sample outsourced domestic labor. In almost 24% of the households there is a child under 2 years old present. The average number of children is 1.81, the average number of children younger than 10 years old is 0.87 and the average number of children older than 9 is 0.74. Finally, in our sample men are 2.3 years older than women, on average.

#### **4. EMPIRICAL RESULTS**

In this section we are going to present the results obtained for the different estimation methods that we have used. As explained before there is an unclosed debate in the literature about which is the adequate econometric method of estimation when analyzing time use data (false zeros and the inability of performing two main different time-uses at the same time). Since there is not a common answer to which is the best method to use when analyzing this kind of data, we analyze the different methods available. Firstly, we present the results when we estimate separately the different time uses from each other and for each of the partners. The 3 methods are: Tobit model, OLS model and GLS with a Poisson-gamma distribution model. These three estimation methods

assume that time use decisions are not correlated. Then, we allow for correlation among the time use decisions and within household (between spouses) estimating jointly the 12 equations (6 time uses for each partner) with a SUR model and with a 3SLS. We will finish the section by reducing our sample to those households in which both partners have a paid work and estimate jointly the time use decisions by the SUR estimation method and the GLS with a Poisson-gamma distribution method and check if the results are robust.

#### **4.1. Separately estimation methods**

These methods do not consider that the 6 time-uses defined for men and women are correlated among them to do the estimation. They do the estimation as if each equation was not influenced by the others and as if they were not correlated.

##### *4.1.1. Tobit model*

The Tobit model is the usually implemented method when the researcher faces censored data. But when we find ourselves with data that, actually, what they have are what it is known as false zeros, the data is not really censored, so the results when using this method could be biased. In table 2 we show the results obtained when using this method.

Regarding the 1<sup>st</sup> hypothesis presented in the analytical framework subsection regarding family time use, we find evidence that supports it. Individuals working an evening or split shift and their spouses spend less family time than individuals working a standard shift and their spouses.

Regarding the results for parent-young children time we find supporting evidence for our 2<sup>nd</sup> hypothesis only for split shift workers and their spouses. Individuals with a split work schedule spend less time with children under 10 years old and their spouses spend more minutes per day with them. There is no evidence supporting this hypothesis for evening shift workers. In the case of the spouses being working an evening shift the hypothesis is only fulfilled for men; when a man's wife is working an evening shift the men spend 107.6 minutes more, on average, on parent-young children time than when the wife is working a standard shift.

Concerning the partner time we have not found evidence supporting our hypothesis that evening shift workers and their spouses spend less time in couple activities than do standard shift and split shift workers and their spouses. However, we do have supporting evidence for the split shift. Men

with a split work schedule and their wives spend less partner time than couples where the male partner is working a standard shift.

For our last time use, non-family time, we find evidence supporting our hypothesis in the case of women but not for men. Women working an evening shift spend more non-family time than those working a standard shift. Also when a woman's husband is working an evening shift instead of a standard shift then they will also be spending more non-family time. However, we cannot find supporting evidence in the case of men working evening shift or when their wives are the ones working the evening shift.

In relation with the hours that individuals work per day, when an individual works less than 6 hours (part time) he/she will spend more parent-young children time, partner time and non-family time. In the case of being working more than 10 hours (overwork), women will be spending fewer minutes in all time-use except for old kid time and partner time. Men working long hours will also be spending less family time in every time-use except for parent-young children time and kids time.

#### *4.1.2. OLS model*

As said above, some studies show that OLS may be preferred to Tobit model when we analyze time-use data. When the reported zeros are not real zeros, according to Stewart (2013) the Tobit models may generate biased estimates in certain circumstances, while OLS models generate unbiased estimates in all circumstances.

Nevertheless, Foster and Kalenkosky (2012) say that as long as some of the reported zeros are real zeros OLS estimator is still theoretically biased. Considering what we are trying to analyze in our study, and the definition of our time-uses and the subsamples that we are using (men and women with at least one child younger than 18 years old), we would expect that most reported zeros are in fact false zeros, as the individuals of our subsample are living with their kids and their partner most likely they are going to spend some of their leisure time with them. However, we could have some real zeros so we should bear in mind Foster and Kalenkosky's warning.

In table 3 we show the results of estimating each equation by OLS. The sign of the statistically significant coefficients, for the individuals and their spouse's work schedules, are the same as in

the Tobit model. Nevertheless, there is some discordance with respect to which coefficients are significant and which are not.

In the case of family time, now we do not find evidence supporting that fathers with a wife working split shift spend less time in family time than those men with a spouse working a standard shift.

For time spent with children under 10 years old, as using the Tobit model, we also find evidence supporting our 2<sup>nd</sup> hypothesis. Split shift workers spend less kid time and their spouses spend more minutes per day in this time-use. Also, once again, in the case of evening workers we only find evidence supporting that a man with a wife working an evening shift will be spending more time with their younger children than if the wife works a standard shift. However, we do not find any other supporting evidence for evening workers or their spouses.

Also, once again, as with the Tobit model, we do not get supporting evidence for our 3<sup>rd</sup> hypothesis for workers or their spouses with an evening shift. But we find evidence for fathers with a split working schedule; these individuals and their spouses spend less time doing activities as a couple than standard shift workers.

The results for the last time-use, the non-family leisure time, are similar to the ones obtained with the Tobit model. Once again we only find evidence for women. Women working the evening shift or women with a husband working the evening shift, spend more minutes per day in activities without any household members than those working standard or split shift or women with a husband working these shifts. This evidence supports part of the 4<sup>th</sup> hypothesis. We do not have any supporting evidence for males. The only evidence that we have for male partners is that those working a split shift spend less non-family time than those working standard shifts.

#### *4.1.3. GLS: Poisson-gamma distribution model*

Some studies, as Hammer (2012), argue that the Time Use data is not properly estimated with an OLS or Tobit model because these models assume homoskedasticity and this is an untenable assumption for this data. They also argue that these models are based on a normal distribution, what is not fulfilled in this data that have a large share of zeros and a monotone decreasing density. Considering these issues Hammer (2012) proposed a generalized linear model with a Poisson-gamma random component. This model is flexible enough to provide a reasonable fit for

most distributions and, in particular, also for those with a lot number of zero observations and a heavily skewed distribution. The results for this model are shown in table 4

The first hypothesis is fulfilled, both men and women spend less family time when they are working an evening or split shift as well as when their spouses are the ones working those hours than when the individual or their spouse are working standard shifts.

Regarding the time spend with children under 10 years old, once more both parents spend less time with their kids when they work a split shift than when they work a standard shift but we do not find supportive evidence when the individual works an evening shift. With this model we find evidence that supports the 2<sup>nd</sup> hypothesis for both genders and both work schedules when the spouse is the one working an evening or a split shift. We did not get supportive evidence for this hypothesis using Tobit or OLS estimation methods for females whose husband worked the evening shift.

Once again we cannot find evidence to support the 3<sup>rd</sup> hypothesis regarding partner time which says that evening shift workers and their spouses spend fewer minutes per day in this time-use than do standard and split shift workers and their spouses.

In the case of non-family time we find supporting evidence for the hypothesis in regard to mothers but not for the case of males, being the estimated effect of the same sign that the one found with the previous models.

From these three first estimation methods, which have not considered correlation among the different time-use equations we can conclude the following. Our prior hypothesis for family time is satisfied. Evening and split shift workers and their spouses spend less time with their family. The hypothesis for time spent with children under 10 years old is satisfied for those working split shift. In this case workers will spend less time with their children while the spouse will spend more time with the children. However we did not find evidences supporting that there is a significance difference between the minutes per day that evening shift workers spend with children and the minutes per day spent by standard shift workers with children. There was no evidence supporting that evening workers and their spouses spend less time doing activities as a couple. For the last time-use defined, we find evidence supporting that for women working an evening shift and their

spouses the non-family leisure time increases. On the other hand, we did not find any evidence for men working an evening shift.

## **4.2. Jointly estimation methods**

In this subsection we are going to present the main results when estimating jointly the time use decisions within household. We allow now for correlation among the decisions taken by both spouses on their time uses. This leads to estimate a 12 equations model simultaneously. With the SUR model we allow for correlation among the error terms of the 12 equations. Using the 3SLS model we else concede that each time-use depends on the others by including other time uses as explanatory variables in each of the equation

### *4.2.1.SUR model*

As a time constraint is present in our data, individuals only have 24 hours per day, and two main different activities cannot be undertaken at the same interval, each time-use may be influenced by the other time-uses, so we will assume that they are correlated. For satisfying this assumption we can use the seemingly unrelated model. Using this method we are going to compare the results with the ones obtained when we assumed that each time-use equation was independent from the others, that is, that they were not correlated.

Gracia and Kalmijn (2015) estimate the effect of different work schedules in the time spent with different household members defined by four mutually exclusive time-use activities (they only had information for children under 10 years old, there so, they did not include time spent with children above 9 years old or time spent with young and old children simultaneously). They run linear seemingly unrelated regressions separately for men and women. We extend their work by allowing interrelation between the time use decisions of both spouses, and by including the time spent with children of 10 years or older and the time spent with young and old children simultaneously. We treat the dependent time-use activities as interrelated not only among them within a particular spouse, as Gracia and Kalminj (2015) do, but also among spouses.

In table 5 we show the results of estimating the system of equations by SUR method. In the case of family time we do not find supporting evidence when women are working split shift. There are not supporting evidence supporting that they or their spouses spend less time on family activities. However, when individuals are working evening shifts and when the men are the ones with a split

shift we found evidence supporting that they spend less family time than their counterparts with a standard shift.

Regarding time spent with children under the age of 10, we get the same results that when we used Tobit and OLS models. We find supporting evidence when men or women work a split shift. They spend less time with their children, on average, while their spouses spend more time with the children, as was expected in our 2<sup>nd</sup> hypothesis. For evening shift workers we only find supporting evidence when a woman is the one working this shift. In this case her husband will spend more time with the children, but there is no supporting evidence for the time that she will spend with her children. There is no supporting evidence for when the man is the one working an evening shift, neither for his time spent with his children, nor for his wife time spent with the children.

Once again we do not have any supporting evidence for evening workers and the time they spend with their partner. However, also using this model, we can conclude that male split shift workers and their wives spend less partner time than those working a standard shift and their wives.

The results that we found for the 4<sup>th</sup> hypothesis are also the same than when we have used the estimation methods that did not consider the correlation among the different time uses and among spouses. We find supporting evidence for women but not for men. The evidence for women matches our previous hypothesis that evening workers and their spouses spend more leisure time with non-family members. However, we cannot conclude anything for the non-family leisure time when men are the ones working an evening shift, neither for their use of non-family leisure time nor their wife non-family time.

#### *4.2.2.3SLS model*

3-stage least squares method includes some of the endogenous variables as explanatory variables in the other estimation equations. We decide which endogenous variables to include in each equation taking into consideration which is our aim and the requirements that are needed in order that the system of equations is identified. We include as explanatory variable for each equation the spouse's same time use (e.g. if we are estimating the parent-child time for women equation we will include the parent-child time of men as an explanatory variable).

Regarding the evidences to support our previous hypotheses, we do not find anything supporting our first hypothesis about how family time decreases for the workers and their spouses when they have an evening or split shift. This hypothesis was satisfied in most of the cases of the previous models used, so we could think that the effect decreases once we control for the coordination among the spouses.

When studying the results for our second hypothesis regarding children under 10 years old we find supporting evidence for when the individual have a spouse working a split shift. In this case the spouse will be spending more time with the children under 10 years. However, we cannot say anything for individuals working a split shift. In the case of the evening shift we only find supporting evidences when the men has a wife in this situation. In this case he will be spending more time with the younger children. We do not find supporting evidences for when the men is the one working an evening shift.

Once again we do not find supporting evidence for the hypothesis regarding partner time, we cannot relate working an evening shift with spending more or less time with your partner.

In the case of non-family leisure time we do only find supporting evidence when women's husband works an evening shift. In this case women spend more time in non-family leisure which coincides with our prior results.

For the two different methods that we have used when analyzing the equations assuming correlation among them we can conclude the following. Using the SUR estimation method the results that we have obtained were very similar in terms of significance and direction of the effect to the ones obtained when we have not considered correlation. However, when we have used the 3SLS the conclusions that we have reached from the results obtained are different to the ones obtained when not assuming correlation. We did not found evidence supporting the diminution on family time when working an evening or split shift. Again we did not find results for the decline of parent-child time when working the split shift. This was found in the 3 previous models and when using the SUR model. Moreover we do not find any evidence for the non-family leisure time when using the 3SLS model, whereas with the other models we found evidence supporting that women working an evening shift and their spouses spend more non-family leisure time.

It is important to mention that none of the methods finds evidences supporting all the hypotheses but none of them leads to results that contradict them. All of our significance coefficients signs are the ones that we expected prior to do the study.

### **4.3. Dual-earner couples**

As there are large differences in the unemployment rate between women and men in our sample, we have considered that studying the effect of the different work schedules among couples where both spouses are working could show relevant insights.

Therefore we have created a subsample that consists of 495 couples where none of the spouses is unemployed or not working the reference day, that is both work.

We have used a GLS Poisson-gamma distribution model and a SUR model with this subsample of parents to study if we get any different result to those obtained when non-employed parents are included.

#### *4.3.1. GLS: Poisson-gamma distribution model and SUR model for dual-earner workers*

The results found when using this new subsample (table 7 and table 8) with these two estimation methods are similar to the ones obtained with the previous sample for family time, parent-child time and non-family leisure time.

However with this sample we find supporting evidence for the hypothesis regarding time spent with the partner. This did not happen for any of the methods used with the previous sample. Our results show that men working an evening shift or a split shift and their spouses spend less partner time.

## **5. CONCLUSION**

Our study contributed to the literature by using the most recent Spanish time-use data of 2009-2010 to analyze the links between work schedule and parents' participation in family, parent-child, couple, and non-family leisure activities. Gracia and Kalmijn (2015) did a similar study using data from the STUS 2002-2003. The survey has been improved since 2002. The STUS 2002-2003 does not allow separating the activities that the individuals do with their couple from those that do with

their children above 9 years old. For this reason, they only consider those families with children under 10 years old, dropping the families where at least one child above the age of 9 was present. In the newest version of the data we can divide the time that the individual spends with the partner from the time spent with the kids older than 9 years. This has allowed us to include all the families with at least one child under 18 years old in our sample, even including those families where a child was above 18 years of age. We believe this has improved the results found as they could be expanded to a larger part of the population as they are less restricted. The previous results were only for families where young children were present, whereas now we have found evidence for families with children of all ages.

This has also made possible to include two new time uses that were not included in Gracia and Kalmijn (2015) the parent-old kid time and the parent-kids time. The first one includes the activities that the individual does with their children above 9 years old. The second one includes the time that the individual spend with children of both groups of age, under 10 years old and over, at the same time.

Another difference from Gracia and Kalmijn (2015) is the estimation method used. They used a seemingly unrelated regression model to study the link between work schedules and time uses whereas we are using 5 different methods. Even when we have used the seemingly unrelated regression model we have defined differently the model. They consider that the time use of men and women were not correlated among them estimating two independent systems, one for the equations of women and the other one for the equations of men. Whereas, in this paper, we have assumed that spouses are taken simultaneously the decisions. To consider this correlation among the spouses we have estimated a unique system of equations for women and men jointly.

Our study has four main findings. First, our results show that the split shift has a negative association with family time and parent child time, two activities that improve the relationship among family members and improve the wellbeing of children. It has a stronger influence in the time spent with children under 10 years old, but it also has a negative impact on the time that women working the split shift spend with old children and with both age group children at the same time. This results show that the split shift is not only a family-unfriendly work schedule but also strongly child-unfriendly.

Second, we find that the evening shift has a negative effect on family time. By contrast, we did not find evidence for parent-child time being negatively associated with the evening shift. These results are consistent with the results obtained by Gracia and Kalmijn (2015). We did not find in any of the estimation methods evidence that supports that the evening shift has a negative effect on couple time. These results are not consistent with Gracia and Kalmijn (2015). They found that evening workers were substantially less active in couple activities. Nevertheless, when using the subsample of dual-earner couples our results for couple time show the same effect direction that the ones obtained by Gracia and Kalmijn (2015).

Third, we find that parents engage in parent-child activities with children under 10 years old when their spouse is working the split shift. We find similar results when women work an evening shift. In this case men will spend more time in parent-child activities with children under 10. These results are consistent with the idea that spouses decisions are taken simultaneously, as depending on the spouses' work schedule the individual will decide his/her time spent with children.

Fourth, we find that the effect that working an evening or split shift has on women's parent-child time is smaller than for men. The opposite happens with non-family leisure time.

With these results we could conclude that this study has important public policy implications. The split shift is making more difficult for dual-earner couples to have a work-life balance. This could be one of the reasons explaining the low female labor force participation rates in Spain in comparison with other European countries. Women could decide only to accept a job when they would have a standard work schedule as their spouse is already working a split shift. Couples would need someone to be with their children after school if the women would accept a job with a split work schedule, as none of the spouses would be at home when the children arrive from school. This makes women to have less job opportunities. Moreover, when studying the private sector, in some cases, women will only apply for the less skilled jobs as in higher positions normally the work schedule is worst for a work-life balance as working days are longer.

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## 7. FIGURES AND TABLES

Figure 1: Activity rate of women and men 2002-2016

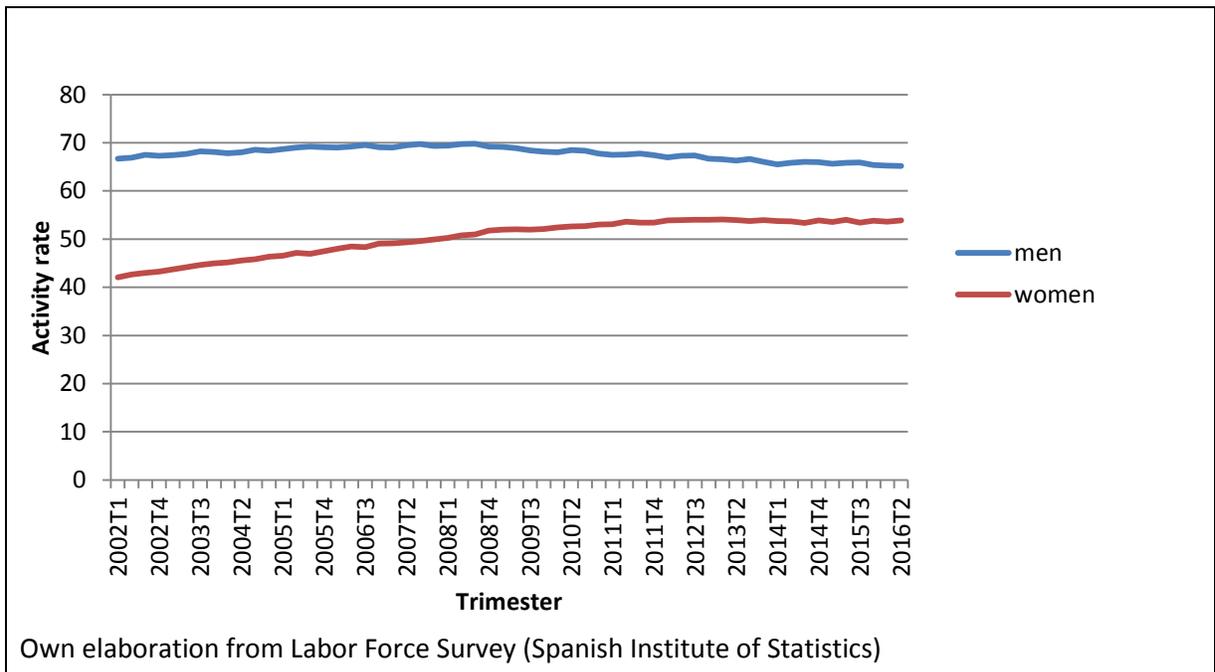
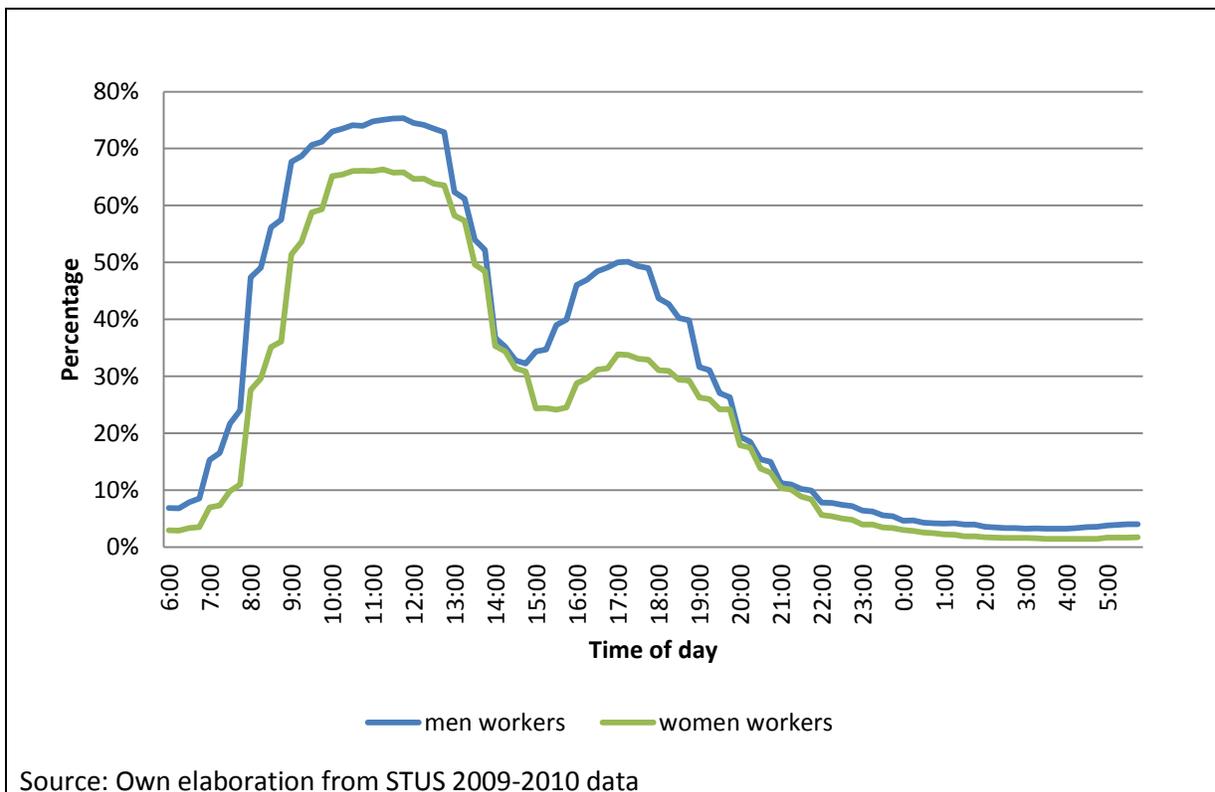


Figure 2: Percentage of men and women engaged in paid work by hour of the day



**Table 1: Summary Statistics: Means and SD for the whole sample and only for when both parents are working**

VARIABLES	MOTHERS				FATHERS			
	Mean	SD	Workers Mean	SD	Mean	SD	Workers Mean	SD
Family time (minutes per day)	105.52	126.97	73.19	82.34	111.30	128.96	78.42	82.95
Time with children	12.45	48.41	10.28	36.80	3.25	20.26	2.99	15.39
Time only with kids ≤ 9 years	105.74	148.84	75.52	98.16	35.68	80.66	39.60	74.74
Time only with old kids > 9 years	33.60	74.15	25.27	52.14	17.28	52.15	13.21	36.76
Time with partner	68.81	91.19	51.62	64.18	74.21	97.02	56.10	66.51
Non family leisure time	157.61	150.69	103.80	97.74	130.75	151.21	88.55	88.53
Part time (< 6 hours)	0.147		0.271		0.034		0.042	
Overwork (> 10 hours)	0.014		0.028		0.138		0.174	
Full time	0.343		0.701		0.559		0.784	
Standard work schedule	0.325		0.648		0.277		0.422	
Evening work schedule	0.047		0.093		0.045		0.046	
Split work schedule	0.118		0.251		0.396		0.515	
Night work schedule	0.004		0.008		0.013		0.016	
Unemployed	0.377				0.141			
No working	0.128				0.128			
Primary education	0.157		0.093		0.17		0.115	
Low secondary	0.223		0.141		0.235		0.184	
High secondary	0.327		0.356		0.39		0.396	
College	0.292		0.410		0.227		0.305	
Domestic service	0.116		0.192		0.116		0.192	
Child ≤ 2 years	0.238		0.232		0.238		0.232	
Number children	1.810		1.749		1.810		1.749	
Num. children ≤ 9 years	0.875		0.848		0.875		0.848	
Num. children 10-18 years	0.737		0.739		0.737		0.739	
Age	40.252	6.48	40.192	6.179	42.581	6.97	42.101	6.559
N	1222		495		1222		495	

Data from STUS 2009-2010.

**Table 2: TOBIT. Parent's minutes per day in six activities, by individual and spouse's work schedule.**

	Family time		Kids time		Young kid time (<10)		Old kid time(≥10)		Partner time		Non family time	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
<b>Own work schedule</b>												
Unemployed	34.22*** (10.50)	46.48*** (15.81)	37.28 (26.97)	68.11** (33.05)	132.6*** (14.61)	84.02*** (17.68)	52.78*** (14.89)	71.50*** (22.13)	36.29*** (9.638)	54.81*** (14.23)	145.5*** (11.48)	205.7*** (17.28)
No working	66.52*** (16.38)	103.3*** (17.22)	-27.35 (44.10)	87.86** (34.83)	135.9*** (18.81)	70.61*** (19.55)	32.80 (19.97)	54.45** (21.51)	13.06 (13.82)	75.48*** (15.37)	103.3*** (15.82)	122.0*** (18.52)
Evening shift	-86.93*** (17.93)	-114.8*** (18.90)	-123.2** (61.47)	-6.116 (50.35)	-12.92 (21.88)	1.146 (24.42)	-15.83 (25.91)	29.27 (27.98)	-15.28 (15.39)	-8.581 (18.28)	35.92** (14.97)	19.58 (17.84)
Split shift	-22.13* (12.74)	-36.61*** (9.203)	-61.34* (35.72)	18.55 (25.80)	-26.30* (15.69)	-63.75*** (13.25)	-48.13*** (17.03)	-1.767 (15.31)	-9.453 (11.47)	-26.99*** (9.101)	-36.33*** (11.04)	-43.34*** (9.452)
Night shift	-166.2*** (54.26)	-9.713 (31.53)	169.8* (96.63)	76.24 (73.41)	60.32** (24.01)	6.996 (37.69)	42.59 (92.44)	21.90 (51.73)	-56.36 (48.78)	-21.90 (22.94)	55.39 (49.74)	-9.292 (27.09)
<b>Spouse's work schedule</b>												
Unemployed	22.36 (14.98)	24.73** (10.72)	-73.99* (38.76)	-91.97*** (31.24)	-81.55*** (18.00)	-101.5*** (15.50)	-49.67** (20.55)	-58.20*** (16.05)	32.64** (12.93)	25.58** (10.20)	-6.798 (15.29)	-19.31* (11.73)
No working	96.29*** (17.06)	55.98*** (16.48)	-64.87 (40.07)	-146.2*** (48.60)	-126.2*** (21.46)	-83.15*** (19.61)	-53.46** (21.74)	-32.03 (22.97)	56.53*** (14.06)	11.88 (13.69)	-71.97*** (15.17)	-57.20*** (16.49)
Evening shift	-112.4*** (18.24)	-59.74*** (18.16)	31.05 (52.89)	-76.41* (45.09)	39.28 (25.20)	107.6*** (23.21)	31.39 (28.30)	12.17 (27.55)	-10.82 (18.02)	-7.837 (17.44)	43.23** (19.51)	-12.88 (18.56)
Split shift	-40.84*** (9.103)	-27.24** (13.51)	23.20 (24.73)	-10.43 (28.99)	54.39*** (11.85)	70.31*** (16.14)	10.47 (14.76)	14.98 (16.46)	-36.58*** (8.605)	0.537 (11.88)	21.60** (10.26)	-11.16 (13.25)
Night shift	-0.442 (30.63)	-61.49 (46.67)	39.13 (92.45)	-681.3 (0)	-34.95 (43.91)	67.29 (64.49)	-18.33 (32.74)	71.26 (63.30)	-53.57** (22.25)	0.208 (53.00)	33.41 (31.34)	-92.05** (43.81)
<b>Control variables</b>												
<i>Own</i>												
Part time	15.84 (11.59)	34.68 (23.40)	48.34 (30.08)	-750.7 (0)	67.23*** (14.42)	46.67** (20.44)	21.01 (15.89)	29.24 (26.87)	18.82* (10.37)	36.39** (18.49)	42.33*** (11.28)	45.49** (18.51)
Overwork	-91.56** (35.98)	-56.17*** (10.51)	-135.0* (69.27)	-23.38 (30.03)	-136.8** (56.21)	-22.49 (17.64)	-33.06 (46.11)	-89.58*** (22.48)	-28.57 (33.35)	-22.83** (10.32)	-77.84** (38.45)	-50.70*** (11.42)
Low secondary educ.	-10.62 (16.04)	-1.801 (14.93)	-4.162 (35.35)	-23.25 (32.37)	3.987 (20.09)	20.31 (19.20)	24.37 (19.12)	-11.35 (20.74)	18.67 (14.20)	27.78** (13.05)	10.35 (16.13)	-5.865 (15.48)
High secondary educ.	5.857 (15.45)	5.531 (13.84)	-13.13 (34.06)	-12.32 (29.40)	0.220 (19.30)	34.06* (18.35)	11.76 (17.46)	14.55 (18.34)	17.70 (13.25)	20.16 (12.34)	0.168 (15.21)	-2.261 (14.87)
College educ.	-13.85 (16.38)	23.79 (15.56)	-28.48 (38.84)	-16.02 (31.88)	29.24 (21.32)	25.49 (20.35)	4.905 (19.64)	23.27 (21.27)	32.65** (14.20)	16.82 (14.26)	5.425 (16.42)	-5.731 (17.08)
Age	-3.611*** (0.891)	-3.168*** (0.797)	1.000 (2.290)	-3.106 (1.966)	-5.695*** (1.128)	-2.704*** (0.948)	3.267*** (1.180)	3.446*** (1.190)	1.267* (0.718)	0.693 (0.697)	4.184*** (0.857)	3.514*** (0.868)

	Family time		Kids time		Young kid time (<10)		Old kid time(≥10)		Partner time		Non family time	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
<i>Spouse</i>												
Part time	41.64*	24.37**	-26.36	-20.99	-59.09**	-24.31	-41.22*	-44.32**	17.47	7.949	9.428	-0.0269
	(22.00)	(11.73)	(56.12)	(28.53)	(26.58)	(15.00)	(24.12)	(19.22)	(18.14)	(11.62)	(22.21)	(13.04)
Overwork	-61.34***	-56.20*	-10.04	21.36	34.82**	48.96	3.934	36.71	-14.16	-39.92	20.58	-39.87
	(10.92)	(32.82)	(29.85)	(49.99)	(15.91)	(39.15)	(16.21)	(36.13)	(10.52)	(35.20)	(13.65)	(41.93)
Low secondary educ.	19.45	8.182	-11.50	-24.22	-6.352	-4.324	-16.23	5.445	7.257	18.43	-25.71*	-33.05*
	(14.50)	(16.70)	(32.56)	(39.76)	(17.53)	(20.76)	(18.62)	(20.90)	(12.63)	(13.86)	(14.02)	(17.27)
High secondary educ.	30.07**	9.966	-14.90	12.18	-2.577	-4.569	4.125	-2.333	8.746	20.85	-21.82	-25.75
	(13.59)	(15.81)	(27.88)	(30.41)	(17.02)	(19.84)	(17.51)	(20.10)	(12.28)	(13.40)	(13.28)	(15.77)
College educ.	45.45***	-4.427	17.21	31.41	-12.79	21.72	-14.54	-27.77	3.734	32.92**	-15.63	3.371
	(14.82)	(17.07)	(37.37)	(33.42)	(19.29)	(21.62)	(20.81)	(20.95)	(13.47)	(14.30)	(15.40)	(17.14)
<i>Household</i>												
Domestic service	-2.901	-4.370	-13.37	-26.12	12.40	0.834	-30.38*	-12.07	11.51	16.73	19.99	-6.551
	(12.67)	(12.23)	(30.21)	(29.50)	(15.74)	(16.27)	(16.47)	(19.35)	(10.64)	(10.90)	(13.33)	(12.86)
Child aged 0-2	20.79*	29.26***	-122.8***	-122.9***	70.66***	15.40	-11.37	-22.78	-22.58**	-29.46***	-50.41***	-13.96
	(11.51)	(11.27)	(34.35)	(38.03)	(12.48)	(12.17)	(23.75)	(23.75)	(9.486)	(10.37)	(11.95)	(12.26)
Total child 0-9	7.389	10.36	167.9***	98.86***	90.29***	64.81***	-92.41***	-60.20***	-11.40*	-10.41*	-22.43***	-6.984
	(6.699)	(6.476)	(17.88)	(16.30)	(7.862)	(7.783)	(15.73)	(15.27)	(5.877)	(6.236)	(6.942)	(7.132)
Total child 10-18	-12.35*	-4.941	149.4***	98.64***	-87.37***	-61.48***	71.38***	47.87***	-7.817	-6.127	12.86*	2.563
	(7.462)	(6.839)	(17.12)	(15.38)	(11.23)	(12.11)	(8.763)	(9.302)	(5.938)	(6.112)	(7.379)	(7.775)
Constant	201.4***	194.6***	-528.6***	-239.9**	133.7**	20.44	-225.7***	-255.9***	-26.15	-20.00	-64.21	-18.91
	(43.05)	(41.68)	(117.3)	(98.00)	(53.72)	(48.19)	(59.44)	(66.78)	(34.47)	(36.96)	(41.37)	(44.92)
Sigma	130.8***	134.3***	188.0***	139.9***	143.3***	127.3***	133.3***	132.2***	114.8***	121.7***	138.6***	143.1***
	(4.373)	(4.234)	(14.44)	(16.39)	(5.122)	(6.146)	(7.431)	(11.51)	(5.454)	(5.591)	(3.814)	(4.629)
Observations	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222

Standard errors in parentheses. Reference group: individual working standard shift, full time and with primary education with a spouse also working standard shift, full time and with primary education.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 3: OLS. Parent's minutes per day in six activities, by individual and spouse's work schedule.**

	Family time		Kids time		Young kid time (<10)		Old kid time(≥10)		Partner time		Non family time	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
<b>Own work schedule</b>												
Unemployed	28.39*** (7.993)	40.20*** (13.26)	7.540** (3.450)	5.331* (2.761)	79.65*** (7.797)	33.02*** (8.956)	23.45*** (5.876)	25.25*** (7.295)	26.21*** (6.414)	45.39*** (10.65)	137.2*** (10.07)	189.9*** (16.00)
No working	59.69*** (14.07)	96.22*** (15.47)	0.965 (4.048)	4.417* (2.673)	94.45*** (12.00)	29.32*** (9.404)	16.78*** (6.316)	15.69*** (5.938)	12.98 (10.02)	61.92*** (12.85)	99.42*** (13.84)	112.4*** (16.64)
Evening shift	-55.54*** (9.717)	-78.70*** (9.666)	-3.636 (3.859)	-0.327 (1.296)	-13.83 (11.41)	-1.306 (8.306)	-6.984 (6.526)	6.787 (7.843)	-9.080 (8.671)	-5.783 (12.13)	29.33** (13.14)	14.82 (13.72)
Split shift	-14.36* (8.273)	-36.84*** (6.937)	-6.747** (2.655)	0.647 (1.117)	-19.49*** (7.453)	-26.60*** (4.449)	-12.97*** (4.654)	-1.600 (2.713)	-6.336 (6.636)	-18.32*** (5.599)	-35.17*** (8.885)	-37.09*** (6.983)
Night shift	-74.54** (31.36)	-8.828 (24.06)	52.25 (36.99)	5.611 (7.868)	-7.606 (15.41)	11.38 (18.27)	-2.803 (14.90)	7.077 (10.87)	-26.37** (13.07)	-22.57* (12.28)	34.97 (44.52)	-10.10 (20.18)
<b>Spouse's work schedule</b>												
Unemployed	21.49* (12.09)	25.05*** (8.269)	-5.580 (3.516)	-3.338 (2.158)	-36.62*** (9.007)	-26.75*** (5.107)	-17.27** (7.124)	-10.16** (3.942)	26.86*** (9.973)	21.26*** (6.871)	-1.852 (13.29)	-12.69 (9.627)
No working	89.67*** (15.37)	51.84*** (14.31)	-3.764 (4.012)	-5.370*** (1.888)	-67.36*** (11.00)	-29.36*** (7.483)	-20.17*** (6.447)	-1.367 (7.419)	48.34*** (11.68)	8.271 (10.08)	-63.16*** (12.88)	-47.32*** (13.58)
Evening shift	-79.26*** (10.45)	-41.38*** (11.60)	10.77 (11.01)	-2.051 (2.414)	23.33 (16.35)	66.54*** (15.12)	16.44 (13.83)	7.423 (7.074)	-4.918 (12.05)	-1.558 (10.80)	34.09* (18.58)	-17.51 (15.70)
Split shift	-41.17*** (6.944)	-11.87 (8.610)	3.495 (3.189)	-2.042 (2.061)	42.74*** (7.178)	34.00*** (9.123)	1.030 (5.657)	-1.779 (4.242)	-23.12*** (5.354)	-2.520 (7.267)	19.24** (8.946)	-14.39 (10.96)
Night shift	-4.884 (24.45)	-54.38* (29.51)	8.284 (14.24)	-5.151** (2.030)	-2.779 (25.15)	51.11 (49.74)	-1.735 (11.49)	-3.752 (5.631)	-32.39*** (8.447)	-6.473 (27.04)	36.53 (25.36)	-65.30*** (18.02)
<b>Control variables</b>												
<i>Own</i>												
Part time	12.50 (8.533)	24.61 (21.05)	4.010 (3.602)	-2.300* (1.214)	30.27*** (7.593)	17.98 (10.96)	4.715 (4.239)	-0.322 (4.236)	9.524 (6.729)	23.56* (13.93)	36.62*** (9.626)	35.02** (15.03)
Overwork	-55.08*** (15.69)	-34.33*** (6.010)	-4.585 (4.172)	-1.926* (0.998)	-23.32 (23.81)	-4.552 (3.960)	-7.681 (9.471)	-7.767*** (2.561)	-8.321 (17.55)	-14.11*** (5.055)	-25.94 (23.49)	-24.00*** (6.275)
Low secondary educ.	-8.507 (12.15)	-3.971 (11.35)	-4.391 (6.112)	-1.690 (1.409)	4.415 (10.74)	0.116 (6.971)	10.06 (7.913)	1.115 (5.234)	9.065 (10.20)	17.75** (8.950)	5.015 (14.57)	-3.462 (12.86)
High secondary educ.	5.312 (11.74)	-0.162 (10.70)	-4.103 (5.782)	-0.952 (1.490)	3.883 (10.67)	1.976 (7.159)	7.888 (6.841)	5.568 (4.611)	6.560 (9.045)	12.77 (8.243)	-1.711 (13.43)	-0.355 (12.53)
College educ.	-11.62 (12.59)	17.67 (12.12)	-5.324 (5.981)	-1.031 (1.658)	15.08 (11.91)	-5.255 (8.411)	7.645 (7.233)	10.20* (5.264)	19.28** (9.749)	9.550 (9.809)	1.946 (14.27)	-2.530 (14.24)

	Family time		Kids time		Young kid time (<10)		Old kid time(≥10)		Partner time		Non family time	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Age	-2.271*** (0.698)	-2.249*** (0.622)	-0.210 (0.263)	-0.138 (0.114)	-2.462*** (0.657)	-0.789** (0.365)	0.546 (0.401)	0.537** (0.246)	1.145** (0.518)	0.370 (0.495)	3.673*** (0.755)	2.716*** (0.725)
<i>Spouse</i>												
Part time	30.23 (20.01)	20.50** (9.271)	2.996 (7.617)	-1.067 (2.347)	-34.14** (16.09)	-12.19* (7.402)	-10.67 (7.554)	-7.745** (3.722)	12.51 (13.14)	3.163 (7.712)	1.643 (20.37)	-0.0305 (10.64)
Overwork	-31.58*** (6.195)	-39.61** (17.73)	1.446 (5.402)	8.551 (9.346)	28.54** (11.35)	43.82 (28.84)	-1.320 (6.317)	18.93 (13.70)	-5.518 (5.354)	-11.03 (18.53)	17.98 (12.57)	-14.36 (29.93)
Low secondary educ.	9.528 (10.70)	6.412 (12.93)	5.766 (5.306)	-0.851 (1.750)	3.002 (10.07)	3.083 (6.745)	-5.830 (6.837)	-1.816 (6.170)	1.291 (8.921)	10.67 (9.585)	-20.09 (12.59)	-27.82* (14.43)
High secondary educ.	15.14 (10.15)	8.543 (12.17)	1.975 (3.724)	-0.226 (1.717)	0.597 (9.706)	2.843 (7.004)	0.751 (6.706)	-2.186 (5.854)	4.522 (8.513)	12.56 (8.920)	-15.22 (11.85)	-30.35** (13.37)
College educ.	29.60*** (11.22)	-5.158 (13.39)	2.514 (4.260)	2.040 (2.371)	-6.715 (11.16)	13.88 (9.127)	-3.843 (7.236)	-9.050 (5.599)	-1.552 (9.338)	19.66** (9.745)	-12.42 (13.77)	-3.990 (14.66)
<i>Household</i>												
Domestic service	-1.728 (10.16)	-5.680 (9.946)	0.901 (3.348)	-3.073** (1.466)	4.111 (9.536)	9.316 (8.098)	-6.151 (3.956)	-1.854 (3.589)	5.214 (7.238)	10.52 (7.493)	20.66* (11.53)	-4.340 (10.28)
Child aged 0-2	19.58** (9.939)	27.32*** (9.841)	12.48*** (3.297)	-4.006*** (1.528)	74.64*** (10.31)	11.88* (6.573)	0.787 (3.180)	0.872 (2.075)	-14.36** (6.353)	-20.27*** (7.054)	-40.93*** (9.742)	-7.355 (9.613)
Total child 0-9	6.264 (5.484)	5.765 (5.281)	20.71*** (2.819)	4.270*** (1.023)	46.13*** (5.423)	17.51*** (3.517)	-18.70*** (2.785)	-9.540*** (1.840)	-10.13** (4.029)	-9.491** (4.364)	-21.56*** (5.805)	-7.954 (5.847)
Total child 10-18	-9.600* (5.632)	-3.542 (5.163)	20.58*** (3.346)	4.452*** (1.467)	-31.18*** (5.053)	-13.74*** (2.895)	23.18*** (3.712)	7.381*** (2.568)	-6.548 (4.143)	-3.892 (4.165)	10.26 (6.811)	2.240 (6.645)
Constant	177.2*** (34.39)	182.4*** (32.99)	-11.99 (13.16)	5.101 (5.773)	113.3*** (32.27)	64.46*** (20.54)	1.164 (17.13)	-3.095 (11.75)	16.56 (23.85)	35.71 (25.11)	-29.87 (35.83)	30.35 (37.08)
Observations	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222
R-squared	0.290	0.269	0.123	0.052	0.539	0.320	0.229	0.143	0.137	0.145	0.327	0.365

Standard errors in parentheses. Reference group: individual working standard shift, full time and with primary education with a spouse also working standard shift, full time and with primary education.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 4: Generalized least squares with a Poisson-gamma random component. Parent's minutes per day in six activities, by individual and spouse's work schedule.**

	Family time		Kids time		Young kid time (<10)		Old kid time(≥10)		Partner time		Non family time	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
<b>Own work schedule</b>												
Unemployed	0.309*** (0.083)	0.305*** (0.096)	0.470* (0.282)	1.350*** (0.484)	0.890*** (0.084)	0.728*** (0.140)	0.525*** (0.146)	1.061*** (0.243)	0.376*** (0.093)	0.526*** (0.108)	0.851*** (0.066)	1.001*** (0.074)
No working	0.490*** (0.098)	0.556*** (0.082)	0.052 (0.454)	1.432*** (0.547)	0.875*** (0.092)	0.710*** (0.165)	0.451** (0.201)	0.817*** (0.266)	0.18 (0.130)	0.624*** (0.110)	0.702*** (0.090)	0.742*** (0.091)
Evening shift	-0.853*** (0.175)	-1.228*** (0.209)	-0.705 (0.655)	-0.151 (0.815)	-0.163 (0.136)	-0.135 (0.291)	-0.55 (0.357)	0.551 (0.390)	-0.191 (0.173)	-0.0828 (0.187)	0.238** (0.10)	0.146 (0.116)
Split shift	-0.265** (0.114)	-0.372*** (0.069)	-1.240*** (0.447)	0.388 (0.477)	-0.218* (0.112)	-1.033*** (0.146)	-0.592*** (0.193)	-0.238 (0.225)	-0.151 (0.129)	-0.308*** (0.091)	-0.377*** (0.092)	-0.456*** (0.076)
Night shift	-1.343*** (0.517)	-0.0762 (0.240)	1.573*** (0.523)	1.595 (1.012)	0.529*** (0.140)	0.0973 (0.330)	0.131 (1.116)	0.409 (0.595)	-1.543** (0.679)	-0.417 (0.254)	0.138 (0.343)	-0.088 (0.202)
<b>Spouse's work schedule</b>												
Unemployed	0.176* (0.098)	0.259*** (0.081)	-0.592 (0.427)	-1.017* (0.575)	-0.457*** (0.124)	-1.188*** (0.161)	-0.518** (0.231)	-0.614*** (0.198)	0.326*** (0.114)	0.286*** (0.092)	0.00342 (0.080)	-0.106 (0.069)
No working	0.512*** (0.083)	0.424*** (0.098)	-0.306 (0.494)	-2.801*** (0.798)	-0.743*** (0.157)	-0.833*** (0.199)	-0.656*** (0.226)	-0.227 (0.348)	0.503*** (0.111)	0.0996 (0.122)	-0.431*** (0.099)	-0.364*** (0.103)
Evening shift	-1.168*** (0.219)	-0.507*** (0.162)	0.800* (0.469)	-0.91 (0.908)	0.352*** (0.133)	0.929*** (0.156)	0.286 (0.232)	0.416 (0.297)	-0.0809 (0.188)	-0.0357 (0.178)	0.183* (0.102)	-0.128 (0.125)
Split shift	-0.439*** (0.072)	-0.204* (0.111)	0.45 (0.273)	-0.346 (0.562)	0.359*** (0.068)	0.656*** (0.129)	0.076 (0.148)	0.0205 (0.212)	-0.411*** (0.091)	-0.0561 (0.120)	0.137** (0.057)	-0.0886 (0.086)
Night shift	-0.0177 (0.233)	-0.676** (0.279)	0.665 (0.734)	-19.59*** (0.751)	-0.188 (0.296)	0.468* (0.247)	-0.216 (0.314)	0.425 (0.861)	-0.711*** (0.223)	-0.226 (0.611)	0.185 (0.149)	-1.371*** (0.380)
<b>Control variables</b>												
<i>Own</i>												
Part time	0.166* (0.091)	0.206 (0.146)	0.439 (0.311)	-18.00*** (0.440)	0.486*** (0.087)	0.274 (0.191)	0.0731 (0.173)	-0.129 (0.341)	0.139 (0.113)	0.313* (0.165)	0.263*** (0.080)	0.276** (0.114)
Overwork	-1.379*** (0.345)	-0.637*** (0.10)	-0.762 (0.739)	-1.022* (0.530)	-0.827 (0.505)	-0.36 (0.258)	-1.112* (0.596)	-1.013** (0.424)	-0.186 (0.439)	-0.321*** (0.116)	-0.59 (0.387)	-0.454*** (0.111)
Low secondary educ.	-0.0928 (0.115)	-0.0202 (0.096)	-0.204 (0.421)	-0.329 (0.498)	0.0283 (0.125)	0.0517 (0.189)	0.225 (0.185)	-0.0221 (0.270)	0.135 (0.137)	0.236* (0.121)	0.0411 (0.077)	-0.0349 (0.087)
High secondary educ.	0.0303 (0.109)	0.0203 (0.091)	-0.0998 (0.388)	-0.183 (0.448)	0.0286 (0.120)	0.127 (0.171)	0.105 (0.171)	0.258 (0.224)	0.106 (0.131)	0.173 (0.116)	-0.0141 (0.074)	-0.00707 (0.081)
College educ.	-0.0937 (0.116)	0.151 (0.10)	-0.333 (0.472)	-0.21 (0.523)	0.0826 (0.129)	0.114 (0.189)	0.0272 (0.217)	0.512** (0.230)	0.299** (0.136)	0.132 (0.134)	-0.00154 (0.085)	-0.00567 (0.098)
Age	-0.0231*** (0.006)	-0.0210*** (0.005)	-0.0114 (0.025)	-0.0371 (0.038)	-0.0288*** (0.007)	-0.0265*** (0.010)	0.00836 (0.013)	0.0240* (0.014)	0.0145** (0.007)	0.0047 (0.006)	0.0210*** (0.004)	0.0193*** (0.005)

	Family time		Kids time		Young kid time (<10)		Old kid time(≥10)		Partner time		Non family time	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
<i>Spouse</i>												
Part time	0.253*	0.224**	0.154	-0.35	-0.256*	-0.272*	-0.549*	-0.528**	0.166	0.0362	0.00395	-0.00911
	(0.136)	(0.089)	(0.427)	(0.562)	(0.150)	(0.148)	(0.301)	(0.255)	(0.174)	(0.119)	(0.134)	(0.085)
Overwork	-0.661***	-0.629*	0.000523	0.93	0.112	0.188	0.0162	0.147	-0.14	-0.187	0.103	-0.178
	(0.113)	(0.333)	(0.30)	(0.681)	(0.076)	(0.247)	(0.161)	(0.279)	(0.123)	(0.383)	(0.067)	(0.245)
Low secondary educ.	0.122	0.0389	0.306	-0.622	-0.0071	0.0227	-0.166	-0.106	0.00648	0.158	-0.0983	-0.148
	(0.103)	(0.112)	(0.362)	(0.633)	(0.104)	(0.228)	(0.185)	(0.261)	(0.127)	(0.124)	(0.071)	(0.091)
High secondary educ.	0.180*	0.0559	0.155	-0.0555	-0.0361	-0.0977	0.0156	-0.0659	0.0585	0.195	-0.0784	-0.177**
	(0.097)	(0.107)	(0.302)	(0.50)	(0.10)	(0.179)	(0.176)	(0.235)	(0.122)	(0.123)	(0.066)	(0.086)
College educ.	0.279***	-0.0473	0.269	0.525	-0.144	-0.0152	-0.0801	-0.495**	-0.025	0.290**	-0.027	0.0326
	(0.103)	(0.117)	(0.415)	(0.557)	(0.113)	(0.189)	(0.210)	(0.250)	(0.133)	(0.130)	(0.081)	(0.091)
<i>Household</i>												
Domestic service	0.0109	-0.0377	0.166	-1.040*	0.168*	0.206	-0.392**	-0.0525	0.0753	0.147	0.123	-0.0333
	(0.092)	(0.090)	(0.318)	(0.558)	(0.088)	(0.138)	(0.174)	(0.259)	(0.107)	(0.10)	(0.081)	(0.089)
Child aged 0-2	0.153**	0.200***	-1.551***	-1.477***	0.326***	0.188*	-0.494	-0.48	-0.263**	-0.320***	-0.389***	-0.0953
	(0.072)	(0.070)	(0.348)	(0.557)	(0.066)	(0.104)	(0.428)	(0.386)	(0.102)	(0.102)	(0.084)	(0.083)
Total child 0-9	0.0431	0.0478	1.301***	1.129***	0.313***	0.439***	-1.261***	-1.139***	-0.148**	-0.127**	-0.114***	-0.0514
	(0.044)	(0.041)	(0.145)	(0.180)	(0.040)	(0.070)	(0.215)	(0.226)	(0.067)	(0.064)	(0.042)	(0.046)
Total child 10-18	-0.122**	-0.0519	1.292***	1.127***	-0.801***	-0.782***	0.474***	0.255**	-0.091	-0.0515	0.0848**	0.0352
	(0.060)	(0.050)	(0.143)	(0.291)	(0.107)	(0.171)	(0.086)	(0.120)	(0.062)	(0.055)	(0.038)	(0.045)
Constant	5.362***	5.361***	0.251	1.085	4.927***	4.560***	3.098***	2.041***	3.538***	3.758***	3.791***	4.061***
	(0.30)	(0.278)	(1.233)	(1.651)	(0.316)	(0.445)	(0.616)	(0.720)	(0.332)	(0.329)	(0.231)	(0.265)
Observations	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222

Standard errors in parentheses. Reference group: individual working standard shift, full time and with primary education with a spouse also working standard shift, full time and with primary education.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 5: SUR assuming mothers and fathers errors are correlated. Parent's minutes per day in six activities, by individual and spouse's work schedule.**

	Family time		Kids time		Young kid time (<10)		Old kid time(≥10)		Partner time		Non family time	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
<b>Own work schedule</b>												
Unemployed	29.68*** (8.849)	40.40*** (10.930)	7.805** (3.753)	5.333*** (1.958)	82.22*** (8.343)	33.18*** (6.601)	22.02*** (5.377)	25.11*** (4.789)	27.62*** (7.006)	45.34*** (8.860)	137.2*** (10.240)	189.4*** (11.930)
No working	59.94*** (11.290)	95.00*** (11.440)	0.931 (4.787)	4.505** (2.048)	94.29*** (10.640)	29.07*** (6.904)	16.78** (6.859)	15.97*** (5.009)	13.19 (8.936)	63.44*** (9.267)	99.33*** (13.060)	114.5*** (12.480)
Evening shift	-54.39*** (15.320)	-81.02*** (16.470)	-3.361 (6.496)	-0.144 (2.950)	-11.23 (14.440)	-1.662 (9.946)	-8.384 (9.308)	7.214 (7.216)	-7.792 (12.130)	-2.719 (13.350)	29.32* (17.720)	18.58 (17.980)
Split shift	-13.47 (11.410)	-36.84*** (8.743)	-6.664 (4.841)	0.625 (1.566)	-18.47* (10.760)	-26.77*** (5.279)	-13.64** (6.936)	-1.466 (3.829)	-5.435 (9.036)	-18.60*** (7.085)	-35.29*** (13.20)	-36.89*** (9.540)
Night shift	-73.68 (48.490)	-11.55 (28.520)	52.64** (20.560)	5.811 (5.106)	-4.249 (45.720)	10.84 (17.220)	-4.442 (29.460)	7.68 (12.490)	-25.28 (38.390)	-19.17 (23.110)	35.12 (56.090)	-5.535 (31.120)
<b>Spouse's work schedule</b>												
Unemployed	21.53** (10.610)	24.51*** (9.115)	-5.525 (4.501)	-3.203** (1.632)	-36.19*** (10.010)	-26.14*** (5.503)	-17.47*** (6.449)	-10.63*** (3.992)	26.94*** (8.403)	23.16*** (7.387)	-1.815 (12.280)	-12.64 (9.946)
No working	89.91*** (11.10)	52.18*** (11.630)	-3.829 (4.708)	-5.423*** (2.082)	-67.75*** (10.470)	-29.50*** (7.020)	-20.07*** (6.746)	-1.279 (5.093)	48.53*** (8.789)	7.486 (9.422)	-63.27*** (12.840)	-47.66*** (12.690)
Evening shift	-78.36*** (15.990)	-42.07*** (15.780)	10.71 (6.783)	-1.894 (2.826)	23.22 (15.080)	67.20*** (9.527)	16.23* (9.718)	6.933 (6.911)	-4.11 (12.660)	0.668 (12.790)	33.83* (18.50)	-17.31 (17.220)
Split shift	-41.73*** (8.487)	-13.13 (11.760)	3.413 (3.60)	-1.902 (2.105)	41.88*** (8.002)	34.11*** (7.098)	1.547 (5.157)	-1.79 (5.150)	-23.72*** (6.720)	-0.342 (9.528)	19.29** (9.817)	-12.71 (12.830)
Night shift	-4.135 (27.680)	-53.63 (49.950)	8.153 (11.740)	-5.083 (8.945)	-3.467 (26.10)	52.18* (30.160)	-1.656 (16.820)	-4.663 (21.880)	-31.77 (21.920)	-5.829 (40.480)	36.25 (32.020)	-67.66 (54.50)
<b>Control variables</b>												
<i>Own</i>												
Part time	12.45 (10.450)	23.58 (18.270)	4.066 (4.433)	-2.252 (3.272)	30.68*** (9.855)	17.57 (11.030)	4.557 (6.351)	0.0685 (8.002)	9.52 (8.275)	24.49* (14.810)	36.68*** (12.090)	36.99* (19.940)
Overwork	-55.12** (26.980)	-34.97*** (10.330)	-4.526 (11.440)	-1.869 (1.850)	-22.89 (25.440)	-4.606 (6.239)	-7.849 (16.40)	-7.685* (4.526)	-8.317 (21.360)	-13.17 (8.374)	-25.88 (31.210)	-23.00** (11.280)
Low secondary	-9.965 (11.30)	-2.723 (11.030)	-4.637 (4.794)	-1.829 (1.975)	1.915 (10.660)	0.00832 (6.659)	11.51* (6.869)	1.128 (4.831)	7.505 (8.949)	15.58* (8.939)	5.125 (13.070)	-5.129 (12.040)
High secondary	3.083 (10.920)	1.269 (10.40)	-4.538 (4.631)	-1.086 (1.862)	-0.399 (10.30)	2.046 (6.279)	10.29 (6.636)	5.425 (4.555)	4.131 (8.646)	10.62 (8.427)	-1.597 (12.630)	-2.499 (11.350)
College	-13.64 (12.20)	19.45 (12.250)	-5.756 (5.175)	-1.237 (2.194)	10.91 (11.50)	-5.463 (7.396)	9.948 (7.415)	10.26* (5.366)	17.05* (9.661)	6.352 (9.927)	2.016 (14.110)	-4.853 (13.370)
Age	-1.368 (0.893)	-1.27 (0.826)	-0.127 (0.379)	-0.222 (0.148)	-1.444* (0.842)	-0.682 (0.499)	-0.13 (0.543)	0.392 (0.362)	2.061*** (0.707)	-1.004 (0.670)	3.544*** (1.033)	1.178 (0.902)

	Family time		Kids time		Young kid time (<10)		Old kid time(≥10)		Partner time		Non family time	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
<i>Spouse</i>												
Part time	30.78*	19.79*	2.892	-0.974	-34.71**	-12.03*	-10.59	-7.837*	12.95	4.567	1.429	0.786
	(17.740)	(10.770)	(7.522)	(1.928)	(16.720)	(6.501)	(10.780)	(4.716)	(14.040)	(8.726)	(20.510)	(11.750)
Overwork	-31.69***	-39.68	1.427	8.582*	28.34***	44.00***	-1.208	18.79	-5.635	-10.6	17.98	-14.48
	(10.030)	(27.790)	(4.254)	(4.977)	(9.458)	(16.780)	(6.096)	(12.170)	(7.942)	(22.530)	(11.60)	(30.330)
Low secondary	8.039	6.423	5.655	-0.924	1.518	2.546	-4.797	-1.382	-0.201	9.736	-19.86	-27.19**
	(10.710)	(11.640)	(4.541)	(2.085)	(10.10)	(7.030)	(6.506)	(5.10)	(8.477)	(9.436)	(12.390)	(12.710)
High secondary	14.05	8.684	1.94	-0.374	-0.131	1.844	1.358	-1.385	3.464	10.62	-15	-29.35**
	(10.10)	(11.250)	(4.281)	(2.014)	(9.518)	(6.791)	(6.134)	(4.927)	(7.993)	(9.116)	(11.680)	(12.270)
College	29.10**	-4.574	2.412	1.847	-7.704	12.86*	-3.291	-8.265	-2.098	16.99*	-12.4	-3.612
	(11.890)	(12.570)	(5.043)	(2.251)	(11.210)	(7.589)	(7.226)	(5.506)	(9.415)	(10.190)	(13.760)	(13.720)
Age	-1.079	-1.537*	-0.0199	0.167	-0.608	0.0991	0.554	0.0116	-1.036	2.613***	0.223	2.093**
	(0.802)	(0.920)	(0.340)	(0.165)	(0.756)	(0.556)	(0.487)	(0.403)	(0.635)	(0.746)	(0.928)	(1.004)
<i>Household</i>												
Domestic service	-1.741	-4.498	0.93	-3.176	4.327	9.424	-6.237	-2.012	5.223	8.824	20.69*	-6.172
	(10.50)	(10.810)	(4.452)	(1.937)	(9.898)	(6.529)	(6.379)	(4.737)	(8.312)	(8.764)	(12.140)	(11.80)
Child aged 0-2	18.40**	25.51***	-12.33***	-3.745**	75.31***	12.48**	0.837	0.496	-15.38**	-16.37**	-40.53***	-5.467
	(8.924)	(9.192)	(3.785)	(1.646)	(8.414)	(5.550)	(5.423)	(4.026)	(7.065)	(7.450)	(10.320)	(10.030)
Total children	-2.489	-0.793	-2.208	-0.764	-17.99***	-6.322	8.200*	5.169	-3.967	-9.579	-1.388	8.75
	(7.202)	(7.419)	(3.054)	(1.329)	(6.790)	(4.479)	(4.376)	(3.250)	(5.702)	(6.012)	(8.331)	(8.096)
Total child 0-9	8.606	4.362	22.62***	5.132***	61.79***	22.92***	-25.89***	-13.84***	-6.522	2.024	-20.40**	-12.45
	(8.107)	(8.351)	(3.438)	(1.496)	(7.644)	(5.042)	(4.927)	(3.658)	(6.419)	(6.768)	(9.378)	(9.113)
Total child 10-18	-6.416	-2.207	22.57***	5.062***	-14.59*	-8.177	15.38***	2.792	-2.083	3.528	11.29	-6.38
	(8.365)	(8.617)	(3.548)	(1.543)	(7.887)	(5.202)	(5.083)	(3.774)	(6.623)	(6.983)	(9.676)	(9.403)
Constant	189.1***	203.9***	-13.36	2.222	107.9***	59.00***	0.135	0.0366	26.87	-7.883	-33.74	5.917
	(33.20)	(34.20)	(14.080)	(6.124)	(31.30)	(20.650)	(20.170)	(14.980)	(26.280)	(27.710)	(38.40)	(37.320)
Observations	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222
R-squared	0.292	0.271	0.123	0.053	0.542	0.321	0.233	0.145	0.139	0.154	0.327	0.369

Standard errors in parentheses. Reference group: individual working standard shift, full time and with primary education with a spouse also working standard shift, full time and with primary education.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 6: 3SLS including as explanatory variable the time use of the spouse. Parent's minutes per day in six activities, by individual and spouse's work schedule.**

	Family time		Kids time		Young kid time (<10)		Old kid time(≥10)		Partner time		Non family time	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
<b>Spouse's Time Use</b>	0.849**	1.124**	0.0895	-1.314	0.891	-0.0686	1.412	-0.0897	1.032**	1.268***	0.19	0.591**
	(0.390)	(0.459)	(1.527)	(4.283)	(1.325)	(0.384)	(1.793)	(3.136)	(0.442)	(0.274)	(0.760)	(0.288)
<b>Own work schedule</b>												
Unemployed	8.858	16.19	8.091	-1.929	105.5***	30.70**	37.03*	23.54	3.708	11.18	139.6***	190.5***
	(10.660)	(12.330)	(6.366)	(24.570)	(36.740)	(15.410)	(20.040)	(55.030)	(11.020)	(10.0)	(13.270)	(12.130)
No working	15.62	-6.066	1.416	-0.527	120.6***	24.42	18.58*	14.17	5.465	1.91	108.4***	151.8***
	(21.380)	(42.40)	(9.641)	(17.380)	(41.360)	(26.520)	(10.110)	(62.850)	(7.007)	(14.660)	(38.110)	(22.770)
Evening shift	-18.65	7.065	-3.192	13.93	-71.1	-0.0689	-18.17	8.67	-8.482	2.492	32.6	-1.397
	(19.230)	(36.830)	(7.177)	(47.610)	(90.120)	(13.840)	(18.610)	(51.970)	(8.473)	(10.250)	(21.220)	(20.030)
Split shift	-2.324	10.07	-6.494	5.111	-48.86	-23.89	-11.11	-1.327	-5.082	11.47	-32.88**	-48.28***
	(8.920)	(20.080)	(5.751)	(15.480)	(46.370)	(16.890)	(10.350)	(6.185)	(6.326)	(8.398)	(15.60)	(11.190)
Night shift	-28.13	-6.901	53.10**	16.53	-50.74	10.6	2.143	7.531	-19.26	21.11	47.95	-26.94
	(36.60)	(19.440)	(21.920)	(39.530)	(88.0)	(17.170)	(43.280)	(13.380)	(26.970)	(19.920)	(74.560)	(32.790)
<b>Spouse's work schedule</b>												
Unemployed	-12.78	-8.845	-6.003	7.054	-65.74	-20.5	-52.92	-8.65	-19.86	-11.85	-37.72	-93.65**
	(17.090)	(15.250)	(9.306)	(34.130)	(45.60)	(32.310)	(45.940)	(69.390)	(20.910)	(9.164)	(144.40)	(40.240)
No working	9.227	-15.19	-4.233	-4.2	-93.65**	-23.03	-42.61	0.226	-16.96	-9.241	-84.97	-106.3***
	(37.530)	(28.460)	(8.229)	(7.870)	(40.210)	(36.720)	(30.460)	(52.750)	(28.560)	(8.057)	(88.210)	(31.60)
Evening shift	-9.552	19.06	10.72	-6.311	24.7	66.43***	6.045	6.181	-1.303	10.55	30.31	-34.62*
	(33.570)	(26.810)	(6.769)	(16.860)	(18.270)	(10.30)	(19.530)	(26.960)	(8.990)	(9.982)	(23.30)	(19.140)
Split shift	-10.44	2.017	3.357	-10.66	65.73*	32.84***	3.617	-3.014	-4.516	6.549	26.29	8.133
	(15.110)	(9.801)	(3.745)	(28.940)	(36.380)	(9.695)	(7.984)	(42.760)	(9.311)	(7.454)	(29.950)	(17.030)
Night shift	5.674	29.19	7.633	64.1	-13.12	51.89*	-12.5	-5.062	-11.98	26.22	37.3	-88.41
	(17.80)	(48.050)	(14.490)	(227.30)	(33.990)	(30.150)	(28.210)	(26.130)	(17.710)	(31.370)	(31.080)	(56.320)
<b>Control variables</b>												
<i>Own</i>												
Part time	-4.355	-11.01	4.153	1.549	41.40**	15.19	15.62	-0.881	4.806	8.067	36.53***	36.15*
	(10.120)	(19.080)	(4.644)	(16.650)	(19.720)	(17.050)	(16.850)	(33.960)	(6.147)	(11.660)	(11.680)	(20.250)
Overwork	-21.42	0.648	-5.295	0.00601	-62.09	-2.661	-34.38	-7.793	2.629	-6.026	-23.14	-33.62***
	(22.710)	(15.930)	(17.40)	(8.787)	(65.870)	(12.720)	(41.080)	(5.829)	(15.640)	(6.573)	(32.120)	(12.40)
Low secondary	-15.42**	-11.76	-4.554	5.602	-0.354	0.112	13.46	0.698	-2.545	15.84**	10.28	6.599
	(7.585)	(8.146)	(4.881)	(24.650)	(13.410)	(6.632)	(10.380)	(16.130)	(7.842)	(6.759)	(24.970)	(13.140)
High secondary	-4.292	-14.52	-4.505	1.464	-2.042	2.037	12.25	5.547	-6.83	6.223	3.968	6.362
	(7.862)	(9.20)	(4.587)	(9.940)	(12.80)	(6.270)	(10.140)	(6.013)	(8.034)	(6.519)	(26.530)	(11.990)

	Family time		Kids time		Young kid time (<10)		Old kid time(≥10)		Partner time		Non family time	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
College	-9.753 (7.605)	-13.25 (15.10)	-5.922 (6.073)	1.933 (12.070)	-0.547 (22.760)	-5.992 (8.193)	21.62 (18.970)	9.969 (12.070)	-0.491 (10.50)	9.012 (7.481)	2.7 (14.120)	2.471 (13.730)
Age	-0.062 (1.048)	-0.0576 (0.963)	-0.142 (0.285)	-0.248 (0.548)	-1.533* (0.926)	-0.724 (0.674)	-0.146 (0.797)	0.442 (1.521)	-0.636 (0.911)	0.31 (0.385)	3.148 (2.369)	1.046 (0.959)
<i>Spouse</i>												
Part time	10.75 (14.090)	5.792 (9.489)	3.094 (8.339)	4.369 (18.790)	-50.36* (30.210)	-9.919 (13.680)	-10.69 (15.550)	-7.428 (15.250)	-12.33 (14.390)	-7.504 (6.994)	-5.585 (34.90)	-20.88 (15.60)
Overwork	-1.986 (14.950)	22.27 (31.550)	1.594 (5.094)	2.634 (25.360)	32.45** (12.820)	42.43** (18.890)	9.644 (16.390)	18.08 (27.470)	7.96 (8.022)	-0.0584 (17.20)	22.34 (20.820)	0.805 (31.730)
Low secondary	10.35 (6.601)	17.62* (9.210)	5.819 (5.089)	-7.018 (21.10)	1.51 (12.070)	2.677 (7.045)	-6.39 (9.412)	-0.35 (36.390)	-16.28* (9.497)	0.22 (7.453)	-18.89 (12.920)	-30.22** (13.010)
High secondary	12.97** (6.295)	5.218 (7.756)	2.038 (4.452)	-6.338 (20.730)	-1.954 (11.90)	1.817 (6.784)	-6.304 (12.630)	-0.461 (32.510)	-7.493 (7.573)	5.381 (6.023)	-14.53 (11.580)	-28.41** (12.470)
College	12.58 (10.670)	10.76 (10.850)	2.523 (5.329)	-5.718 (26.090)	-2.837 (15.10)	13.61 (8.478)	-17.79 (20.960)	-7.372 (31.420)	-8.655 (7.210)	-4.624 (9.198)	-11.48 (13.860)	-4.802 (13.980)
<i>Household</i>												
Domestic service	2.079 (6.711)	-2.541 (7.464)	1.214 (6.556)	-1.954 (7.318)	-4.068 (17.240)	9.721 (6.625)	-3.396 (9.897)	-2.571 (20.420)	-3.886 (7.013)	2.202 (6.867)	21.86* (12.650)	-18.39 (13.710)
Child aged 0-2	-3.268 (11.960)	4.83 (11.150)	-11.99* (6.445)	-19.95 (52.370)	64.20*** (20.390)	17.65 (30.140)	0.136 (7.760)	0.572 (5.116)	1.517 (8.238)	3.13 (7.464)	-39.49*** (11.260)	18.47 (16.470)
Total children	-1.815 (4.50)	2.004 (5.359)	-2.14 (3.396)	-3.666 (11.030)	-12.36 (12.40)	-7.557 (8.80)	0.901 (11.870)	5.904 (25.40)	5.92 (6.180)	-4.549 (4.506)	-3.047 (11.080)	9.57 (8.172)
Total child 0-9	4.901 (5.420)	-5.312 (7.742)	22.16** (8.804)	34.86 (98.30)	41.37 (32.430)	27.16 (25.520)	-6.343 (26.370)	-16.16 (80.290)	-8.611* (4.647)	10.29* (5.853)	-18.04 (13.620)	-0.402 (12.210)
Total child 10-18	-4.542 (5.228)	5.005 (6.365)	22.11*** (8.540)	34.72 (97.180)	-7.307 (14.270)	-9.178 (7.339)	11.43 (8.821)	4.172 (48.660)	-5.725 (4.905)	6.17 (5.357)	12.5 (10.580)	-13.05 (9.852)
Constant	15.97 -75.34	-8.71 -80.13	-13.56 -13.3	-15.34 -68.01	55.29 -74.76	66.41* -37.98	0.0835 -29.11	0.0487 -14.94	35.00* -19.79	-41.95* -24.89	-34.87 -38.78	25.84 -35.09
Observations	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222	1,222
R-squared	0.73	0.661	0.131	-9.301	0.345	0.324	-0.595	0.13	0.579	0.516	0.373	0.348

Standard errors in parentheses. Reference group: individual working standard shift, full time and with primary education with a spouse also working standard shift, full time and with primary education.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 7: Generalized least squares with a Poisson-gamma random component for dual-earner couples. Parent's minutes per day in six activities, by individual and spouse's work schedule.**

	Family time		Kids time		Young kid time (<10)		Old kid time(≥10)		Partner time		Non family time	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
<b>Own work schedule</b>												
Evening shift	-0.910*** (0.210)	-1.126*** (0.292)	-0.960* (0.554)	-0.657 (1.392)	-0.249 (0.163)	-0.121 (0.377)	-0.643 (0.396)	0.857* (0.520)	-0.380* (0.198)	-0.870*** (0.232)	0.215** (0.106)	0.244* (0.146)
Split shift	-0.293** (0.121)	-0.272*** (0.092)	-0.775* (0.399)	-0.0409 (0.528)	-0.18 (0.117)	-1.060*** (0.168)	-0.658*** (0.195)	-0.236 (0.251)	-0.257* (0.141)	-0.253** (0.118)	-0.287*** (0.097)	-0.352*** (0.098)
Night shift	-1.308* (0.777)	-0.356 (0.377)	2.283*** (0.482)	1.960*** (0.665)	0.652*** (0.189)	-0.307 (0.354)	0.274 (1.192)	-0.00385 (0.786)	-1.317** (0.616)	-0.474** (0.221)	0.135 (0.362)	-0.132 (0.375)
<b>Spouse's work schedule</b>												
Evening shift	-1.450*** (0.320)	-0.743*** (0.183)	-2.672** (1.323)	-0.432 (0.517)	0.726*** (0.204)	1.144*** (0.216)	0.478 (0.333)	0.542 (0.354)	-0.763*** (0.294)	-0.410** (0.194)	0.602*** (0.137)	0.166 (0.131)
Split shift	-0.396*** (0.097)	-0.264** (0.117)	0.172 (0.394)	0.412 (0.669)	0.534*** (0.104)	0.769*** (0.159)	0.104 (0.195)	0.289 (0.241)	-0.340*** (0.119)	-0.145 (0.131)	0.161* (0.095)	-0.0364 (0.096)
Night shift	-0.0104 (0.354)	-0.697* (0.407)	1.537*** (0.491)	-17.71*** (1.252)	0.196 (0.302)	0.291 (0.90)	-0.093 (0.345)	1.075 (0.747)	-1.160** (0.558)	-0.0166 (0.515)	0.446 (0.271)	-1.930*** (0.555)
<b>Control variables</b>												
<i>Own</i>												
Part time	0.0958 (0.098)	0.109 (0.212)	0.418 (0.358)	-18.04*** (0.495)	0.470*** (0.098)	0.19 (0.248)	0.164 (0.193)	-0.262 (0.456)	0.0488 (0.122)	0.0073 (0.271)	0.303*** (0.089)	0.375*** (0.124)
Overwork	-1.457*** (0.435)	-0.472*** (0.138)	-1.749** (0.739)	-0.561 (0.549)	-1.075* (0.647)	-0.481 (0.293)	-0.972 (0.747)	-1.261*** (0.384)	-0.0962 (0.515)	-0.439*** (0.170)	-0.537 (0.440)	-0.600*** (0.148)
Low secondary	-0.331 (0.222)	-0.0698 (0.186)	-0.86 (0.942)	0.17 (1.246)	0.137 (0.237)	0.313 (0.284)	0.0852 (0.40)	-0.513 (0.470)	0.504* (0.286)	0.277 (0.20)	0.191 (0.179)	0.0161 (0.196)
High secondary	-0.288 (0.196)	0.0289 (0.159)	0.451 (0.780)	-0.94 (1.280)	0.0173 (0.213)	0.149 (0.262)	-0.109 (0.350)	-0.0812 (0.458)	0.450* (0.266)	0.249 (0.192)	0.143 (0.160)	-0.00319 (0.188)
College	-0.421** (0.209)	0.12 (0.178)	-0.346 (0.799)	-0.371 (1.163)	0.109 (0.221)	0.0397 (0.291)	0.116 (0.381)	0.0901 (0.50)	0.596** (0.270)	0.332 (0.213)	0.153 (0.172)	0.0819 (0.20)

	Family time		Kids time		Young kid time (<10)		Old kid time(≥10)		Partner time		Non family time	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Age	-0.0102 (0.010)	-0.00169 (0.008)	-0.00296 (0.045)	-0.0577 (0.044)	-0.0290*** (0.011)	-0.0249 (0.015)	0.00797 (0.018)	-0.00017 (0.021)	0.0139 (0.012)	-0.00917 (0.010)	0.0257*** (0.009)	0.0111 (0.008)
<i>Spouse</i>												
Part time	0.125 (0.204)	0.212** (0.093)	-17.21*** (0.527)	-0.179 (0.491)	-0.22 (0.220)	-0.325* (0.173)	0.19 (0.393)	-0.4 (0.352)	-0.0753 (0.293)	-0.089 (0.121)	-0.0195 (0.226)	-0.0597 (0.106)
Overwork	-0.429*** (0.164)	-0.784* (0.417)	0.42 (0.403)	0.117 (0.806)	0.173 (0.112)	0.447 (0.282)	0.171 (0.201)	0.415 (0.756)	-0.188 (0.179)	-0.192 (0.497)	0.122 (0.110)	-0.026 (0.308)
Low secondary	0.256 (0.218)	-0.28 (0.191)	1.339** (0.557)	1.545 (1.975)	-0.166 (0.156)	-0.302 (0.285)	-0.221 (0.312)	0.0451 (0.462)	0.0515 (0.220)	0.478** (0.238)	-0.235* (0.128)	-0.0167 (0.245)
High secondary	0.393** (0.196)	-0.242 (0.169)	0.804 (0.573)	2.903** (1.262)	-0.134 (0.176)	-0.0525 (0.272)	-0.289 (0.316)	-0.259 (0.456)	0.188 (0.211)	0.408* (0.220)	-0.134 (0.129)	0.0329 (0.216)
College	0.434** (0.215)	-0.359** (0.178)	1.165* (0.609)	3.138** (1.351)	-0.155 (0.185)	0.0727 (0.312)	-0.493 (0.334)	-0.227 (0.493)	0.138 (0.229)	0.346 (0.233)	-0.0951 (0.142)	0.208 (0.232)
<i>Household</i>												
Domestic service	-0.134 (0.112)	-0.108 (0.111)	0.124 (0.386)	-0.83 (0.637)	0.205** (0.104)	0.0244 (0.159)	-0.186 (0.216)	-0.0586 (0.334)	0.0453 (0.143)	0.135 (0.140)	-0.0255 (0.114)	0.0111 (0.112)
Child aged 0-2	0.299** (0.120)	0.320*** (0.112)	-3.572*** (1.064)	-1.086 (0.888)	0.281*** (0.098)	0.182 (0.155)	-1.226* (0.628)	-0.981 (0.734)	-0.102 (0.167)	-0.203 (0.153)	-0.397*** (0.136)	-0.245* (0.134)
Total child 0-9	0.0214 (0.081)	-0.0287 (0.074)	1.918*** (0.249)	1.285*** (0.230)	0.295*** (0.069)	0.436*** (0.117)	-1.404*** (0.268)	-1.612*** (0.419)	-0.063 (0.101)	-0.0463 (0.10)	-0.121 (0.078)	-0.0435 (0.079)
Total child 10-18	-0.0981 (0.094)	-0.117 (0.090)	1.532*** (0.177)	1.315*** (0.229)	-0.928*** (0.173)	-0.570** (0.254)	0.512*** (0.113)	-0.00894 (0.193)	-0.0687 (0.096)	0.0518 (0.086)	0.00537 (0.062)	0.0633 (0.065)
Constant	5.057*** (0.451)	4.992*** (0.419)	-1.713 (2.017)	-0.958 (1.974)	4.885*** (0.438)	4.375*** (0.709)	3.286*** (0.874)	3.790*** (1.191)	3.182*** (0.609)	4.117*** (0.545)	3.547*** (0.436)	4.122*** (0.428)

Standard errors in parentheses. Reference group: individual working standard shift, full time and with primary education with a spouse also working standard shift, full time and with primary education.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 8: SUR for dual-earner couples. Assuming mothers and father errors are correlated. Parent's minutes per day in six activities, by individual and spouse's work schedule.**

	Family time		Kids time		Young kid time (<10)		Old kid time(≥10)		Partner time		Non family time	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
<b>Own work schedule</b>												
Evening shift	-56.46*** (11.960)	-63.21*** (16.970)	-3.496 (11.960)	-1.461 (3.322)	-10.32 (11.960)	-4.174 (13.380)	-11.2 (11.960)	13.19* (7.679)	-13.47 (11.960)	-37.66*** (14.290)	29.59** (11.960)	26.62 (18.060)
Split shift	-20.03** (8.680)	-23.82*** (7.861)	-8.247** (3.922)	-0.701 (1.539)	-14.74* (7.745)	-38.41*** (6.196)	-16.13*** (5.239)	-3.387 (3.557)	-8.819 (7.156)	-15.99** (6.620)	-24.39** (10.480)	-32.57*** (8.368)
Night shift	-61.92* (37.350)	-31.47 (27.750)	70.80*** (16.880)	11.84** (5.433)	27.81 (33.330)	-1.835 (21.880)	-14.39 (22.540)	-3.438 (12.560)	-27.08 (30.80)	-17.5 (23.370)	16.23 (45.080)	-8.664 (29.540)
<b>Spouse's work schedule</b>												
Evening shift	-72.85*** (16.530)	-52.14*** (11.960)	-9.965 (7.468)	1.015 (11.960)	44.63*** (14.750)	57.66*** (11.960)	16.14 (9.975)	10.24* (11.960)	-33.36** (13.630)	-16.56 (11.960)	66.57*** (19.950)	18.88 (11.960)
Split shift	-32.19*** (7.656)	-19.73** (8.912)	0.772 (3.459)	0.793 (1.745)	41.49*** (6.831)	28.58*** (7.025)	2.721 (4.621)	3.548 (4.033)	-20.62*** (6.312)	-5.429 (7.505)	14.05 (9.241)	-0.763 (9.487)
Night shift	-9.189 (27.030)	-46.92 (38.350)	34.81*** (12.210)	-3.404 (7.508)	-6.072 (24.120)	6.591 (30.230)	0.984 (16.310)	2.888 (17.360)	-35.19 (22.280)	-3.203 (32.30)	52.87 (32.620)	-41.9 (40.820)
<b>Control variables</b>												
<i>Own</i>												
Part time	10.24 (8.108)	11.49 (17.360)	2.205 (3.663)	-4.691 (3.397)	43.19*** (7.234)	21.93 (13.680)	1.301 (4.893)	-2.295 (7.853)	3.131 (6.684)	3.894 (14.610)	34.33*** (9.785)	51.16*** (18.470)
Overwork	-50.00** (21.230)	-26.08*** (9.909)	-9.227 (9.591)	-1.739 (1.940)	-34.03* (18.940)	-10.23 (7.811)	-7.115 (12.810)	-12.13*** (4.484)	-8.468 (17.50)	-17.23** (8.344)	-28.44 (25.620)	-35.14*** (10.550)
Low secondary	-23.29 (15.10)	-4.002 (13.620)	1.381 (6.820)	1.036 (2.667)	-4.199 (13.470)	10.54 (10.740)	4.84 (9.111)	-6.272 (6.165)	21.84* (12.440)	10.68 (11.470)	23.79 (18.220)	0.601 (14.50)
High secondary	-18.18 (13.860)	2.296 (12.80)	8.647 (6.260)	-1.975 (2.506)	-1.13 (12.360)	9.809 (10.090)	2.89 (8.363)	-3.125 (5.793)	15.33 (11.420)	9.268 (10.780)	11.24 (16.720)	-2.733 (13.630)
College	-30.58** (14.720)	10.01 (14.250)	1.789 (6.651)	-0.395 (2.790)	6.632 (13.130)	6.04 (11.240)	11.36 (8.884)	-1.346 (6.450)	25.24** (12.140)	13.01 (12.0)	15.41 (17.770)	2.042 (15.170)
Age	-1.345 (1.133)	0.49 (1.033)	-0.00191 (0.512)	-0.0471 (0.202)	-1.860* (1.011)	-0.302 (0.815)	-0.165 (0.684)	0.0257 (0.468)	3.295*** (0.934)	-2.273*** (0.870)	3.735*** (1.368)	-0.935 (1.10)
<i>Spouse</i>												
Part time	12.24 (16.90)	20.07** (8.325)	-10.46 (7.637)	-0.23 (1.630)	-14.75 (15.080)	-16.44** (6.562)	8.556 (10.20)	-4.024 (3.767)	-1.362 (13.930)	-3.739 (7.010)	-1.858 (20.40)	-3.678 (8.861)
Overwork	-19.00** (9.651)	-33.65 (21.80)	8.404* (4.360)	7.669* (4.267)	8.359 (8.611)	71.51*** (17.180)	3.851 (5.824)	2.474 (9.863)	-6.374 (7.956)	-11.05 (18.350)	14.57 (11.650)	-4.095 (23.20)
Low secondary	16.77 (13.270)	-21.91 (15.50)	4.928 (5.995)	1.903 (3.034)	-14.18 (11.840)	-5.873 (12.220)	-7.579 (8.008)	2.21 (7.014)	-0.483 (10.940)	24.90* (13.050)	-23.39 (16.010)	3.796 (16.50)

	Family time		Kids time		Young kid time (<10)		Old kid time(≥10)		Partner time		Non family time	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
High secondary	24.63** (12.470)	-18.64 (14.230)	2.285 (5.633)	4.132 (2.785)	-14.24 (11.120)	-6.426 (11.210)	-8.911 (7.525)	-3.472 (6.438)	6.972 (10.280)	19.06 (11.980)	-12.9 (15.050)	6.015 (15.140)
College	28.15** (13.880)	-28.97* (15.110)	6.398 (6.273)	5.044* (2.959)	-19.02 (12.390)	2.199 (11.910)	-13.57 (8.379)	-2.728 (6.839)	4.51 (11.450)	14.73 (12.730)	-9.495 (16.760)	24.15 (16.090)
Age	0.969 (1.006)	-0.62 (1.163)	-0.123 (0.455)	-0.0666 (0.228)	-0.091 (0.898)	-0.468 (0.917)	0.156 (0.607)	0.174 (0.526)	-3.331*** (0.830)	2.553*** (0.980)	-0.483 (1.215)	2.461** (1.238)
<i>Household</i>												
Domestic service	-11.11 (9.117)	-9.435 (9.361)	3.619 (4.119)	-2.066 (1.832)	23.26*** (8.134)	-4.432 (7.378)	-4.182 (5.502)	1.242 (4.236)	4.557 (7.516)	8.569 (7.883)	-2.539 (11.0)	1.139 (9.964)
Child aged 0-2	28.24*** (9.780)	29.96*** (10.040)	-14.10*** (4.419)	-1.997 (1.966)	50.25*** (8.726)	16.71** (7.915)	-1.425 (5.902)	-1.311 (4.544)	-8.559 (8.063)	-7.535 (8.456)	-26.92** (11.80)	-16.64 (10.690)
Total children	-2.92 (8.586)	-2.773 (8.816)	-1.903 (3.879)	-0.381 (1.726)	-7.99 (7.661)	-13.65** (6.949)	9.599* (5.182)	2.969 (3.989)	4.02 (7.079)	2.634 (7.424)	-14.9 (10.360)	4.566 (9.384)
Total child 0-9	4.736 (9.462)	0.783 (9.715)	18.79*** (4.275)	4.878** (1.902)	35.47*** (8.442)	31.03*** (7.658)	-22.88*** (5.711)	-13.84*** (4.396)	-6.892 (7.801)	-3.041 (8.181)	-0.572 (11.420)	-6.503 (10.340)
Total child 10-18	-3.46 (9.506)	-4.292 (9.760)	17.64*** (4.295)	5.862*** (1.911)	-15.49* (8.481)	1.298 (7.693)	11.52** (5.737)	0.0418 (4.416)	-4.703 (7.837)	-0.823 (8.219)	12.69 (11.470)	1.594 (10.390)
Constant	118.8*** (38.0)	128.8*** (39.020)	-15.33 (17.170)	-2.073 (7.638)	115.2*** (33.90)	69.95** (30.750)	25.11 (22.930)	19.12 (17.650)	56.87* (31.330)	39.25 (32.860)	-22.34 (45.860)	36.28 (41.530)
Observations	495	495	495	495	495	495	495	495	495	495	495	495
R-squared	0.212	0.181	0.194	0.088	0.558	0.373	0.284	0.146	0.118	0.097	0.185	0.185

Standard errors in parentheses. Reference group: individual working standard shift, full time and with primary education with a spouse also working standard shift, full time and with primary education.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1