

## **Non-standard work-schedule and partnership dissolution: is it mediated by the division of domestic tasks ?**

### **Background**

A growing proportion of European workers have nonstandard work schedules: they work in the evening, at night, on weekends or have irregular work times. Individuals may work nonstandard hours purely because of labour employment conditions (Lozano et al., 2016) and viewed as something negative, that individuals would want to negotiate their way out of (Täht & Mills 2016). Alternatively, nonstandard work may be a choice individuals make to suit their personal needs or family obligations. Individuals with a family life (married and/or kids) would be less likely to choose a different work rhythm than their partner or children. Inversely, having young children that need day-care could mean that parents work “complementary” schedules, so that there is always a parent available as a caretaker (Täht & Mills 2016).

Whatever the reason for working in atypical hours, such types of schedule tend to increase the average workload while blurring the separation between work and personal time. Employees working nonstandard hours more often report difficulties in balancing work and family life, stating that their workhours make them less available for family and social commitments. Hence, nonstandard work schedules may have important implications on individuals’ well-being and family situation. The aim of this study is to analyse the effect of nonstandard working hours on the risk of couples separating and how this relationship is mediated by the division of domestic tasks.

Previous research indicates that working conditions, such as schedules, have a significant impact on relationship quality and can influence a couple’s separation. Presser (2000) found that in a long (over five years) relationship where the wife was working fixed night shifts, the odds of divorcing were significantly increased, relatively to couples where the wife worked daytime hours, showing a gender related effect. When restricted to couples with children, the effect of night and rotating shifts becomes even more apparent, for husbands and wives alike. Presser also noted the duration of marriage as an important factor, finding that a partner working nonstandard hours increased separation particularly in recent marriages. In addition to this, it has been suggested that shift work increases conflict for couples with a first child, again especially for women (Perry-Jenkins et al., 2007). Thus, we can suppose that nonstandard workhours degrade relationship quality by increasing conflict levels and hence, the separation rate. As there seems to be a differentiated effect of nonstandard hours on couple’s dissolution for men and women, we will study both separately.

Explanatory factors of this risk of separation are stress and tiredness linked with work schedules, problems of reconciling work and private life, and poor synchronization of leisure activities between partners. Another mediator of the relationship between nonstandard work schedules and the risk of separation may related to their effect on the division of domestic tasks (Craig and Powell 2011). Hence, according to the time availability perspective, the time allocated to domestic tasks is directly dependent on time spent at work and work schedules, meaning that the more time the individual works, the less time they will spend at home doing chores (Bianchi et al., 2000; Pailhé, Solaz & Souletie, 2019). The partner working nonstandard schedule may allocate more time to housework, because he or she disposes of more free time. The desynchronization of work schedules between partners may leads to a more equal division of housework, and thus may increase well-being and thus decrease the risk of separation (Ruppanner et al. 2017; Kamp et al. 2012). Alternatively, decreasing work specialisation between partners and/or being in a gender-atypical situation (the man perform more domestic tasks than his wife) because of unstandard working hours it may lead to lower well-being and may increase the risk of separation (Becker 1991).

### **Data and method**

#### ***Data and sample***

This study uses data from the *Generation & Gender Survey*, a cross-national panel survey conducted as part of the *Generations & Gender Programme*. This international programme led by the *UNECE* (United

Nations Economic Commission for Europe, regional commission of the United Nations) is constructed to include three interview waves of a selected sample, with a 3-year interval between each interrogation. As of 2019, 19 countries have actively started participating in the survey. The survey includes questions about the respondent's family life, partnerships, fertility plans and work activity, as well as, when applicable, additional information on the respondents' partners. This last aspect constitutes a major advantage of the *Generation & Gender Survey* compared to other surveys, as it permits detailed information on spouses and partners to be included in the analyses, which can greatly improve results. We restrict the sample to European countries having carried out at least two waves of the survey (excluding five countries at this stage) and which include specific information on the respondent's work schedules (excluding four more countries). To reduce potential bias, the countries whose attrition rate in our sample exceed 40% are excluded (excluding four other countries). We limit the sample to individuals indicating a work schedule, effectively excluding the respondents reporting no work activity and being in relationship. Lastly, as imputation of missing values was only carried out on important variables such as income, we do a complete case analysis, thus excluding individuals presenting missing values on variables of interest. Hence, our final sample is of size  $N = 10,508$  and includes observations from Austria, Bulgaria, France, Georgia, the Netherlands and Russia, collected between 2002 and 2013.

### ***Dependent and control variables***

***Nonstandard work schedule.*** The variables indicating whether the individual works a standard schedule or not, and if not, which type of work schedule it is, are constructed using the corresponding question from wave 1. We first use a binary variable indicating if the individual works a regular schedule during the daytime or not (early/late/night/weekend hours; irregular or varying work hours are also considered nonstandard, even if they are set during the day). For other models where nonstandard work is not the dependent variable but an explanatory variable, further categories are used to differentiate between regular day-time hours, early/late/night hours, weekend hours, regularly changing hours and unpredictable hours.

***Relationship quality.*** Relationship quality is assessed by using the probability to separate. We use a binary indicator for the dissolution of the respondent's relationship occurring between the two waves. We define dissolution as any separation between two partners, married or not, co-resident or not.

***Division of domestic tasks.*** To evaluate the situation for each respondent, we use the answers from 7 questions about household chores to construct a score of female over-implication (this score is derived from Solaz, 2009). The questions ranged from preparing meals, doing the dishes, shopping for food and house cleaning to doing repairs in the house, taking care of bills and organising social events. Respondents had to indicate whether they are always or usually in charge of that task, if both are equally in charge, or if the partner usually or always does it. For every answer, we assess whether the woman in the relationship is in charge or not and assign points according to the answer (+2 to the score if the woman is "always" in charge; +1 if she is "usually in charge"; 0 if both are equally in charge or if someone else in or outside the household carries it out; -1 if the man "usually" does it and -2 if it is "always" the man). A positive score indicates that the woman is predominantly in charge of domestic labour, a score around 0 means that the division is mostly equal and the score is negative when the man is the most involved. The division of domestic tasks in a couple is thus defined by three situations: either the man does most of the tasks, both do more or less an equal amount or the woman does most.

***Control variables.*** Other variables include control variables commonly used in published material such as religion, migration background and education. As we are using data from different countries, we define a control variable for geographic regions. To prevent sample size issues in some categories, we group countries into geographical areas ("Western Europe" for Austria, France and the Netherlands; "Eastern Europe" for Bulgaria, Georgia and the Russian Federation). All variables used for modelling the division of domestic tasks are coded into couple-level variables that describe the respondent's

situation relatively to their partner (using the respondent's variables combined with those regarding their partner).

### Statistical methods

To study the effect of nonstandard work and time allocation on domestic work within cohabitating couples, we build a model with the couple as the analysis unit using the recoded couple-level variables. As we analyse domestic life, and are mainly interested in the effect of partner's work on the division of household tasks we restrict our sample to co-resident partners (married or non-married) where both actively work (dual-earners) and all the information on respondent and partner are available in the variables used.

To study the effect of nonstandard work on the likelihood of separation, we perform a logistic regression on the binary variable indicating relationship dissolution. Since previous research suggests that some effects may vary across genders, we construct a complete model and two additional, separate models, for men and women.

### Division of domestic tasks

Our findings verify results from previous research. Firstly, we observe that the male partner working nonstandard hours increases the probability of that male partner doing a majority of housework. When both partners work the same amount of time and when the female partner works longer we observe a decrease of female participation, an increase of the probability of equal division when both work as long, and even an increase of male participation when the woman works the longest (relatively to the situation where the man works most). These results appear to confirm time allocation theories concerning domestic work: when women work longer than their partner, it will be less likely for them to do the majority of domestic tasks, showing that partners do adapt according to how much time each has at their disposal rather than assigning a gendered role to each by default. This is further confirmed by the result showing that men working nonstandard hours are more likely to engage into household work. Men working nonstandard hours potentially have more free time during hours of the day that are favourable to doing household work, leading them to engage more. However, while our results suggest that women's participation in domestic work can be linked to non-gendered factors such as each partner's working time or income, we also find evidence that the division of household tasks is still partly based on more traditional models. This is suggested by the partners' age and relationship length, as well as the presence of children, which all indicate that older couples and/or couples caring for children tend to fall back into a gendered household task division.

#### Average marginal effects: Division of domestic tasks

	Division of domestic tasks		
	Male partner does more	Equal	Female partner does more
<b>Partner's work schedules</b>			
<i>Both work standard schedules</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>
Male partner works nonstandard	0.034** (0.012)	-0.002 (0.016)	-0.033+ (0.018)
Female partner works nonstandard	-0.018 (0.013)	-0.007 (0.022)	0.026 (0.023)
Both work nonstandard	0.031+ (0.016)	-0.024 (0.023)	-0.007 (0.025)
Observations	5,487		

Standard errors in parentheses  
 \*\*\* p<0.001, \*\* p<0.01, \* p<0.05, + p<0.1

## Relationship dissolution

Working weekend hours increases the probability of breaking up the relationship for men, relatively to working daytime hours. For women, weekend hours also significantly increase the separation likelihood, while working non-daytime hours (morning/evening/night hours) very significantly increases separation. Our results confirm that, after controlling for the socio-economical background, as well as religion, parental break-up, relationship satisfaction and duration, weekend shifts significantly increase the probability of separation for both men and women. Early morning, late evening and night shifts also increase the likelihood of breaking-up, but only for women. This result demonstrates that couples who presumably do not get to spend much time together, in the mornings, evenings or on weekends, will be more likely to separate. Hence, nonstandard work can be directly linked to poorer relationship quality.

Results on relationship dissolution clearly show that nonstandard work deteriorates relationship quality since it leads to a higher separation probability. This is in line with previous research results (Presser) and can mainly be explained by the fact that couples in which one partner works nonstandard hours (for example during the weekend) spend less time together and hence, have less opportunity to build a stable relationship. Next step will be to include variable related to the division of housework.

### Logistic regression: Relationship dissolution

	(1) Total	(2) Women	(3) Men
<b>Nonstandard workhours</b>			
<i>Daytime workhours</i>	<i>Ref.</i>	<i>Ref.</i>	<i>Ref.</i>
Morning/evening/night hours	0.475* (0.202)	1.083*** (0.240)	-0.527 (0.408)
Weekend hours	0.594*** (0.164)	0.530* (0.218)	0.750** (0.252)
Predictably changing hours	0.135 (0.182)	0.300 (0.243)	-0.0709 (0.276)
Unpredictably changing hours	0.0400 (0.222)	0.109 (0.313)	0.00131 (0.317)
Observations	10,508	5,562	4,946

Standard errors in parentheses  
 \*\*\* p<0.001, \*\* p<0.01, \* p<0.05