

Overtime, work-life balance, and the use of family-friendly policies among employees in Europe

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Abstract

In recent years, companies across Europe show an increase in overtime. In addition, this development ensured employers show more attention to employees' work-life balance (in short, 'WLB'). In this article, we argue that most of the previous studies did not take into account the adoption of family-friendly policies. It could be the case that family-friendly policies alleviate the damage of overtime work and improve WLB. To test our expectations, we made use of the Job-Demand Resources model (JD-R model), border theory, and the European Sustainable Workforce Survey, which included N=7,455 employees in 9 European countries. We investigate whether the relationship between overtime and WLB differ by employee's use of flexibility, parental leave, and child policies. Contrary to our expectations, findings show that the use of flexibility policies matter for WLB but strengthen the negative effect of overtime on WLB instead of reducing it. This article, therefore, implies a new direction of the JD-R model and organizational policymaking.

Keywords: overtime; work-life balance; organizational family-friendly policy; Job-Demands Resources model; Border Theory

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Introduction

In recent years, researchers have become more interested in the work-life balance of employees in Europe (Lewis, Gambles, & Rapoport, 2007). One of the reasons is the increase in overtime (Karlson et al., 2009; Mizunoya, 2010). According to previous research, overtime causes many physical and mental health problems, such as fatigue, obesity, and a decrease in subjective well-being (Van der Hulst, 2003; Geurts & Sonnetag, 2006; Härmä, 2006). In addition, overtime also leads to a number of conflicts in the private sphere. For instance, one can think of a lack of time to care for the children, to perform activities with relatives, and to have leisure and relax (Berg, Kalleberg, & Appelbaum, 2003; Presser, Parashar, & Gornick, 2008; Bianchi & Milkie, 2010).

Many fields of studies have investigated the relationship between overtime and work-life balance (in short, 'WLB') (Holly & Mohnen, 2012). In our paper, we define WLB as "*time to care and be engaged in family life and leisure time for oneself*" (Hobson et al., 2011, p. 170). Most of the previous papers have found a negative relationship between overtime and WLB (Peters, den Dulk, & van der Lippe., 2009; Pichler, 2009; White et al., 2003; Gallie & Russell, 2009; Crompton & Lyonette, 2006; Losoncz & Bortolotto, 2009). According to prevalent theories (see among others, Bakker & Demerouti, 2007: Job-Demand Resource model; Voydanoff, 2004; 2005a; 2005b: "fit and balance" perspective; Wepfer et al., 2018: Border theory) the negative effect of overtime on WLB mainly exists because overtime disturbs the ability to meet the demands of the environment (i.e., other obligations such as hobbies, family, and friends), which causes employees to cut time on other activities that are not required like leisure or family activities.

However, most research does not answer whether this relationship differs by the use or non-use of organizational family-friendly policies. As companies in Europe have paid more attention to employees' perceived WLB in recent years, those organizations introduce a number of family-friendly policies to help employees combine professional, family, and private life together, such as working-time arrangements, leave, and childcare policies (Hobson, 2014, van Breeschoten, 2019; Chung, 2020; Plantenga & Remery, 2005). Although previous studies investigated whether the use of family-friendly policies improves employees' WLB, the results still seem to be mixed (Chung, 2020; Kossek & Nichol, 1992; Beauregard & Henry, 2009; Butts et al., 2013). One of the reasons is that they did not include all types of family-friendly policies because of the data limitation. Also, as mentioned earlier, at the time that overtime work is present and causes many severe problems, whether using family-friendly policies could help employees buffer the damage of overtime on WLB is worth further examining and beneficial

for policymaking.

To solve both the existent gap in current literature and fulfill the need for more research into the use of organizational family-friendly policies, we try to answer the following research question: *“To what extent is overtime related to work-life balance for employees in Europe, and how does this relationship differ by the use or non-use of family-friendly policies within the companies they work for?”*

Our contribution is twofold. First, we contribute to the current scientific literature on overtime work and work-life balance by “bringing the organization back” (Kalleberg, 2009). In this study, given that organizational policies may have a more direct impact on employees’ lives, we focus on the use of organizational family-friendly policies instead of the national-level policies (van der Lippe et al., 2019). Second, using a unique large-scale and multilevel dataset of the European Sustainable Workforce Survey (ESWS), we are able to investigate all three types of family-friendly policies together to have a more complete picture of the relationship among overtime, WLB, and the use of family-friendly policies.

First, we discuss the theory and previous findings regarding the relationship between overtime and WLB. Second, we introduce different types of family-related policies within companies and their consequences on WLB as well as the interaction effect in which we examine the change of association between overtime and WLB for the use or non-use of family-friendly policies. Third, we give an overview of the methods and present our results. Finally, this paper will end with a summary and discussion.

Theoretical framework

Job-Demand Resource model

In the literature, we can find various theories to explain and predict the relationship between overtime and WLB. Examples include the Effort-recovery model (Meijman & Mulder, 1998), the demand-control model (Karasek, 1979), and the Effort-reward imbalance model (Siegrist, 2001). However, the Job Demands-Resources model (JD-R model) is most important because this theory can be applied to both the job strain on employees (read 'overtime') as well as the implementation of family-friendly policies and its effect on employees' perceived WLB (Bakker & Demerouti, 2007).

According to Bakker and Demerouti (2007), the JD-R model classifies related working conditions into two categories: demands and resources. On the one hand, job demands refer to physical and mental efforts or skills to complete different aspects of a job at a certain cost. In

other words, the balance between employees' well-being due to work efforts, and the effect of this on other domains such as time for family and friends or hobbies. On the other hand, job resources refer to jobs that may meet job demands, reduce costs, and stimulate personal growth (Schieman et al., 2009; Bakker & Demerouti, 2007).

Previous research supports this model. Job demands like extra physical and mental effort come at the expense of other things such as family and friends or hobbies. For example, Van der Hulst (2003), Geurts, and Sonnetag (2006), and Härmä (2006), found that overtime leads to physical and mental complaints such as fatigue, obesity, and a decrease in subjective well-being, something that is negatively related to employees' perceived WLB. Also, Berg et al. (2003), Presser et al. (2008), Bianchi and Milkie (2010), Peters et al. (2009), Haar et al. (2019), Pichler (2009), and Schieman et al (2009) found out that problems in the private sphere mainly occur due to a time conflict regarding work.

Border theory

Although the JD-R model answers the direct relationship between overtime and WLB, it does not explain the underlying mechanism. We, therefore, decided to extend this model with the “fit and balance” perspective. According to Voydanoff (2004; 2005a; 2005b), the central idea is that people will perceive work-family fit and balance when demands of the environment and resources match with each other. If demands of the environment exceed the ability of resources could cope with, strain emerges (Harr et al., 2018). In line with this reasoning, overtime disturbs the ability to meet the demands of the environment (i.e., other obligations such as hobbies, family, and friends), which leads to a peculiar dilemma: employees need to decide whether they spend less time on work (which is, in the case of overtime, not possible) and, therefore, cut time on other activities not required like leisure or family activities. Ultimately, this results in a decrease in employees' self-reported WLB.

However, the fit and balance perspective does not act isolated but correlates with border theory (Wepfer et al., 2018). From its perspective, borders exist between two different spheres: work and family. To achieve work-family balance, individuals have two strategies to shape and transit between these two domains as cross-borders. First, the segmentation strategy demonstrates that boundaries are inflexible and impermeable, so human activities are hard to transit from one to another domain. Second, integration strategy is the opposite, and it allows activities to transmit between two domains (Wepfer et al., 2018).

Given overtime indicates that people need to work for long hours out of contract time, the borders may become more permeable and flexible. Employees may start to work at home,

or they use previous nonwork time to accomplish work-related tasks. Even if they are still at their workplaces, they need to handle a lot of demands from another domain, such as arranging how to pick up children from school. This situation leads to a phenomenon called “role blurring” in which people experience a hard time distinguishing one’s work roles from another domain’s role. Subsequently, employees report a decrease in their perceived WLB (Allen et al., 2014; Haar et al., 2018).

Although not many studies have investigated this ‘spillover-effect’ in which employees need to cut time spend on other activities outside work, a qualitative study conducted by Gyanchandani (2017) on newly employed officers indeed showed that an increase of overtime results in more imbalance between different domains. Ultimately, this imbalance between different domains was correlated with a strong decrease in officers’ self-reported WLB.

Replication hypothesis

All in all, previous studies have mainly found that overtime negatively affects work-life balance (Peters & den Dulk & van der Lippe., 2009; Pichler, 2009; White et al., 2003; Gallie & Russell, 2009; Crompton & Lyonette, 2006; Losoncz & Bortolotto, 2009). The negative effect of overtime also holds for a long working week and high working-time tempo (Anttila et al., 2015). However, in a cross-national study by Haar et al. (2019), they only found evidence that the negative effect of overtime hours related to work-life balance in French and Italy instead of New Zealand and Spain. To strengthen claims of causality we want to extend existent studies with more employees from multiple countries. Hereby, we replicate the following hypothesis (H1): *overtime has a negative effect on employees' self-reported WLB.*

The use of organizational family-friendly policies

Definition of organizational family-friendly policies

We first define family-friendly policies as “policies that directly support the combination of professional, family, and private life” (Chung, 2020; Plantenga & Remery, 2005). There are three forms of family-friendly policies: (a) employee-friendly working-time arrangements such as flexible work and schedule control (Chung & Tijdens, 2013; Lewis & Humbert, 2010), (b) arrangements provided by companies in which workers take a longer period off work to take care of their responsibilities outside of work, such as maternity/paternity, parental and career’s leave, and (c) services provided by the company, such as kindergarten or other childcare amenities. Although these organizational policies are designed to help employees balance work and life better (van Breeschoten, 2019), they may have a more direct impact when the policies

are used in practice because some employees may not have opportunities or do not even know these organizational policies. In this study, we, therefore, mainly focus on the use of organizational family-friendly policies by employees instead of the availability of these policies.

The use of family-friendly policies and work-life balance

Job resources are another important part of the JD-R model, which intends to meet the requirements of job demands and reduce costs (Bakker & Geurts, 2004; Bakker & Demerouti, 2007). Normally, it includes support, autonomy, and feedback from work environments, colleagues, or superiors. Job resources are assumed to be related to lower levels of WLB by providing motivation and tools for employees to cope with work demands and enhance role performance (Nomaguchi & Neal, 2019; Bakker & Geurts, 2004; Voydanoff, 2004). A few studies view family-friendly policies as a kind of boundary-spanning resource (Voydanoff, 2004). From the perspective of border theory and role blurring, the use of family-friendly policies ensures that the segmentation strategy increases because people need to worry less (or not) about the capability to meet the expectations of the families' needs (Sigry & Lee, 2016). They also ensure that the boundary between the private domain and work domain is stronger and clearer (Clark, 2000; Wepfer et al., 2018; Desrochers & Sargent, 2004). We further apply these two theories to explain how the use of family-friendly policies is related to WLB.

First, if employees use the flexibility policies that decide when they start and end their work on their own, they could arrange their schedule better. For example, for those employees who need to care for family responsibilities and work more efficiently in the evening, they could leave more energy and time for family and friends in the daytime by using the flexibility policies. In other words, flexibility facilitates the employee's ability to enhance their perceived control over managing the work-life boundary (Voydanoff, 2004).

Second, employees with young children could use parental leave policies to spend less time in the workplace but more time in the family domain. They could also reduce the costs of time and energy as a parent, with the result that there is less pressure to exceed the needs of the family (Schieman et al., 2009). Third, except for reducing time and energy as same as parental leave policies, childcare policies also provide financial resources to support employees to reconcile between work and life. It is easier for people to separate their different social roles as a parent and an employee using these two types of policies, which results in a better WLB eventually.

These theories lead to hypothesis 2: *the uses of flexibility policies (2a), parental leave policies (2b), and childcare policies (2c) are positively related to employees' self-reported WLB.*

In general, previous studies have suggested and found that users of family-friendly policies, such as childcare policies, are more successful in managing work and life demands and experience a higher level of work-life balance (Kossek & Nichol, 1992; Beauregard & Henry, 2009; Butts et al., 2013). In a study for women employed in the service sector (Baxter & Chesters, 2011), researchers found that only the use of flexible start and finish times is positively related to WLB rather than other family-friendly arrangements such as childcare and job-sharing. However, Chung (2020) summarized that there is mixed evidence in previous literature to support the use of flexible working policies is positively related to WLB because flexible working could also increase work longer overtime and worsen WLB.

The moderating role of organizational family-friendly policies

In addition to a direct association between family-friendly policies and WLB, the buffer function of resources indicates this relationship may differ by whether an organization has family-friendly policies. Many studies related to the JD-R model have argued that job resources may buffer the negative impact of job demands on employee's well-being (Karasek, 1979; Bakker & Demerouti, 2007), especially for social support that helps employees accomplish the work tasks more easily and protect them from stressful experience resulted from high job demands. Previous studies also support that resources could alleviate the negative effect of demands on employees' well-being (Bakker et al., 2007; Hu et al., 2011; Bakker et al., 2010; Taris & Schaufeli, 2015).

As we discussed before, when employees work overtime, they are hard to fulfill their social roles as family members because they may have less mental and physical energy at home after a long working day (Voydanoff, 2004). But if they use the flexibility policies, for instance, a large part of the burden resulting from overtime is removed because they may arrange the overtime workload and rest time on their own. When they feel stressed caused by overtime, they could take a short break instead of working continuously.

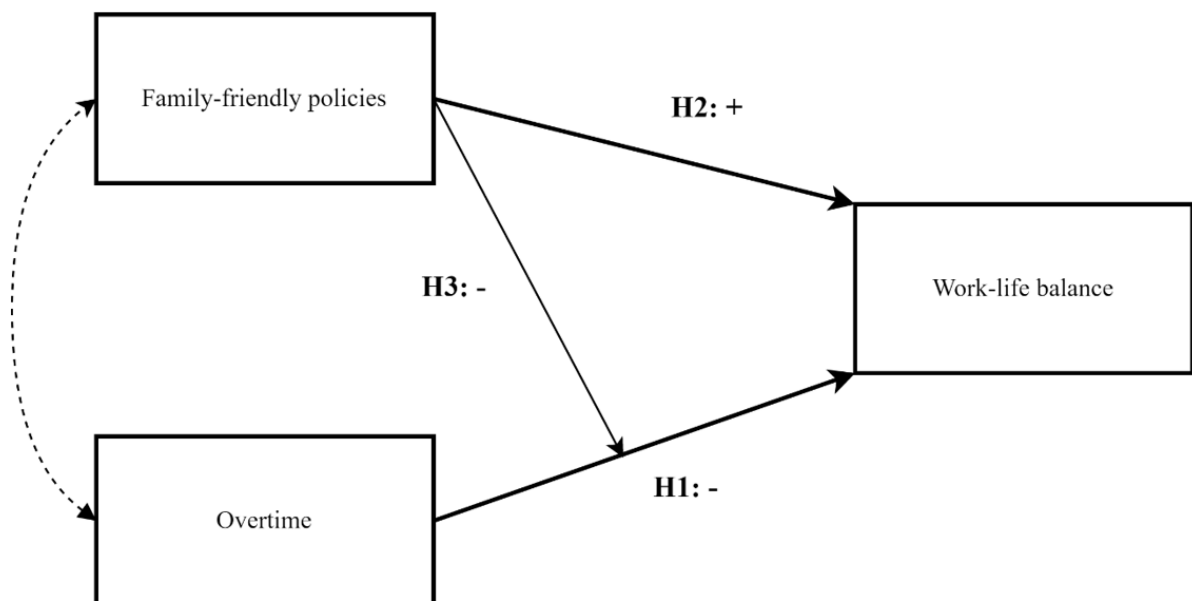
This situation also applies to people who use parental leave and childcare policies. After overtime work, these policies allow employees to compensate time and energy costs, such as taking a leave period or reducing costs on childcare. In other words, the use of these policies buffers the damage of overtime work (e.g., fatigue, obesity, and a decrease in subjective well-being) to have a recovery and balance work and life better (Van der Hulst, 2003; Geurts & Sonnetag, 2006; Härmä, 2006). Overall, in line with the JD-R model, we expect that hypothesis 3: *the relationship between overtime and WLB is less negative for employees who use the flexibility policies (3a), parental leave policies (3b), and childcare policies (3c).*

We have not found any studies that examined the moderating role of the use of organizational family-friendly policies on overtime and WLB. However, in a study on work-nonwork interference, Schieman and his colleagues (2009) included the interaction of resources on the association between demands and work-nonwork interference. They found that the positive relationship between job pressure and interference is weaker among individuals who control the pace of their work, which is similar to the use of flexibility policies. This study indicates that the same interaction effect of the use of family-friendly policies as an important support resource may be found when examining the negative effect of overtime on WLB.

An overview of all our expectations can be found in Figure 1.

Figure 1

The conceptual model with both the meso-level predictor family-friendly policies as well as micro-level predictor overtime on micro-level outcome work-life balance (WLB).



Note. We did not hypothesize the relationship between family-friendly policies and overtime.

Data and Methods

Data

To answer our research question, we used the European Sustainable Workforce Survey (ESWS), which is a multiactor organizational survey conducted within both private as well as public organizations in Bulgaria, Finland, Germany, Hungary, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom (Van der Lippe et al., 2016). The ESWS chose establishments

as the primary sampling unit that belong to the six occupational industries (manufacturing, health care, higher education, transport, financial services, and telecommunications) and made a distinction between those with 20 to 99, 100 to 250, and 250+ employees. The ESWS used stratified purposeful sampling and randomly chose several organizations from each sampling cell. If an establishment within a particular industry and size group refused to participate in the study, a matching strategy was used to include a new organization within the same industry and within the same size category.

A total of 11,011 employees nested in 259 organizations participated in the survey. The participation rate at the organization level varied from 5 per cent to 20 per cent across countries. We used the listwise deletion strategy and excluded all the subjects with missing values for at least one of the variables in our analysis (including confounders). In particular, 2,012 employees had no information on whether they worked overtime. This resulted in a total analytical sample of 7,455 employees in 243 organizations in 9 countries.

Measures

Dependent variable

The dependent variable in our study is work-life balance. WLB was measured through a scale with three items regarding how job influences respondents' private life. The ESWS asked how often these following situations happen: "a) You do not have the energy to engage in leisure activities with your family or friends because of your job? b) You have to work so hard that you do not have time for any of your hobbies? c) Your work obligations make it difficult for you to feel relaxed at home?". A 5-point Likert scale was provided from "always" to "never" (1-5). These items are part of the Survey Work-home Interaction-NijmeGen Scale designed by Geurts et al. (2005). To determine whether all items measure the same underlying concept, we used the exploratory factor analysis, and results showed only one underlying factor (eigenvalue > 1). The assessment of reliability also indicated that this scale has a high level of reliability (Cronbach's alpha = 0.86). So, we took the average values of all three items and generated a new variable called "work-life balance". A higher score indicates a higher level of WLB.

Independent and moderating variables

Overtime, as the first independent variable, was calculated by two questions. The survey asked employees about how many contract working hours in a week and how many actual working hours in a week for their organizations separately. We subtracted the actual working hours from contract working hours to obtain the overtime working hours in a week. The negative values

were recoded as zero, which demonstrate that they do not work overtime.

For the use of family-friendly policies, we mainly focus on three types: a) flexibility policies; b) parental leave policies; c) childcare policies (Chung, 2020). First, we used the question “In the past 12 months, did you decide your own starting and finishing time?” to measure whether employees use the flexibility policies. It was recoded as 1 if employees said yes and 0 if employees said no. Second, the use of parental leave policies was measured by the question “Did you use parental leave arrangements in connection with the birth of their youngest child?” (0=no, 1=yes). Third, the use of childcare policies was measured by a multiple-choice question, which asked “Do you make use of childcare assistance offered by the organization (or have you done so in the past)?”. We recoded it as 1 if employees used one or more types of childcare assistance (financial assistance, childcare at the workplace, and assistance finding or arranging childcare) and 0 if employees did not use any childcare assistance. The last two variables had many missing values because of several reasons: no children younger than 18, the organization does not provide such policies, or they do not know whether the organization provides these policies. We substituted those missing values by 0 because they also did not use these policies and avoided the influence of reducing sample size.

Control variables

We control for several variables which may have an influence on WLB indicated in the previous literature (Pichler, 2009; Haar et al., 2019). First, at the individual level, we controlled gender, age, the log of income, education, living with a partner, living with children, age of the youngest child, tenure at the organization, and supervisory position. Age and age squared are both included to control for the nonlinear association as indicated in previous studies as well as our data analysis (van der Lippe et al., 2019; van Breeschoten, 2019). Education was measured by eight categories of employees’ highest educational level from “not completed primary education” to “doctoral degree”. We treat it as a continuous variable in regression models. The questions “Do you currently live with a partner?” and “Do you have children living at home?” was constructed to show whether employees live with partner and children respectively. The age of the youngest child was also used to control for the association between family environments and WLB. Tenure at the organization was measured by “How many years have you been working for this organization?” and we converted tenure in months to tenure in years for those who have been working in the organization for less than 1 year. We also included a variable to measure whether the respondent has a supervisory position.

At the organizational level, based on previous studies (van der Lippe et al., 2019; van

Breeschoten, 2019), we controlled for the log of the size of establishment, whether it is a public/private/mixed/other organization, and industries (manufacturing, health care, higher education, transport, financial services, and telecommunications). We also add the dummies of the country to control the differences among the nine European countries.

Analytical strategy

To test our hypotheses, multiple linear regression was used in Stata 14¹. We opted for a multiple linear regression because of two reasons. First, the outcome variable of work-life balance (WLB) is continuous ranging from 1 to 5. Second, the regression model included multiple explanatory factors such as the independent variable ‘overtime’, moderating variable ‘the use of family-friendly policies’, and several confounders.

Before we ran our analysis, we checked whether there were outliers, correct measurement levels, and multicollinearity. Because we used linear regression, we also made sure that the following assumptions were met: (1) there is a linear relationship between Y (WLB) $\sim X$ (overtime); Y (WLB) $\sim M$ (the use of family-friendly policies), (2) there are independent residuals, (3) normal distribution of the residuals, and (4) there is homoskedasticity. We did not find any violations.

In Model 1, we included all variables, i.e., overtime, the use of three family-friendly policies, and other control variables, to test Hypothesis 1 and 2a–2c. In Model 2–4, we add the interaction of the use of three types of family-friendly policies separately to test Hypothesis 3a–3c to see whether the association between overtime and WLB depends on the use of different family-friendly policies.

Results

Descriptive Results

Table 1 shows that the average value of work-life balance is not very low ($\bar{x}=3.67$), which means that employees in these nine European countries normally experience a relatively good balance between work and life overall. Table 1 also shows that employees perform, on average, approximately more than 3 hours a week of overtime. Moreover, the use of family-friendly policies is also different for each type. 44% of people used the flexibility policy in the past 12 months before, but only 12% and 3% of people used organizational parental leave and childcare policies respectively.

¹ Replication files can be found at: [Research-Project-1-SASR04-/SASR4/Final-Paper](#) . [GitHub](#)

Table 1*Descriptive statistics (N = 7455)*

	<i>M</i>	<i>SD</i>	<i>Range</i>
Work-life balance	3.67	0.93	1-5
Overtime	3.31	5.44	0-52
Flexibility policy	0.44	-	-
Parental leave policy	0.12	-	-
Childcare policy	0.03	-	-
<i>Individual characteristics</i>			
Female	0.56	-	-
Age	41.64	10.86	14-77
Educational level	5.41	1.42	1-8
Income in Euro (log)	7.12	0.82	0.25-10.43
Living with partner	0.73	-	-
Living with children	0.49	-	-
Age of youngest child	10.28	5.26	0-45
Tenure (year)	10.47	9.78	0-55
Supervisory	0.19	-	-
<i>Organizational characteristics</i>			
Size(log)	5.61	1.39	2.20-9.21
<i><u>Sector</u></i>			
Public	0.36	-	-
Private	0.55	-	-
Mixed	0.03	-	-
Other	0.06	-	-
<i><u>Industry</u></i>			
Manufacturing	0.24	-	-
Health care	0.23	-	-
Higher education	0.16	-	-
Transport	0.13	-	-
Financial services	0.14	-	-
Telecommunication	0.10	-	-
<i><u>Country</u></i>			
Bulgaria	0.13	-	-
Finland	0.07	-	-
Germany	0.10	-	-
Hungary	0.12	-	-
Netherlands	0.26	-	-
Portugal	0.12	-	-
Spain	0.06	-	-
Sweden	0.08	-	-
UK	0.07	-	-

Direct effects

Table 2 presents the results of our multiple linear regression model on the dependent variable work-life balance. We found support for our first hypothesis that overtime has a negative effect on employees' perceived WLB. Controlling for confounders such as gender, age, education level, size of the organization, and origin of the country (see for the complete list of control variables M1 in Table 2), WLB decreased, on average, by $-.039$ for each additional hour of overtime, and this result was statistically significant ($p < .001$; see also M1 in Table 2). Also, our first model explained about ten per cent of the variance in WLB. We calculated that the Pearson Correlation Coefficient between overtime and other explanatory variables – in this case, both the control variables and the use of family-friendly policies – on WLB was around $.318$. It was derived from the square root of explained variance ($\sqrt{0.101}$; see also M1 in Table 2). According to Field (2017), this means a 'weak' association.

The second hypothesis assumed a positive effect of the use of family-friendly policies on WLB. We found that the flexibility dimension was the only policy with a positive effect on WLB ($B = .069, p < .010$). The use of flexible policies led, on average, to an increase of $.069$ in employees' perceived WLB (see also M1 in Table 2). Employees that made use of parental leave and/or childcare policies within the companies they work for did not report an increase of WLB (parental leave policy: $B = .057, p = .117$; childcare policy: $B = .068, p = .325$; see also M1 in Table 2). In short, we found support for Hypothesis 2a instead of 2b and 2c. Employees that made use of flexible arrangements reported a higher WLB but the positive effect on WLB was not present for employees that used parental leave and/or childcare arrangements.

Moderating effect

Finally, we hypothesized that there was a less negative relationship between overtime and WLB when employees use family-friendly policies. This expectation has been rejected. First, it was found that the interaction between overtime and the use of flexibility arrangements was negative and significant ($B = -.009, p < .050$; see also M2 in Table 2). This means that the negative effect of overtime on WLB is more negative when an employee uses flexibility arrangements. The main effect of overtime on WLB changed from $-.035$ without interaction with the use of flexible arrangements to $(-.035 - .009 =) -.044$ when there was an interaction with the use of flexibility arrangements.

Table 2

Estimates of multiple linear regression on work-life balance (N = 7455)

	M1	M2	M3	M4
	<i>B (SE)</i>	<i>B (SE)</i>	<i>B (SE)</i>	<i>B (SE)</i>
Overtime	-0.039*** (0.002)	-0.035*** (0.003)	-0.038*** (0.002)	-0.039*** (0.002)
Flexibility policy	0.069** (0.025)	0.100*** (0.028)	0.068** (0.025)	0.069** (0.025)
Parental leave policy	0.057 (0.037)	0.057 (0.037)	0.093* (0.041)	0.057 (0.037)
Childcare policy	0.068 (0.069)	0.069 (0.069)	0.069 (0.069)	0.088 (0.083)
Flexibility policy × overtime		-0.009* (0.004)		
Parental leave policy × overtime			-0.013 (0.017)	
Childcare policy × overtime				-0.005 (0.012)
<i>Individual characteristics</i>				
Female	-0.083*** (0.023)	-0.084*** (0.023)	-0.084*** (0.023)	-0.083*** (0.023)
Age	-0.021* (0.008)	-0.021** (0.008)	-0.021* (0.008)	-0.021* (0.008)
Age ²	0.000** (0.000)	0.000** (0.000)	0.000** (0.000)	0.000** (0.000)
Educational level	-0.012 (0.009)	-0.012 (0.009)	-0.012 (0.009)	-0.012 (0.009)
Income in Euro (log)	-0.081*** (0.024)	-0.082*** (0.024)	-0.082*** (0.024)	-0.082*** (0.024)
Living with partner	-0.054* (0.025)	-0.052* (0.025)	-0.053* (0.025)	-0.054* (0.025)
Living with child	-0.002 (0.026)	-0.003 (0.026)	-0.002 (0.026)	-0.002 (0.026)
Age of youngest child	0.003 (0.002)	0.003 (0.002)	0.003 (0.002)	0.003 (0.002)
Tenure (year)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Supervisory	-0.098*** (0.029)	-0.096*** (0.029)	-0.097*** (0.029)	-0.098*** (0.029)
<i>Organizational characteristics</i>				
Size (log)	-0.002 (0.009)	-0.003 (0.009)	-0.002 (0.009)	-0.002 (0.009)

(Continues)

Table 2 (Continued)

	M1	M2	M3	M4
	B (SE)	B (SE)	B (SE)	B (SE)
Sector (ref: Public)				
Private	-0.057 (0.034)	-0.058 (0.034)	-0.058 (0.034)	-0.057 (0.034)
Mixed	0.024 (0.071)	0.023 (0.071)	0.026 (0.071)	0.024 (0.071)
Other	-0.086 (0.050)	-0.084 (0.050)	-0.087 (0.050)	-0.087 (0.050)
Industry (ref: Manufacturing)				
Health care	-0.032 (0.039)	-0.031 (0.039)	-0.032 (0.039)	-0.032 (0.039)
Higher education	-0.065 (0.045)	-0.062 (0.045)	-0.065 (0.045)	-0.065 (0.045)
Transport	-0.024 (0.037)	-0.023 (0.037)	-0.024 (0.037)	-0.024 (0.037)
Financial services	0.048 (0.037)	0.047 (0.037)	0.048 (0.037)	0.048 (0.037)
Telecommunication	0.045 (0.040)	0.044 (0.040)	0.045 (0.040)	0.045 (0.040)
Country (ref: Bulgaria)				
Finland	0.550*** (0.069)	0.545*** (0.069)	0.553*** (0.069)	0.551*** (0.069)
Germany	0.149* (0.062)	0.144* (0.062)	0.150* (0.062)	0.149* (0.062)
Hungary	0.160*** (0.044)	0.159*** (0.044)	0.161*** (0.044)	0.160*** (0.044)
Netherlands	0.524*** (0.054)	0.525*** (0.054)	0.524*** (0.054)	0.524*** (0.054)
Portugal	0.392*** (0.049)	0.393*** (0.049)	0.394*** (0.049)	0.392*** (0.049)
Spain	0.261*** (0.061)	0.259*** (0.061)	0.262*** (0.061)	0.261*** (0.061)
Sweden	0.491*** (0.065)	0.489*** (0.065)	0.492*** (0.065)	0.491*** (0.065)
UK	0.404*** (0.064)	0.407*** (0.064)	0.407*** (0.064)	0.404*** (0.064)
constant	4.560*** (0.206)	4.554*** (0.206)	4.558*** (0.206)	4.560*** (0.206)
R^2	0.101	0.101	0.101	0.101
BIC	19639.5	19643.0	19645.0	19648.2

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

This means that, on average, for every one unit increase of overtime WLB decreases by -.044, given that an employee uses flexibility arrangements, while employees that do not use flexibility arrangements experience, on average, a decrease of -.035 on WLB for every unit increase of overtime.

Second, both the use of parental leave policies and childcare policies did not appear to have a negative effect on the association between overtime and WLB (parental leave policy \times overtime: $B = -.013$, $p = .063$; childcare policy \times overtime $B = -.005$, $p = .661$; see also M3 – M4 in Table 2). In other words, employees who use parental leave policies and/or childcare policies do not report a significantly higher or lower WLB when their overtime increases relative to employees that do not use parental leave policies and/or childcare policies.

All interaction models (M2, M3, and M4) showed no significant improvement in the goodness of fit compared to M1. The BIC did not become smaller, but larger (Field, 2017). In addition, the explained variance remained around ten per cent (see also Table 2). A visual representation of the interaction effect for each dimension of family-friendly policies, i.e., for both the use as well as non-use of flexibility arrangements, parental arrangements, and/or childcare arrangements, can be found in Figure 2.

Robustness checks

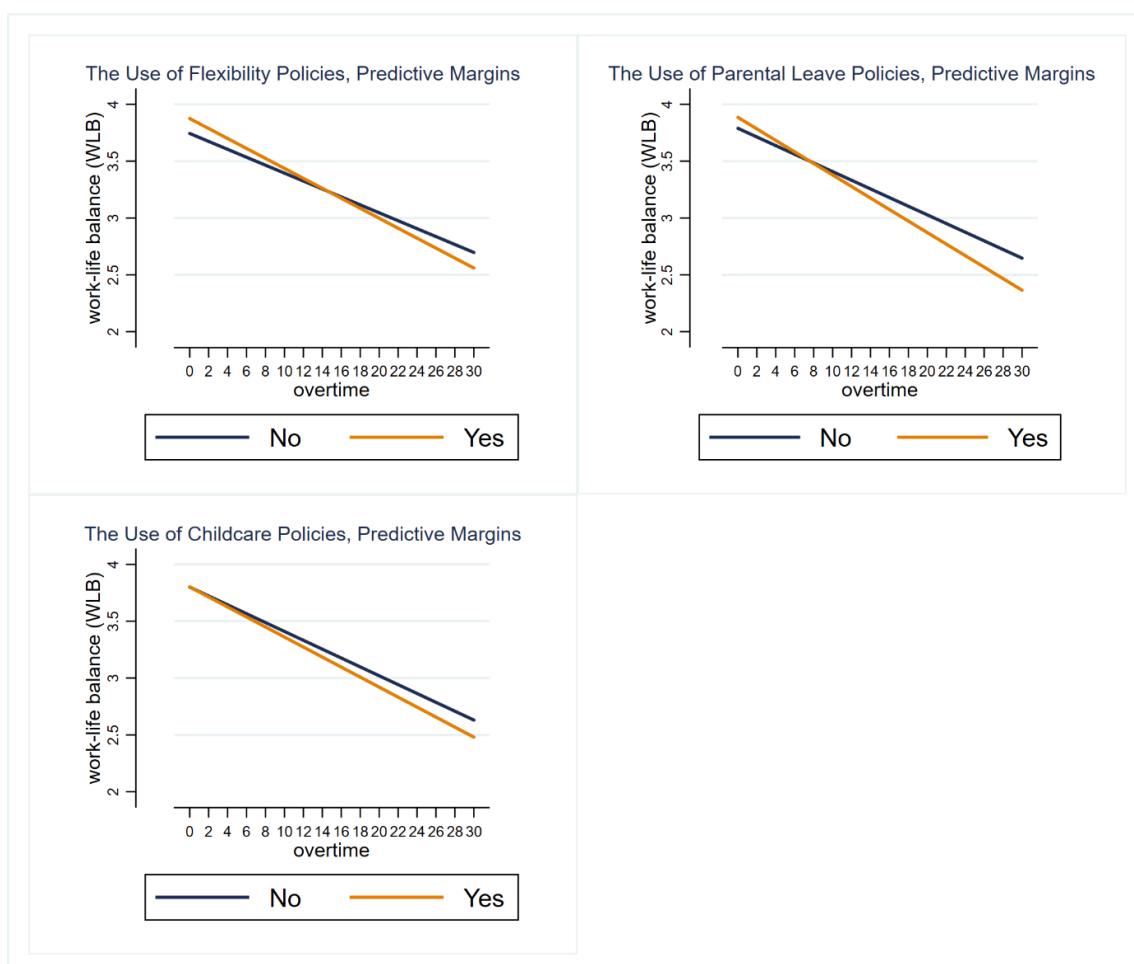
We performed several subsequent analyses to test the robustness of our analyses. First, the effects of the country dummies are significantly large as shown in Table 2. To test whether the result is driven by one country, we performed a jackknife procedure that excluded one country in turns. The results show that the negative effect of overtime on WLB is consistent with our analysis of the full sample. The use of flexibility policies is also positively related to WLB except for excluding Germany. But after excluding UK, Bulgaria, and Finland in turns, the use of parental leaves policy has a negative effect on the association between overtime and WLB. After excluding Germany, the Netherlands, and Spain in turn, the use of flexibility policy does not show any significant effect on the association between overtime and WLB.

We also clustered countries based on the welfare regimes. According to Esping-Andersen, countries in our dataset could be classified into three main types: social democratic countries (Finland and Sweden), conservative countries (Germany and the Netherlands), and others (non-classifiable ones). We test whether results were driven by any welfare state regimes because we assumed that welfare state regimes, especially for social democratic and conservative countries, create different policies on the government level, which may affect both overtime as well as work-life balance. The moderating effect of flexibility policy was not found

in social democratic countries. The use of parental leave policies had a positive effect on WLB instead of flexibility policies in conservative countries. Although it is hard to explain the reasons in our study, results indicate that large country differences exist in the moderating effects of the use of family-friendly policies.

Figure 2

Interaction effect between different levels of family-friendly policies and overtime separated by their use [1=yes] and non-use [0=no] on perceived work-life balance (WLB).



Third, given the parental leave policy and childcare policy are used by employees with young children, it is suitable to choose a sub-sample of only parents with children. Following van Breeschoten (2019)'s arguments, to make sure that employees have the opportunity to use these family-friendly policies recently and organizational factors have not changed over time, we decided to conduct the analysis only on employees with children under four. The results were similar to our analysis on the full sample, giving us confidence that the results are robust.

Conclusion and discussion

In this paper, we examined to what extent overtime is related to work-life balance for employees in Europe, and how this relationship differs by the use or non-use of family-friendly policies within the companies they work for. Using the European Sustainable Workforce Survey (ESWS), we were able to include all three types of family-friendly policies to investigate the role of the use of organizational policies, overtime, and work-life balance from a more complete picture. We found consistent evidence to support the negative effect of overtime on WLB as previous studies did (Peters et al., 2009; Pichler, 2009; White et al., 2003; Gallie & Russell, 2009; Crompton & Lyonette, 2006; Losoncz & Bortolotto, 2009). But more importantly, we contribute to relevant studies and theory by connecting organizations to employees' lives closer and found that the use of organizational flexibility policies has an important effect on the relationship between overtime and WLB.

The most important finding of our paper is that the negative effect of overtime on WLB is even stronger for those employees who use organizational flexibility policies, which is opposite to our expectation. One of the reasons is probably the characteristics of flexible policy. Flexibility policies are, in line with the Job-Demand Resource model (JD-R model), resources that transfer support from work environments to the private sphere (Schieman et al., 2009; Bakker & Demerouti, 2007). However, when employees report overtime and simultaneously use flexibility policies, activities outside work may intervene with the demands of work, which is also similar to integration strategy saying that the boundaries become flexible and permeable (Wepfer et al., 2018). For example, parents who use flexibility policies could pick up their children during lunchtime but still have to comply with their future overtime, resulting in an increase of rescheduling in their agendas. Ultimately, this could result in the feeling of a double burden, and thus a decrease of their self-reported WLB. In other words, due to the use of flexible arrangements when already experiencing overtime employees cannot keep up with their rescheduled agendas, which could lead to having less energy, and, therefore, a decrease of perceived WLB.

Although the moderating role of flexibility policies is contradictory, we did find that only the use of flexibility policies could improve work-life balance. This finding is in line with the JD-R model and previous studies on flexibility and WLB (Schieman et al., 2009; Voydanoff, 2004; Baxter & Chesters, 2011). As we discussed before, using the flexibility policies could strengthen employees' ability to control schedule, get work done more easily, and relieve stress, which lead to a higher level of WLB (Kelly et al., 2018). Furthermore, when we combine the

two above findings, the interesting paradox of the flexibility policies shows a number of implications for further studies and policymaking. For the JD-R model, it is important to include the possibility that job resources may not buffer but strengthen the negative impact of job demands. As the use of flexibility policies is shown, the positive impact of resources may be transformed into demands and a double burden on employee's life under certain conditions, such as overtime. From the practical level, our findings suggest that if companies intend to provide flexible policies to improve employees' WLB, they also need to take into account the condition of overtime. Flexibility policies are not always sufficient enough to increase employees' WLB. Organizations should design other related policies, such as reducing overtime work, to avoid the opposite effect of flexibility policies.

However, our study has not been able to demonstrate that the uses of parental leave and childcare policies change the relationship between overtime and WLB, even when taking into account employees with kids under four years old. Hereby, it could be the case that policies on the government level intervene with policies on the organizational level. In other words, an employee could say that it does not use organizational policies but at the same time, it still enjoys the merits of government-level policies or combines both of them, which weakens the effect of organizational-level parental leave and childcare policies. As our robustness checks show, country differences lead to some different results of parental leave policies. These results may imply that future studies should also investigate the role of national-level policies and compare different countries. Furthermore, according to our descriptive results, the proportions of employees who use organizational parental leave and childcare policies are so low that may affect our results.

Our study has some limitations. First of all, the absence of a multilevel analysis makes it hard to compare the effects of organizational and national-level characteristics on WLB directly, which may be important because we are interested in the effect of organizational policies. Second, we are cautious about claiming causality because of the cross-sectional nature of our study. However, we believe that our conclusions still contribute to the literature because of the unique dataset (van der Lippe et al., 2019). We have already controlled as many individual and organizational factors that may influence WLB. Third, we only measured three dimensions of family-friendly policies using one question from the ESWS instead of other questions, such as working from home, maternity leave, and holiday leave. Therefore, it may be hard to extend our conclusions to apply for all family-friendly policies. Finally, we only calculated the number of overtime per week. Our results may be more robust if we also try to measure overtime as a dichotomous variable such as "working for over 40 hours in a week" which can be coded as 1

when a person agrees and 0 when a person does not agree. is zero).

Several questions remain to be answered for future research. First, different results between flexibility and parental leave and childcare policies indicate that they may have separate mechanisms rather than assume that they have the same effects as we argued in the theoretical framework. Future research could compare those distinctive policies using different theoretical arguments. Second, other researchers need to take more specific country-level factors into account such as welfare states regimes. Researchers also need to cover more other countries when studying the relationship between overtime, WLB, and the use of organizational policies. For instance, overtime is much more common in East Asia. According to Tsai et al. (2016), these societies even developed a so-called “overtime culture”. Our findings in six European countries may not be suitable for these kinds of societies. Third, future studies could investigate gender differences among the relationship between overtime, WLB, and the use of organizational policies. Women often face more burdens to handle with the balance between work and life than men. Family-friendly policies may, therefore, also have different impacts on the WLB between women and men (van Breeschoten, 2019).

References

- Allen, T., Cho, E., & Meier, L. (2014). Work–Family Boundary Dynamics. *Annual Review of Organizational Psychology and Organizational Behavior*, 1, 99–121.
<https://doi.org/10.1146/annurev-orgpsych-031413-091330>
- Anttila, T., Oinas, T., Tammelin, M., & Nätti, J. (2015). Working-Time Regimes and Work-Life Balance in Europe. *European Sociological Review*, 31(6), 713–724.
<https://doi.org/10.1093/esr/jcv070>
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*.
- Bakker, A. B., & Geurts, S. A. E. (2004). Toward a Dual-Process Model of Work-Home Interference. *Work and Occupations*, 31(3), 345–366.
<https://doi.org/10.1177/0730888404266349>
- Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology*, 99(2), 274.
- Bakker, A. B., Van Veldhoven, M., & Xanthopoulou, D. (2010). Beyond the demand-control model. *Journal of Personnel Psychology*.
- Baxter, J., & Chesters, J. (2011). Perceptions of work-family balance: how effective are family-friendly policies?. *Australian Journal of Labour Economics*, 14(2), 139-151.
- Beauregard, T. A., & Henry, L. C. (2009). Making the link between work-life balance practices and organizational performance. *Human resource management review*, 19(1), 9-22.
- Berg, P., Kalleberg, A. L., & Appelbaum, E. (2003). Balancing Work and Family: The Role of High-Commitment Environments. *Industrial Relations*, 42(2), 168–188.
<https://doi.org/10.1111/1468-232x.00286>
- Bianchi, S. M., & Milkie, M. A. (2010). Work and Family Research in the First Decade of the 21st Century. *Journal of Marriage and Family*, 72(3), 705–725.
<https://doi.org/10.1111/j.1741-3737.2010.00726.x>
- Butts, M. M., Casper, W. J., & Yang, T. S. (2013). How important are work–family support policies? A meta-analytic investigation of their effects on employee outcomes. *Journal of Applied Psychology*, 98(1), 1.
- Chung, H. (2020). Company-level family policies: Who has access to it and what are some of its outcomes? In *The Palgrave Handbook of Family Policy* (pp. 535–573). Palgrave Macmillan, Cham.
- Chung, H., & Tijdens, K. (2013). Working time flexibility components and working time regimes in Europe: Using company-level data across 21 countries. *The International Journal of Human Resource Management*, 24(7), 1418–1434.
- Clark, S. C. (2000). Work/family border theory: A new theory of work/family balance. *Human Relations*, 53(6), 747–770.
- Crompton, R., & Lyonette, C. (2006). Work-Life ‘Balance’ in Europe. *Acta Sociologica*, 49(4), 379–393. <https://doi.org/10.1177/0001699306071680>
- Desrochers, S., & Sargent, L. D. (2004). Boundary/Border Theory and Work-Family Integration. *Organization Management Journal*, 1(1), 40–48.
<https://doi.org/10.1057/omj.2004.11>
- Field, A. (2017). Discovering statistics using IBM SPSS statistics. sage.
- Gallie, D., & Russell, H. (2009). Work-family conflict and working conditions in Western Europe. *Social Indicators Research*, 93(3), 445–467.
- Geurts, S. A., Taris, T. W., Kompier, M. A., Dijkers, J. S., Van Hooff, M. L., & Kinnunen, U. M. (2005). Work-home interaction from a work psychological perspective:

- Development and validation of a new questionnaire, the SWING. *Work & Stress*, 19(4), 319-339.
- Geurts, S. A., & Sonnentag, S. (2006). Recovery as an explanatory mechanism in the relation between acute stress reactions and chronic health impairment. *Scandinavian Journal of Work, Environment & Health*, 482-492.
- Gyanchandani, R. (2017). A qualitative study on work-life balance of software professionals. *IUP Journal of Organizational Behavior*, 16(4), 53-67.
- Haar, J. M., Sune, A., Russo, M., & Ollier-Malaterre, A. (2019). A Cross-National Study on the Antecedents of Work-Life Balance from the Fit and Balance Perspective. *Social Indicators Research*, 142(1), 261-282. <https://doi.org/10.1007/s11205-018-1875-6>
- Härmä, M. (2006). Workhours in relation to work stress, recovery and health. *Scandinavian Journal of Work, Environment & Health*, 502-514.
- Hobson, B. M. (Ed.). (2014). *Worklife balance: The agency and capabilities gap* (First edition). Oxford University Press.
- Hobson, B., Fahlen, S., & Takacs, J. (2011). Agency and Capabilities to Achieve a Work-Life Balance: A Comparison of Sweden and Hungary. *Social Politics: International Studies in Gender, State & Society*, 18(2), 168-198. <https://doi.org/10.1093/sp/jxr007>
- Holly, S., & Mohnen, A. (2012). Impact of Working Hours on Work-Life Balance. *SSRN Electronic Journal*. Published. <https://doi.org/10.2139/ssrn.2135453>
- Hu, Q., Schaufeli, W. B., & Taris, T. W. (2011). The job demands-resources model: An analysis of additive and joint effects of demands and resources. *Journal of Vocational Behavior*, 79(1), 181-190.
- Karasek, R. A. (1979). Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign. *Administrative Science Quarterly*, 24(2), 285-308. <https://doi.org/10.2307/2392498>
- Karlson, A. K. Meyers, B. Jacobs, A., Johns, P., & Kane, S. K. (2009). Working overtime: Patterns of smartphone and PC usage in the day of an information worker, *Proc. 7th International Conference on Pervasive Computing* (Pervasive), 7, 398-405.
- Kelly, E. L., Moen, P., Oakes, J. M., Fan, W., Okechukwu, C., Davis, K. D., ... & Casper, L. M. (2014). Changing work and work-family conflict: Evidence from the work, family, and health network. *American sociological review*, 79(3), 485-516.
- Kinman, G., & Jones, F. (2008). A life beyond work? Job demands, work-life balance, and wellbeing in UK academics. *Journal of Human Behavior in the Social Environment*, 17(1-2), 41-60.
- Kossek, E. E., & Nichol, V. (1992). The effects of on - site child care on employee attitudes and performance. *Personnel psychology*, 45(3), 485-509.
- Lewis, S., & Humbert, A. L. (2010). Discourse or reality? "Work-life balance", flexible working policies and the gendered organization. *Equality, Diversity and Inclusion: An International Journal*.
- Losoncz, I., & Bortolotto, N. (2009). Work-life balance: The experiences of Australian working mothers. *Journal of Family Studies*, 15, 122-138. <https://doi.org/10.5172/jfs.15.2.122>
- Mizunoya, T. (2002). An international comparison of unpaid overtime work among industrialized countries. ILO% International labor Organization. Retrieved from <http://www.ilo.int/public/english/bureau/stat/download/articles/2002-3.pdf>
- Meijman, T. F., & Mulder, G. (1998). Psychological Aspects of Workload. In *A Handbook of Work and Organizational Psychology*. Psychology Press.
- Nomaguchi, K., & Fetto, M. N. (2019). Childrearing Stages and Work-Family Conflict: The Role of Job Demands and Resources. *Journal of Marriage and Family*, 81(2), 289-307. <https://doi.org/10.1111/jomf.12521>

- Peters, P., Den Dulk, L., & Van Der Lippe, T. (2009). The effects of time-spatial flexibility and new working conditions on employees' work-life balance: The Dutch case. *Community, Work & Family*, 12(3), 279–297.
- Pichler, F. (2009). Determinants of Work-life Balance: Shortcomings in the Contemporary Measurement of WLB in Large-scale Surveys. *Social Indicators Research*, 92(3), 449–469. <https://doi.org/10.1007/s11205-008-9297-5>
- Plantenga, J., & Remery, C. (2005). *Reconciliation of Work and Private Life: A Comparative Review of Thirty European Countries*.
- Presser, H. B., Gornick, J. C., & Parashar, S. (2008). Gender and nonstandard work hours in 12 European countries. *Monthly Labor Review*, 131, 83–103.
- Schieman, S., Glavin, P., & Milkie, M. A. (2009). When Work Interferes with Life: Work-Nonwork Interference and the Influence of Work-Related Demands and Resources. *American Sociological Review*, 74(6), 966–988. <https://doi.org/10.1177/000312240907400606>
- Secret, M., & Sprang, G. (2002). The effects of family-friendly workplace environments on work-family stress of employed parents. *Journal of Social Service Research*, 28(2), 21–45.
- Siegrist, J. (2001). *A theory of occupational stress*.
- Sirgy, M. J., & Lee, D.-J. (2016). Work-life balance: A quality-of-life model. *Applied Research in Quality of Life*, 11(4), 1059–1082.
- Tsai, M. C., Nitta, M., Kim, S. W., & Wang, W. (2016). Working overtime in East Asia: convergence or divergence?. *Journal of Contemporary Asia*, 46(4), 700–722.
- van Breeschoten, L., & Evertsson, M. (2019). When does part-time work relate to less work-life conflict for parents? Moderating influences of workplace support and gender in the Netherlands, Sweden and the United Kingdom. *Community, Work & Family*, 22(5), 606–628. <https://doi.org/10.1080/13668803.2019.1581138>
- van Breeschoten, L. van. (2019). *Combining a career and childcare: The use and usefulness of work-family policies in European organizations*. Utrecht University.
- Van der Hulst, M. (2003). Long workhours and health. *Scandinavian Journal of Work, Environment & Health*, 171–188.
- Van der Lippe, T., Lippényi, Z., Lössbroek, J., van Breeschoten, L., Van Gerwen, N., & Martens, T. (2016). *European Sustainable Workforce Survey [ESWS]*. Utrecht: Utrecht University.
- Van der Lippe, T., Van Breeschoten, L., & Van Hek, M. (2019). Organizational Work-Life Policies and the Gender Wage Gap in European Workplaces. *Work and Occupations*, 46(2), 111–148. <https://doi.org/10.1177/0730888418791652>
- Voydanoff, P. (2004). The Effects of Work Demands and Resources on Work-to-Family Conflict and Facilitation. *Journal of Marriage and Family*, 66(2), 398–412. <https://doi.org/10.1111/j.1741-3737.2004.00028.x>
- Voydanoff, P. (2005a). Toward a Conceptualization of Perceived Work-Family Fit and Balance: A Demands and Resources Approach. *Journal of Marriage and Family*, 67(4), 822–836. <https://doi.org/10.1111/j.1741-3737.2005.00178.x>
- Voydanoff, P. (2005b). Work Demands and Work-to-Family and Family-to-Work Conflict: Direct and Indirect Relationships. *Journal of Family Issues*, 26(6), 707–726. <https://doi.org/10.1177/0192513X05277516>
- Wepfer, A. G., Allen, T. D., Brauchli, R., Jenny, G. J., & Bauer, G. F. (2018). Work-life boundaries and well-being: Does work-to-life integration impair well-being through lack of recovery? *Journal of Business and Psychology*, 33(6), 727–740.

White, M., Hill, S., McGovern, P., Mills, C., & Smeaton, D. (2003). 'High-performance' Management Practices, Working Hours and Work–Life Balance. *British Journal of Industrial Relations*, 41(2), 175–195. <https://doi.org/10.1111/1467-8543.00268>