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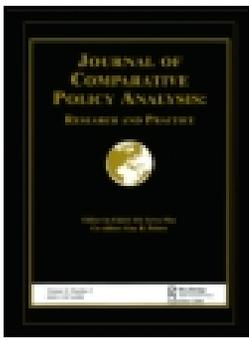
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Article



National-Level Family Policies and workers' Access to Schedule Control in a European Comparative Perspective: Crowding Out or In, and for Whom?

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ABSTRACT *This paper examines national-level family policies in a comparative perspective, to see whether they “crowd out” company-level family-friendly policies, namely schedule control. Further, it examines whether this relationship varies for different types of family policies, and for different groups of workers – i.e. distinguished by gender, parenthood status and skill divisions. The paper uses data from 27 European countries in 2010, and applies multilevel random slopes models with cross-level interaction terms. Results show that generous national-level family policies, in particular work-facilitating policies, “crowd in” company-level schedule control provisions, especially for high-skilled workers. However, very generous leave entitlements seem to crowd out schedule control provision.*

Keywords: company-level; national-level; crowding out; multilevel random slopes model; comparative family policies; schedule control

Introduction

Many studies examine the cross-national variation of family policies or the extent to which policies support a dual-earner/carer system (e.g. Crompton 2006; Lewis et al. 2008; Korpi et al. 2013) with much of the focus on comparing national-level policies across different countries. Although national-level policies are important when examining the support available for parents, it is also crucial to examine the meso- and micro-levels (see also, Abrahamson 2007; Kvist and Greve 2011). On the one hand, companies may effectively

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restrict the access to the existing national-level regulations (Bygren and Duvander 2006), ultimately defining the “final availability” of arrangements workers actually have (Chung and Tjeldens 2013). On the other hand, companies may provide additional arrangements which may not be set out in national-level agreements to address various needs arising from the company (Farnsworth 2004). Employers have their own incentives for providing additional family-friendly arrangements, i.e. to help ensure the recruitment and maintenance of workers with additional family demands (Dex and Scheibl 2001; Wood et al. 2003), and/or to increase performance outcomes (Swanberg et al. 2005; Ortega 2009).

This paper examines the relationship between national-level and company-level family policies in a comparative perspective using data from 27 European countries. “Crowding out” theory (Etzioni 1995) argues that generous national-level social policy programmes “‘crowd out’ informal caring relations and social networks, as well as familial, communal and occupational systems of self-help and reciprocity” (Van Oorschot and Arts 2005, p. 6). Based on this theory, in countries where generous national-level family policies exist, companies will not be willing, or may not feel a need, to provide company-level policies to address workers’ family demands. On the other hand, others (e.g. DiMaggio and Powell 1983; Künemund and Rein 1999; Davis and Kalleberg 2006) argue that generous policies at the national level can encourage companies to provide more generous policies.

Although some studies have examined this issue (see the next section for a review), they are limited in that most examine family policies as a unidimensional concept, and assume an equal impact of policies across the population. Family policies are multi-dimensional and provide different functions (Misra et al. 2011). In addition, access to company-level policies are not equal across all workers (Swanberg et al. 2005) and divisions in the labour market vary across different institutional settings (Schwander and Häusermann 2013; Chung 2016). This paper thus contributes to the existing literature by examining the relationship between national-level family policies and access workers have to additional company-level family-friendly policies in a comparative perspective. More specifically, it distinguishes between different types of family policies, and distinguishes the effect of these policies across different groups in the labour market. Following the literature on unequal access to family-friendly policies (e.g. Swanberg et al. 2005; Brescoll et al. 2013; Munsch 2016), this paper focuses on divisions across gender, parenthood status and skill levels.

Of the various arrangements provided at the company level, this paper will focus on workers’ perceived access to schedule control, i.e. the control they have over their work schedules. Along with part-time working, schedule control is one of the most commonly provided and used arrangements at the company level to better balance work with family life (Gornick and Heron 2006; Eurofound 2010; Chung 2017). One reason for its frequent use is because it can be used to enhance company performance, as well as address workers’ family demands (Ortega 2009; Chung and Tjeldens 2013). Further, unlike part-time work, it is less likely to lead to negative career consequences (McGinnity and McManus 2007), with potential for income and career premiums (Leslie et al. 2012; Lott and Chung 2016). Lastly, the right to reduce working hours, i.e. working part-time, is more strictly regulated by law in many countries, such as Sweden and the Netherlands (Hegewisch 2009), while until very recently the right to schedule control was not provided as a particularly strong legal right in Europe.¹ This makes schedule control more appropriate when examining the relationship between national-level policies and company-level provisions.

The next section explains what is meant by schedule control, the varying access to it across different groups, and examines the theories on the relationship between national-level policies and company-level provisions. The following section examines the data, variables used, as well as the methodologies applied in the paper. The fourth section will present the analysis results, followed by some final concluding remarks and suggestions for future studies.

Theories, Definition

What Is Schedule Control?

The concept of schedule control builds on the job demands–control model developed by Karasek (1979), but focuses on the control over when work is done rather than how it is done (Kelly and Moen 2007). More specifically, it entails a worker's ability to change the timing of their work (that is, to alternate the starting and ending times – i.e. flexitime), and in some cases, the ability to change the number of hours worked per day or week, up to a worker having complete control over their working hours (working-time autonomy).

Work–family border theory (Clark 2000) and flexibility enactment theory (Kossek et al. 2005) suggest that having control over one's work schedule can help facilitate the integration of work and home roles. Schedule control provides workers with control over the time border between work and family, allowing workers to adapt the timing of work around family demands (Clark 2000). Especially given that normal fixed working hours (e.g. 9 a.m. to 5 p.m.) and family schedules/demands (e.g. school pick-up times at 3:30 p.m.) are not necessarily compatible, the control over when you work can help workers resolve some of the conflict arising from this incompatibility. There is evidence to show that having control over their work and more specifically having schedule control can help relieve workers' work–family conflict, that is the conflict between the demands of the work and home spheres (e.g. Chung 2011; Allen et al. 2013; Kelly et al. 2014).

However, schedule control is not only used to address workers' family demands, but also to enhance performance (Ortega 2009). Schedule control can be used as a part of a high-involvement system (Wood and de Menezes 2010) or high-performance strategy, which believes that allowing workers more discretion and influence over their work can help improve performance (Davis and Kalleberg 2006). In fact, studies have shown that workers increase their work intensity and working hours when using schedule control (Kelliher and Anderson 2010; Lott and Chung 2016), and accordingly it can lead to income premiums for workers (Leslie et al. 2012) and better performance outcomes for employers (de Menezes and Kelliher 2011).

Who Has Access to Schedule Control?

Who has access to schedule control will depend on the company's main purpose for introducing the policy. Swanberg et al. (2005) discuss three principles in which these can take form: principles of need, equity and equality. When employers are genuinely interested in addressing the work–family needs of workers, those with most family demands are likely to get access to the arrangements. In this case, we could expect parents/workers with care responsibilities to be more likely to have access to schedule control. This will particularly be the case for parents with young children, given the amount of care required

in the early years of a child's life. Women still take, and are expected to take, the bulk of responsibility for household tasks and care (Eurofound 2013). Thus when schedule control is provided based on the principle of need, women should have more access.

On the contrary, when employers are more interested in the enhanced performance gained from introducing schedule control (principle of equity), those who are more likely to be able to increase work intensity/hours or contribute to the organisation will have more access (Swanberg et al. 2005). Furthermore, schedule control is more likely to be provided as a reward to those in higher status, supervisory roles (Schieman et al. 2013), or as a part of the increase in overall control these workers obtain over their work (Kelly and Kalev 2006). As employers hold discriminatory assumptions regarding women's use of schedule control – i.e. for family-friendly purposes (Brescoll et al. 2013), men are expected to and in some cases actually do increase their work intensity more than women when using schedule control (Lott and Chung 2016). This, along with the fact that organisational hierarchies are gendered (Acker 1990), means that employers may be more likely to provide schedule control to men when the principle of equity is prioritised in deciding who gets access to schedule control. Lastly, when the equality principle takes precedence, access to schedule control will be provided to all workers equally regardless of their family demands or performance outcome projections (Swanberg et al. 2005).

Empirically, the principle of equity has been shown to be the strongest determinant of schedule control access. Those in high-skill positions, more highly educated workers and workers at higher occupational levels are most likely to have access to schedule control (Golden 2009; Ortega 2009; Brescoll et al. 2013). Workers in disadvantaged positions – e.g. low wage, hourly paid, less well educated – are least likely to have such access (e.g. Swanberg et al. 2005; Golden 2009). In addition, studies have shown that men are more likely to have and be given access to schedule control (Golden 2009; Ortega 2009; Minnotte et al. 2010; Lyness et al. 2012; Brescoll et al. 2013), even if the reason for the access is for childcare purposes (Munsch 2016). Regarding parental status, there is evidence that being a parent – especially of young children – increases the availability of schedule control (Golden 2009; Minnotte et al. 2010), while others found parental status to be insignificant (Swanberg et al. 2005; Ortega 2009).

Impact of Institutions

Despite the number of studies examining access to schedule control, few examine the role national-level policies have in determining access to schedule control for workers in a comparative perspective. Furthermore, how national-level family policies influence the relative access different groups of workers have to schedule control is yet to be examined.

“Crowding out” theory argues that national-level policies will crowd out company-level engagements (Etzioni 1995; van Oorschot and Arts 2005), i.e. companies will not be willing to, or may not feel a need to, provide company-level family policies when there are generous policies at the national level. However, this will not necessarily stop companies from using schedule control for performance-enhancing purposes. Thus, following the “crowding out” assumption, we would expect the principle of equity to be prevalent in countries with generous national-level family policies, with more highly skilled workers, men and non-parents being more likely to have access to it.

The counter-argument to this comes from the “crowding in” theory (e.g. Künemund and Rein 1999), arguing for a positive, rather than negative, relationship between

generous welfare policies and informal welfare – in particular intergenerational welfare. Unfortunately, there is yet to be a “crowding in” theory that focuses on the relationship between national-level policies and corporate family policies. However, institutional theory provides us with some insights on these relationships. Institutional theory argues that institutions, bureaucratic systems, laws and policies put pressure on organisations to become similar to national institutions (DiMaggio and Powell 1983). Especially of interest to this paper are the normative isomorphic pressures, i.e. national-level policies changing the norm and subsequent public demand for companies to be more family-friendly (Den Dulk et al. 2013), and mimetic pressures, i.e. where companies imitate or mimic the practices of other organisations (Davis and Kalleberg 2006, pp. 199–202). Based on this theory, we can expect that when there are generous national-level family policies, this will raise the benchmark and change the culture companies operate in, making them more likely to provide company-level family-friendly policies. This normative change may also lead companies to follow the principle of need when providing schedule control, following what is done at the national level. In this case, we would expect that in countries with generous national-level family policies, employers will make schedule control more readily available for workers with the most family demands. This would result in women/parents having more access compared to men/non-parents. In addition, we would observe a reduced gap between workers with different skill levels, since schedule control would be given to workers regardless of their potential returns.

In sum, the hypotheses for this paper can be summed up as:

- H1a: In countries with generous family policies at the national level, workers are less likely to have access to schedule control (“crowding out”).*
- H1b: In countries with generous family policies at the national level, workers are more likely to have access to schedule control (“crowding in”).*
- H2a: In countries with generous family policies at the national level, men/non-parents and more highly skilled workers are more likely to have access to schedule control, and a larger skill level/educational gap will be found (“crowding out”).*
- H2b: In countries with generous family policies at the national level, women/parents are more likely to have access to schedule control and a smaller skill level/educational gap will be found (“crowding in”).*

Empirically, the results are varied. Some qualitative studies provide evidence of “crowding out”: that is, in countries without much statutory family policy provision, companies use family-friendly policies for staff retention or other strategic reasons (Den Dulk 2005; Ollier-Malaterre 2009). On the contrary, studies using quantitative data of companies have shown that company-level schedule control policies are more widespread in countries where there are generous family policies at the national level (Den Dulk et al. 2013; Chung 2014). Others using individual-level quantitative data argue that there are no clear relationships between statutory regulations and (extra) company-level provisions (Kassinis and Stavrou 2013; Präg and Mills 2014), and only when there is a very large involvement from the state can a “crowding out” impact be seen (Evans 2002). Only one individual-level data study shows that family policies at the national level have a positive impact on workers’ access to schedule control (Lyness et al. 2012).

The different results may be due to the different types of data used, but also due to the different measurement of family policies at the national level – Evans (2002), Lyness et al.

(2012), and Präg and Mills (2014) focus on leave policies, Kassinis and Stavrou (2013) and Chung (2014) use family policy expenditure, while Den Dulk et al. (2013) use a single composite indicator encompassing both leave policies and childcare provision. However, efforts made by governments to support families are multi-dimensional and can have very different impacts on work–family outcomes (Misra et al. 2011), and do not necessarily correlate with one another (Korpi 2000). Following the distinction made by previous scholars (Korpi 2000; Misra et al. 2011; Korpi et al. 2013), this paper distinguishes family policies into three different types. Firstly, public expenditure on family policies as a percentage of GDP indicates a general level of effort made at the national level. Secondly, “work-reducing” measures (Misra et al. 2011) indicate the state’s provision of the right to provide care – allowing parents/mothers to stay at home during the early years of a child’s life through parental leave. Lastly, “work-facilitating” measures (Misra et al. 2011) indicate the extent to which the state encourages women’s labour market participation/dual-earner system, for example through public childcare provisions. Misra et al. (2011) note that while generous work-facilitating policies have a positive influence on employment outcomes for women, extensive work-reducing policies such as long leave entitlements may exacerbate the gender gap by enforcing “mommy tracks” – easing mothers out of the markets. Similarly, I expect that work-facilitating measures will be especially closely linked to the provision of schedule control. Only when childcare is readily available can schedule control help parents/mothers back into work after childbirth (see also Chung and van der Horst [forthcoming](#)). In countries with long leave entitlements, having flexibility in one’s schedule may not be as important since mothers/parents will be on leave during these care-intensive years.

Another limitation to previous studies is that most do not examine how the impact of institutions can vary for different groups in the labour market. To the author’s knowledge, only two studies examine any variation. Den Dulk et al. (2013) show that generous family policies at the national level increase the gap between companies in their provision of schedule control; in countries with generous family policies, public and larger companies are even better at providing schedule control. Lyness et al. (2012), on the other hand, do not find a significant influence of generous paid in explaining the cross-national variance of the gender gap in access to schedule control. More investigation is needed to see how different types of family policies may influence the access gap across a wider range of workers.

Data and Methods

Data

The European Working Conditions Survey collected by the European Foundation aims to provide information on a number of dimensions regarding the working conditions of workers across Europe. Individuals across 34 European countries were included in the survey: the EU27 plus candidate countries. Of the sample, I make use of the data for the EU27 countries. The survey was conducted in the first half of 2010, where individuals were interviewed using a face-to-face method at the respondent’s home. A random stratified sampling procedure was used to gather a representative sample of those aged 15 or over and in employment at the time of the survey. The target sample for most countries was 1,000 respondents but this varied across countries. The average response

rate was 44.2 per cent across all countries, ranging from 31 per cent (Spain) to 74 per cent (Latvia). Of the total sample, I restrict the analysis to those in dependent employment, and further exclude those in the armed forces, and in agriculture/fisheries due to the specific nature of these jobs. I also exclude those over 65 years of age. Further excluding cases with missing values in any one of our variables results in a total of 23,234 cases across 27 countries. See <http://eurofound.europa.eu/european-working-conditions-surveys-ewcs> for more on this survey.

Variables

The provision of schedule control has been measured through the following question “How are your working time arrangements set?”, where the workers can answer: 1 – “They are set by the company/organisation with no possibility for changes”; 2 – “You can choose between several fixed working schedules determined by the company/organisation”; 3 – “You can adapt your working hours within certain limits (e.g. flexitime)”; and 4 – “Your working hours are entirely determined by yourself”. Those who have answered 3 or 4 to this question are considered to have schedule control. Note that we are examining access to schedule control, which is distinct from the use of it (McNamara et al. 2012).

The key independent variables are gender; parental status, i.e. whether or not the respondent lives with a child under 18 years of age, and whether the respondent lives with a preschool child under 6 years of age; the worker’s skill level based on occupational category as a continuous scale (professionals/managers = 3, associate professionals/managers = 2, generally skilled/vocational = 1, and low/unskilled = 0) (see appendix for detailed definitions);² and education level measured through two dummies (tertiary or above, upper and post-secondary (reference), primary and lower-secondary). Based on previous studies (e.g. Chung 2009; Lyness et al. 2012; Präg and Mills 2014) I also include age; whether the respondent lives with a partner; contract type; working hours; whether the worker holds a supervisory role; existence of an employee representative at the company; management support; gender of the direct manager; gender dominance of the post; and finally the size and sector (public vs. private, as well as the line of business, reference group: manufacturing) of the company the respondent works in.

Family policy is measured by three indicators. Firstly, general family-policy generosity is measured through public expenditure on family policies as a percentage of GDP for the year 2010 derived from EUROSTAT. Secondly, work-reducing family policy is measured through effective parental leave, i.e. duration of the parental leave (including maternity or paternity) multiplied by the income replacement rate throughout these months. This variable is derived from the Multilinks data set, and is for the year 2009 due to the lack of data for 2010. Thirdly, the proportion of children using formal childcare for age group 0–3 years for 2010 from EUROSTAT is used to indicate work-facilitating measures. I choose childcare coverage of 0–3 instead of 3–compulsory school age/6, for two reasons. Firstly, the 0–3 age group demands more intensive childcare and thus is much harder to provide, while it is most crucial in terms of allowing mothers to continue their labour market commitment after childbirth (Korpi 2000). Secondly, the compulsory school age varies widely across Europe (e.g. 4 for the UK, 7 for Finland) thus making the index harder to compare, and similarly, in many cases childcare for 3–6 year olds is often considered a part of the formal educational system for young children, rather than as

policies to support mothers' employment (Misra et al. 2011). See appendix for more detailed information about the operationalisation of all variables.

Modelling Method

Two-level random-intercept/random-slope multilevel regression models are used for the purposes of this paper. Multilevel modelling methods are used when data is clustered, and contextual effects are taken into account (Hox 2002). Multilevel modelling assumes that the lower-level sample – here individuals – is subject to the influences of groupings (Rasbash et al. 2009), such as countries in this paper's case. Firstly, before examining the predictors of schedule control, the interclass correlation (ICC) is examined. The ICC indicates the extent to which the variance of the dependent variable could be attributed to the country level. Secondly, I include individual-level variables to see the influence of individual (and company) characteristics that can explain workers' access to schedule control. Next, I include national-level variables in the model to explain the variance in the access to schedule control found between countries, after taking into account the composition effect, e.g. the fact that different countries have different compositions of workers. This allows us to test whether generous family policies at the national level influence workers' access to schedule control (H1). Afterwards, random slopes models are used to test the varying impact of gender; parental status; skill level; and educational level across different policy settings (H2). Through this approach, we are able to test whether the gender gap (differences between men and women); parental status gap (difference between parents and non-parents); skill gap (differences between higher and lower skilled workers); and the educational gap (differences between more and less highly educated workers) in the access to schedule control are equal across countries. A significant variance in the random slope entails that there are countries where these gaps are significantly different from the average gap found across Europe (coefficients found for the general model). For the variables with significant variance in the random slope, I include cross-level interaction terms with the family policy variables and the random slope variables, to see whether the different types of national-level family policies can explain some of this variation. Or to put it differently, we are testing whether the impact of family policies vary across different segments of the labour market (see also Chung and Mau 2014). This allows us not only to examine whether national-level family policies "crowd out" or "crowd in" access to company-level arrangements for the general population, but also to see whether certain populations are targeted in this process. STATA 14.0 *meqlogit* is used for the analysis.

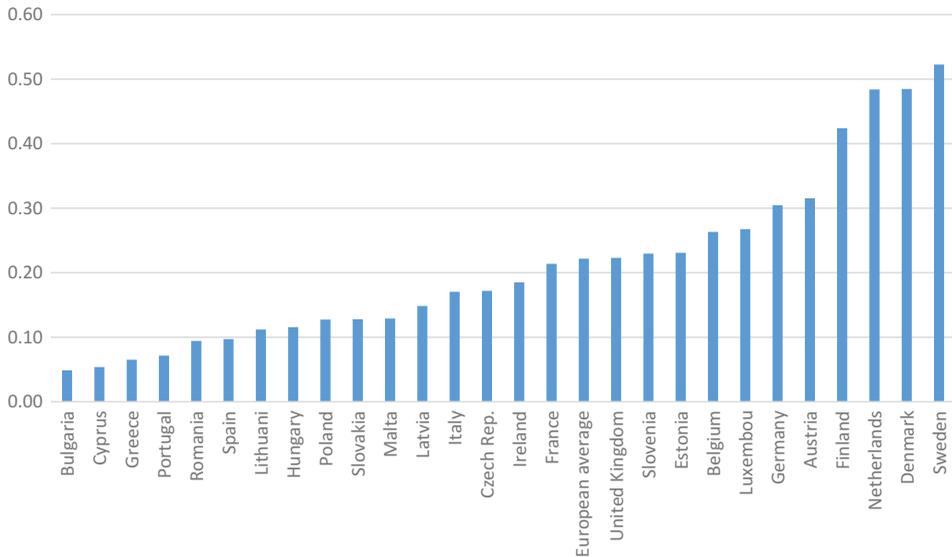
Results

Descriptive Statistics

Looking at the national-level variation in the access to schedule control (Figure 1), on average about 22 per cent of all workers have access. At first glance, the positions of countries in their average access to schedule control seem to reflect the existing family-policy regime typologies. In Northern European countries, along with the Netherlands, workers are more likely to have access to schedule control, with more than 40 per cent having access. In countries such as Austria, Germany, Luxemburg and Belgium, followed

Figure 1. Proportion of workers with access to schedule control across 27 European countries in 2010 *Source:* EWCS.

Note: Weighted averages, excluding agricultural workers and armed forces.



by Estonia, Slovenia, the UK and France, at least one in five workers have access to schedule control. In Southern and some Eastern European countries, workers do not have much access to schedule control, with less than 10 per cent having access in countries such as Bulgaria, Cyprus, Greece, Portugal and Romania.

Multivariate Analysis

The ICC in the empty model without any controls is 22 per cent, indicating that just above one-fifth of the variance in the access to schedule control across all workers in our survey is due to the country they live in. [Table 1](#) provides the results of the multilevel analysis including individual/company-level characteristics to explain access to schedule control. Firstly, we examine the key variables of our interest, gender; parental status; skill; and educational level. The gender of the respondent is not significantly related to whether they have access to schedule control, and nor is parental status. Workers with preschool children are more likely to have access to schedule control, but the difference is rather small. On the other hand, there is a significant divide between workers of different skill levels in their access to schedule control. The higher the respondent's skill level and the higher the respondent's education level, the more likely that they will have access to schedule control. On average, one step change upwards in the skill hierarchy increases your likelihood of accessing schedule control by approximately 1.5 times. Similarly, those with tertiary education are 1.6 times more likely than upper secondary educated workers (the reference group), and more than twice as likely as primary/lower secondary educated workers to have access to schedule control.

Table 1. Multilevel model explaining workers' access to schedule control across 27 European countries in 2010

	Model 1		
	B	Std. E	Odds
Female (ref: male)	-0.008	0.047	1.008
Has a child <18 (ref: no children)	0.074	0.049	1.076
Has a preschool child <6	0.128*	0.064	1.136
Skill level (0 = low-skilled-3 = high-skilled)	0.426***	0.026	1.531
Education (ref: upper secondary)			
Primary or lower secondary	-0.324***	0.052	0.713
Tertiary or above	0.490***	0.047	1.633
Controls			
Age	0.011***	0.002	1.011
Has a partner (ref: does not have a partner)	-0.015	0.043	0.985
Open-ended contract (ref: not in open-ended)	-0.104	0.054	0.901
Working hours	0.002	0.002	1.002
Supervisory role (ref: not in supervisory role)	0.425***	0.049	1.530
Employee representative exists (ref: no ER)	-0.049	0.042	0.952
Management support	0.128**	0.039	1.137
Boss woman (ref: boss man)	-0.015	0.046	0.985
Gender dominance of job (ref: equal numbers)			
Mostly men with the same job	-0.213***	0.051	0.808
Mostly women with the same job	-0.332***	0.050	0.717
Establishment size (ref: 500 or more)			
Fewer than 10	-0.193**	0.073	0.825
10 to 49	-0.476***	0.069	0.621
50 to 99	-0.379***	0.079	0.684
100 to 249	-0.270***	0.079	0.763
250 to 499	-0.021	0.092	0.979
Public company	-0.317***	0.052	0.723
Sector (ref: manufacturing)			
Mining & quarrying	-0.672**	0.313	0.511
Electricity, gas, water	0.472***	0.143	1.603
Construction	-0.069	0.093	0.933
Retail & wholesale	0.055	0.071	1.057
Hotel & restaurant	0.053	0.107	1.055
Transport & storage	0.128	0.089	1.137
Financial services	0.497***	0.097	1.644
Real estate	0.670***	0.078	1.955
Public admin	0.514***	0.091	1.672
Education	-0.502***	0.095	0.605
Health & social services	-0.226**	0.083	0.798
Other services	0.613***	0.088	1.846
Constant	-2.583***	0.243	
Log Likelihood	-9691.603		
Variance country level	0.961***	0.267	
Variance individual level		$\pi^2/3$	

N level 1 = 23,234, N level 2 = 27 countries, *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

N level 1 = 23,234, N level 2 = 27 countries, *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Examining other control variables, older workers – most likely with more experience – those in supervisory roles, and those with supportive managers are more likely to have access to schedule control. Those working in job posts that are predominately populated by men are less likely to have access to schedule control compared to posts where men and women are equally represented, yet working in posts where women are prevalent is far worse. Having a partner, working hours, having an open-ended contract, working in companies with employee representatives, and the gender of one’s boss are all not significant in explaining workers’ access to schedule control.

Working in a public company is negatively associated with access to schedule control, which may be because private companies are more likely to introduce new and innovative practices. Workers employed in large companies (250+) are more likely to have access to schedule control, followed by medium-sized (100–249) and micro companies (fewer than 10). Small companies (10–99) are the ones where workers are least likely to have access to schedule control. It is likely that medium-sized and larger companies may have more capacity to provide formal schedule control arrangements, while micro companies use informal arrangements. However, for small companies it may be difficult to do either. Looking at sectoral variations, electricity, financial services, real estate, public administration and other service sectors are those where workers are most likely to have access to schedule control. These sectors may be those where work is organised more flexibly, and there are fewer constraints. On the other hand, education, health and social services sectors, along with mining and quarrying are the worst in providing access. This is perhaps due to constraints coming from the nature of the work done or due to the lack of potential performance gain that employers expect from these sectors with the introduction of schedule control.

Country-Level Results

To address hypothesis 1, I examine the relationship between national-level family policies and workers’ access to schedule control. The results in Table 2 show that countries with generous family policies are those where individuals are more likely to have access to

Table 2. Multilevel model using family policies to explain workers’ access to schedule control across 27 European countries in 2010

Schedule control/model ^a	2-1	2-2	2-3	2-4
Country level variables				
Family expenditure	0.463**			0.197
Childcare coverage 0-3		0.524***		0.347*
Effective parental leave			0.340 ⁺	0.263
Effective parental leave ²			-0.437***	-0.267*
Constant	-2.575***	-2.529***	-2.584***	-2.259***
Var. country	0.707***	0.647***	0.684***	0.474***
R ² level 2 (Changes from Model 1)	26.4%	32.6%	28.8%	50.7%
Log likelihood ^b	-9687.558*	-9686.471*	-9691.601	-9682.416 ⁺

N level 1 = 23,234, N level 2 = 27 countries, *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, ⁺ $p < 0.10$.

^aThe models includes all variables included in Model 1 in Table 1.

^bSignificance symbols represents the significant increase in log likelihood scores from the nested model.

schedule control, supporting hypothesis 1b. In countries with stronger work-facilitating policies – i.e. childcare provision, and where family policies are generous in general – i.e. more spending on family policies, workers are more likely to have access to schedule control. Parental leave, representing work-reducing policies, has an inverted U-shape relationship to workers’ access to schedule control, as shown by Evans (2002). In other words, in countries where effective parental leave is about the European average (about a year) workers’ access to schedule control is at its highest. However, access to schedule control is restricted in countries where effective leave entitlements are very short or very long (see Figures 2 and 3). Family policy variables combined explain more than 50 per cent of the cross-national variation in the provision of schedule control (see model 2–4 in Table 2).

Next, I examine whether national-level family policies can help explain the cross-national variation in the division between workers of different genders, parental status, skill and educational classes in their access to schedule control. First, we need to test whether there are significant cross-national variations in the slope of these variables using random slopes models. The results show³ that for the gender gap (variance 0.036, $p = 0.099$), the gap between parents and non-parents (variance 0.000, $p > 0.100$), and the gap between upper-secondary educated workers vs. primary educated workers (variance 0.043, $p > 0.100$), there are no significant cross-national variations. However, there are significant cross-national variances in the gap in the access to schedule control between tertiary vs. upper-secondary educated workers (variance 0.113, $p = 0.022$) and that between high-skilled and low-skilled workers (variance 0.025, $p = 0.025$).

Figure 2. National-level family policies and access to schedule control for low-skilled and high-skilled workers across 27 European countries in 2010 *Source:* EWCS.

Note: This likelihood takes into account all controls included in Model 1.

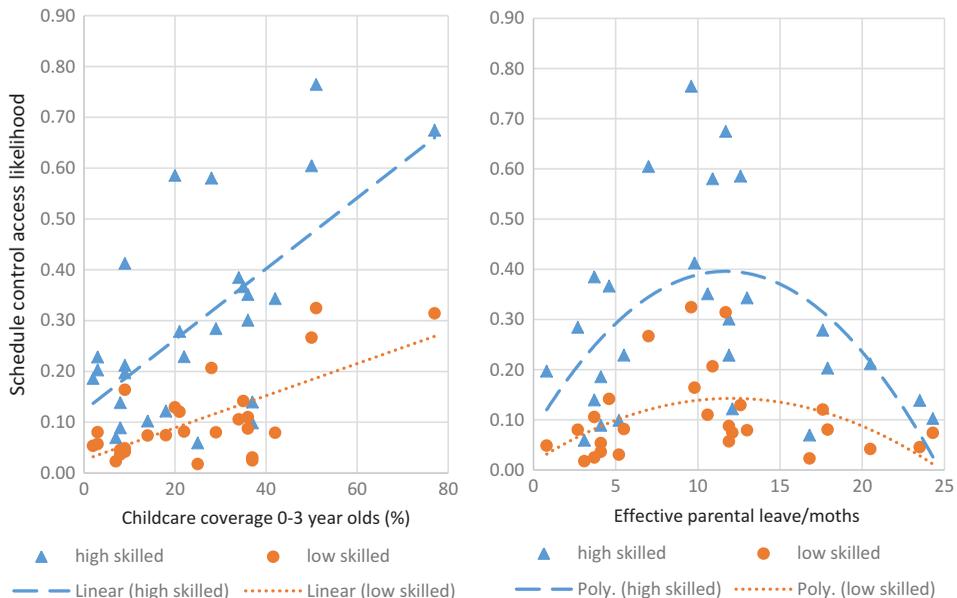
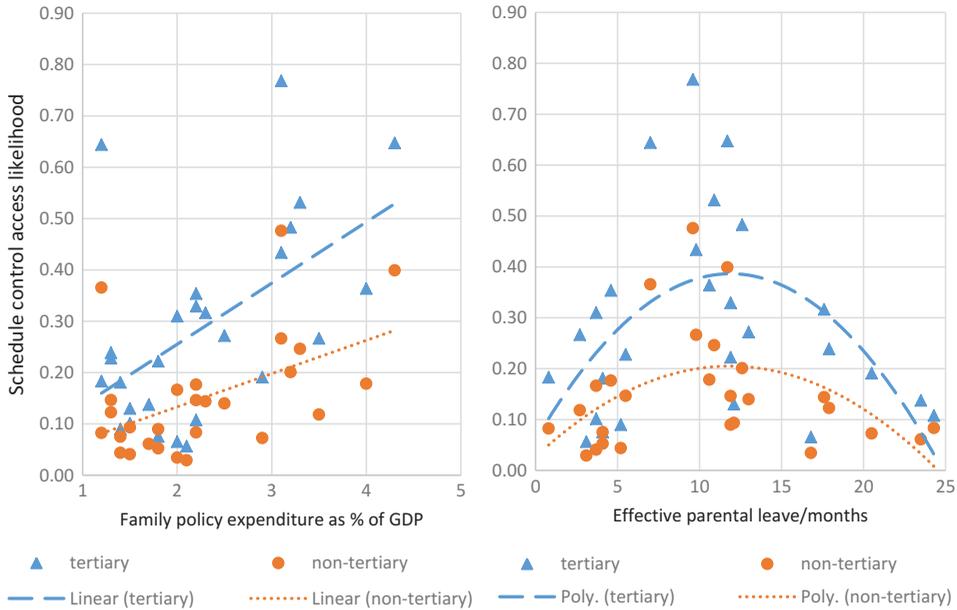


Figure 3. National-level family policies and access to schedule control for less well educated and more highly educated workers across 27 European countries in 2010 *Source:* EWCS.

Note: This likelihood takes into account all controls included in Model 1.



Next, I examine the relevance of national-level family policies in explaining the cross-national variation in the gaps between workers with different skill/education levels. I find that the additional access that workers have to schedule control in countries with generous childcare coverage and in countries with about average levels of parental leave is mostly driven by the additional access gained by high-skilled and more highly educated workers (Table 3 and Figures 2 and 3). Put differently, the schedule control access gap between high- vs low-skilled/educated workers is largest in countries with extensive childcare coverage and about average level of parental leave. This is because high-skilled/educated workers are much more likely have access to schedule control in these countries compared to other countries, while the differences across countries in the access low-skilled/educated workers have are smaller.

Conclusion and Discussions

Despite the growing number of studies that deal with family policies, most cross-national comparative analyses focus either on national-level policies or company-level provisions, ignoring how the two levels interact. Those that do examine this relationship rarely explore whether it varies depending on the group of workers in question, as well as between different types of family policies, i.e. work-reducing vs. work-facilitating policies. This article tries to fill this gap and contribute to the literature by examining workers' access to one of the most prevalent forms of company-level family-friendly policy:

Table 3. Multilevel results using family policies to explain the varying impact of skill and educational level on access to schedule control across 27 European countries in 2010

Schedule control/model	3-1	3-2	4-1	4-2	4-3
Individual-level variables ^a					
Skill level	0.390***	0.478***	0.431***	0.432***	0.432***
Tertiary educated	0.491***	0.496***	0.372***	0.381***	0.548***
Country-level variables					
Family policy exp.	0.426***		0.411**		
Childcare coverage		0.344 ⁺		0.465***	0.318 ⁺
Parental leave ²		-0.304*			-0.359**
Interactions					
Skill level*childcare coverage	0.059 ⁺				
Skill level*parental leave		-0.003			
Skill level*parental leave ²		-0.081**			
Tertiary*family expenditure			0.127 ⁺		
Tertiary*childcare coverage				0.128 ⁺	
Tertiary*parental leave					0.057
Tertiary*parental leave ²					-0.155**
Constant	-2.451***	-2.184***	-2.489***	-2.449***	-2.117***
Var. random slope	0.020*	0.010	0.091	0.091*	0.067
R ² random slope	20.9%	59.8%	19.3%	19.5%	41.2%
Log likelihood ^b	-9675.019*	-9672.287	-9673.710	-9672.739*	-9672.180

N level 1 = 23,234, *N* level 2 = 27 countries, *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, ⁺ $p < 0.10$.

^aThe models include all variables included in Model 1 in Table 1.

^bSignificance symbols represents the significant increase in log likelihood scores from the nested model.

schedule control. The paper first examines whether there are large gaps in the access to schedule control across workers of different gender, parental status and skill level. Then it goes on to examine how national family policy contexts can explain the cross-national variation in workers' access to schedule control using the theory of "crowding out" and "crowding in". It further examines whether family policies can explain the cross-national variation in the access gap between different groups of workers.

The results show that there are large variations across different groups of workers in their access to schedule control. Those who have greater potential to contribute to the company, and increase their performance/work intensity, seem to have better access to schedule control; i.e. more highly educated and skilled workers in supervisory roles are more likely to have access. There is little support for a needs-driven provision; although workers with preschool children are also slightly more likely to have access, there are generally no significant differences between parents vs. non-parents or men vs. women, confirming what has been shown in previous studies (e.g. Swanberg et al. 2005; Ortega 2009).

There is evidence that generous national-level family policies can both "crowd in" and "crowd out" company-level provisions, depending on the type of policy. Work-facilitating policies "crowd in" workers' access to schedule control, confirming earlier studies (Chung 2014; Lyness et al. 2012; Den Dulk et al. 2013). Work-reducing policies, however, "crowd in" schedule control only to a certain degree and then "crowding out" effects can be seen, similar to what was found for women's employment patterns (Misra et al. 2011). Family policies were also associated with gaps in the access workers of different skill and education levels had to schedule control. The additional schedule control access found in countries with generous work-facilitating policies and about average level of work-reducing policies was predominantly due to the additional access gained by high-skilled/educated workers. Thus, we can argue that "crowding in" of occupational policies seems to be targeted towards the group of workers that employers have a stake in recruiting/maintaining, with greater potential to contribute to company performance outcomes – i.e. the high-skilled workers. Yet employers may not feel a need to provide schedule control to workers, both high- and low-skilled, when very long leave entitlements are available, "crowding-out" occupational-level policies.

There are some points that need further investigation. Some of the relationships found here were rather exploratory, especially the context variables included to explain the cross-national variation in the gaps in access to schedule control between different groups of workers. Thus the results may be sensitive towards any confounders excluded from the analysis and future studies should examine other potential important contextual factors – such as unemployment rates, labour market institutions, or work and gender norms. Additionally, due to the limitation of the cross-sectional data used here, we cannot be certain about the causality of the relationships found – e.g. countries where organisations have a greater skill demand, managers may not only introduce generous family policies at the company level but also demand that generous family policies are developed at the national level (see also Fleckenstein and Seeleib-Kaiser 2011). Longitudinal data on the use of flexible work arrangements in a cross-national comparative setting will be of benefit to allow such analysis to take place. Finally, the results may be sensitive to the period under investigation. Major austerity cuts were implemented in 2009–2010, and similar behaviour may have occurred at the company level, which may distort our results. Further analysis using data from different years (pre-, post-crisis) would be of benefit.

Despite these limitations, this study has shown some useful insights on the underexplored issue of the relationship between national- and company-level policies, how this relationship may vary depending on the actual policy type examined, and across different groups of workers in the labour market. Firstly, an important result from this paper is that we cannot assume an equal influence of institutions across different groups of workers (see also Chung and Mau 2014; Chung 2016). This paper has shown the usefulness of random-slopes cross-level interaction models to explore this issue with cross-national comparative data. Secondly, different results are found for different types of family policies, leading us to rethink how we conceptualise family policy, its role and its impact on work–family outcomes (see also Misra et al. 2011). This study provides further evidence that we need to be cautious about exactly what we are measuring when we examine family policy indicators, especially when using single or composite indicators. Finally, the results from this paper show that despite some cross-national variance, generally, disadvantaged labour market groups are least likely have access to company-level family-friendly arrangements such as schedule control (see also Swanberg et al. 2005; Golden 2009). This is especially problematic if we consider that these workers may be those in most need of family-friendly measures due to lack of other resources to address the conflicting demands of work and family life. Policy makers should thus explore ways to tackle this unequal access to company-level provisions of family-friendly policies to ensure that everyone can make use of such benefits. Generous family policies at the national level may help in ensuring access for some workers, yet, as shown in this paper, this may not necessarily guarantee access for the lower ends of the labour market. A strong right to request flexible working, with greater protective measures, may be better suited to tackle this issue.

Notes

1. There are countries where workers have a right to request flexible working, such as in the UK. However this is a much softer right compared to the Dutch right to adjust working hours (WAA), where it is more difficult for employers to refuse the request. The Dutch, however, have passed a law on flexible working which will allow workers a stronger right to request flexible working – e.g. working from home or schedule control – as of 2016.
2. Skill level is included as a continuous variable to enable a more simplistic random slopes model – where several categorical variables would have resulted in a larger number of models to be tested.
3. Detailed results provided upon request.

References

- Abrahamson, P., 2007, Reconciliation of work and family life in Europe: A case study of Denmark, France, Germany and the United Kingdom. *Journal of Comparative Policy Analysis*, **9**(2), pp. 193–209.
- Acker, J., 1990, Hierarchies, jobs, bodies: A theory of gendered organizations. *Gender & Society*, **4**(2), pp. 139–158.
- Allen, T. D., Johnson, R. C., Kiburz, K. M. and Shockley, K. M., 2013, Work–family conflict and flexible work arrangements: Deconstructing flexibility. *Personnel Psychology*, **66**(2), pp. 345–376.
- Brescoll, V. L., Glass, J. and Sedlovskaya, A., 2013, Ask and ye shall receive? The dynamics of employer-provided flexible work options and the need for public policy. *Journal of Social Issues*, **69**(2), pp. 367–388.
- Bygren, M. and Duvander, A. Z., 2006, Parents' workplace situation and fathers' parental leave use. *Journal of Marriage and Family*, **68**(2), pp. 363–372.
- Chung, H., 2009, *Flexibility for Whom? Working Time Flexibility Practices of European Companies* (Ridderkerk: Ridderprint).

- Chung, H., 2011, Work-Family Conflict across 28 European Countries: A Multi-level Approach, in: S. Drobnic and A. Guillén (eds) *Work-Life Balance in Europe: The Role of Job Quality* (Hampshire: Palgrave Macmillan), pp. 42–68.
- Chung, H., 2014, Explaining the provision of flexitime in companies across Europe (in the pre- and post-crisis Europe): Role of national contexts. *WAF working paper 1*. Canterbury: University of Kent.
- Chung, H., 2016, Dualization and subjective employment insecurity: Explaining the subjective employment insecurity divide between permanent and temporary workers across 23 European countries. *Economic and Industrial Democracy*. Online first.
- Chung, H., 2017, *Work Autonomy, Flexibility and Work-Life Balance Final Report* (Canterbury: University of Kent).
- Chung, H. and Mau, S., 2014, Subjective insecurity and the role of institutions. *Journal of European Social Policy*, 24(4), pp. 303–318.
- Chung, H. and Tijdens, K., 2013, Working time flexibility components and working time regimes in Europe: Using company level data across 21 countries. *International Journal of Human Resource Management*, 24(7), pp. 1418–1434.
- Chung, H. and van der Horst, M., forthcoming, Women's employment patterns after childbirth and the perceived access to and use of flexitime and teleworking. *Human Relations*. Online first.
- Clark, S. C., 2000, Work/family border theory: A new theory of work/family balance. *Human Relations*, 53(6), pp. 747–770.
- Crompton, R., 2006, *Employment and the Family: The Reconfiguration of Work and Family Life in Contemporary Societies* (Cambridge: Cambridge University Press).
- Davis, A. E. and Kalleberg, A. L., 2006, Family-friendly organizations? Work and family programs in the 1990s. *Work and Occupations*, 33(2), pp. 191–223.
- de Menezes, L. M. and Kelliher, C., 2011, Flexible working and performance: A systematic review of the evidence for a business case. *International Journal of Management Reviews*, 13(4), pp. 452–474.
- Den Dulk, L., 2005, Workplace work–family arrangements: A study and explanatory framework of differences between organizational provisions in different welfare states, in: S. A. Y. Poelmans (ed) *Work and Family: An International Research Perspective* (Manwah: Lawrence Erlbaum Associates Inc.), pp. 211–238.
- Den Dulk, L., Groeneveld, S., Ollier-Malaterre, A., and Valcour, M., 2013, National context in work-life research: A multi-level cross-national analysis of the adoption of workplace work-life arrangements in Europe. *European Management Journal*, 31(5), pp. 478–494.
- Dex, S. and Scheibl, F., 2001, Flexible and family friendly working arrangements in UK based SMEs: Business cases. *British Journal of Industrial Relations*, 39(3), pp. 411–431.
- DiMaggio, P. J. and Powell, W. W., 1983, The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), pp. 147–160.
- Etzioni, A., 1995, *The Spirit of Community: The Reinvention of American Society* (London: Fontana Books).
- Eurofound, 2010, *European Company Survey 2009: Overview* (Luxembourg: Office for Office Publication of the European Communities).
- Eurofound, 2013, *Women, Men and Working Conditions in Europe* (Luxembourg: Publications Office of the European Union).
- Evans, J. M., 2002, Work/family reconciliation, gender wage equity and occupational segregation: The role of firms and public policy. *Canadian Public Policy/Analyse de Politiques*, 28(1), pp. 187–216.
- Farnsworth, K., 2004, Welfare through work: An audit of occupational social provision at the turn of the new century. *Social Policy & Administration*, 38(5), pp. 437–455.
- Fleckenstein, T. and Seeleib-Kaiser, M., 2011, Business, skills and the welfare state: The political economy of employment-oriented family policy in Britain and Germany. *Journal of European Social Policy*, 21(2), pp. 136–149.
- Golden, L., 2009, Flexible daily work schedules in US jobs: Formal introductions needed? *Industrial Relations: A Journal of Economy and Society*, 48(1), pp. 27–54.
- Gornick, J. C. and Heron, A., 2006, The regulation of working time as work-family reconciliation policy: Comparing Europe, Japan, and the United States. *Journal of Comparative Policy Analysis*, 8(2), pp. 149–166.
- Hegewisch, A., 2009, Flexible working policies: A comparative review. *Research Report 16* (Manchester: Equality and Human Rights Commission).
- Hox, J. J., 2002, *Multilevel Analysis: Techniques and Applications* (Mahwah, NJ: Lawrence Erlbaum Publishers).
- Karasek, R. A. J., 1979, Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24(2), pp. 285–308.

- Kassinis, G. I. and Stavrou, E. T., 2013, Non-standard work arrangements and national context. *European Management Journal*, **31**(5), pp. 464–477.
- Kelliher, C. and Anderson, D., 2010, Doing more with less? Flexible working practices and the intensification of work. *Human Relations*, **63**(1), pp. 83–106.
- Kelly, E. L. and Kalev, A., 2006, Managing flexible work arrangements in US organizations: Formalized discretion or ‘a right to ask’. *Socio-Economic Review*, **4**(3), pp. 379–416.
- Kelly, E. L. and Moen, P., 2007, Rethinking the clockwork of work: Why schedule control may pay off at work and at home. *Advances in Developing Human Resources*, **9**(4), pp. 487–506.
- Kelly, E. L., Moen, P., Oakes, J. M., Fan, W., Okechukwu, C., Davis, K. D., Hammer, L. B., Kossek, E. E., King, R. B., Hanson, G. C., Mierzwa, F., Casper, L. M., 2014, Changing work and work-family conflict: Evidence from the work, family, and health network. *American Sociological Review*, **79**(3), pp. 485–516.
- Korpi, W., 2000, Faces of inequality: Gender, class, and patterns of inequalities in different types of welfare states. *Social Politics: International Studies in Gender, State & Society*, **7**(2), pp. 127–191.
- Korpi, W., Ferrarini, T. and Englund, S., 2013, Women’s opportunities under different family policy constellations: Gender, class, and inequality tradeoffs in western countries re-examined. *Social Politics: International Studies in Gender, State & Society*, **20**(1), pp. 1–40.
- Kossek, E. E., Lautsch, B. A. and Eaton, S. C., 2005, Flexibility enactment theory: Implications of flexibility type, control, and boundary management for work-family effectiveness, in: E. E. Kossek and S. J. Lambert (Eds) *Work and Life Integration: Organizational, Cultural, and Individual Perspectives* (Mahwah, NJ: Lawrence Erlbaum Associates Publishers), pp. 243–261.
- Künemund, H. and Rein, M., 1999, There is more to receiving than needing: Theoretical arguments and empirical explorations of crowding in and crowding out. *Ageing and Society*, **19**(1), pp. 93–121.
- Kvist, J. and Greve, B., 2011, Has the Nordic welfare model been transformed? *Social Policy & Administration*, **45**(2), pp. 146–160.
- Leslie, L. M., Manchester, C. F., Park, T.-Y., and Mehng, S. A., 2012, Flexible work practices: A source of career premiums or penalties? *Academy of Management Journal*, **55**(6), pp. 1407–1428.
- Lewis, J., Knijn, T., Martin, C., and Ostner, I., 2008, Patterns of development in work/family reconciliation policies for parents in France, Germany, the Netherlands, and the UK in the 2000s. *Social Politics: International Studies in Gender, State & Society*, **15**(3), pp. 261–286.
- Lott, Y. and Chung, H., 2016, Gender discrepancies in the outcomes of schedule control on overtime hours and income in Germany. *European Sociological Review*, **32**(6), pp. 752–765.
- Lyness, K. S., Gornick, J. C., Stone, P., and Grotto, A. R., 2012, It’s all about control worker control over schedule and hours in cross-national context. *American Sociological Review*, **77**(6), pp. 1023–1049.
- McGinnity, F. and McManus, P., 2007, Paying the price for reconciling work and family life: Comparing the wage penalty for women’s part-time work in Britain, Germany and the United States. *Journal of Comparative Policy Analysis*, **9**(2), pp. 115–134.
- McNamara, T. K., Pitt-Catsoupes, M., Brown, M., and Matz-Costa, C., 2012, Access to and utilization of flexible work options. *Industrial Relations: A Journal of Economy and Society*, **51**(4), pp. 936–965.
- Minnotte, K. L., Cook, A. and Minnotte, M. C., 2010, Occupation and industry sex segregation, gender, and workplace support: The use of flexible scheduling policies. *Journal of Family Issues*, **31**(5), pp. 656–680.
- Misra, J., Budig, M. and Boeckmann, I., 2011, Work-family policies and the effects of children on women’s employment hours and wages. *Community, Work & Family*, **14**(2), pp. 139–157.
- Munsch, C. L., 2016, Flexible work, flexible penalties: The effect of gender, childcare, and type of request on the flexibility bias. *Social Forces*, **94**(4), pp. 1567–1591.
- Ollier-Malaterre, A., 2009, Organizational work–life initiatives: Context matters: France compared to the UK and the US. *Community, Work & Family*, **12**(2), pp. 159–178.
- Ortega, J., 2009, Why do employers give discretion? Family versus performance concerns. *Industrial Relations: A Journal of Economy and Society*, **48**(1), pp. 1–26.
- Präg, P. and Mills, M., 2014, Family-related working schedule flexibility across Europe. in: Europe R (Ed) *Short Statistical Report No. 6*. European Commission.
- Rasbash, J., Steele, F., Browne, W. J., and Goldstein, H., 2009, *A User’s Guide to MLwiN, V2. 10* (Bristol: Centre for Multilevel Modelling, University of Bristol).
- Schieman, S., Schafer, M. H. and McIvor, M., 2013, The rewards of authority in the workplace: Do gender and age matter? *Sociological Perspectives*, **56**(1), pp. 75–96.
- Schwander, H. and Häusermann, S., 2013, Who is in and who is out? A risk-based conceptualization of insiders and outsiders. *Journal of European Social Policy*, **23**(3), pp. 248–269.

- Swanberg, J. E., Pitt-Catsouphes, M. and Drescher-Burke, K., 2005, A question of justice disparities in employees' access to flexible schedule arrangements. *Journal of Family Issues*, 26(6), pp. 866–895.
- van Oorschot, W. and Arts, W., 2005, The social capital of European welfare states: The crowding out hypothesis revisited. *Journal of European Social Policy*, 15(1), pp. 5–26.
- Wood, S. J. and de Menezes, L. M., 2010, Family-friendly management, organizational performance and social legitimacy. *The International Journal of Human Resource Management*, 21(10), pp. 1575–1597.
- Wood, S. J., de Menezes, L. M. and Lasasoa, A., 2003, Family-friendly management in Great Britain: Testing various perspectives. *Industrial Relations: A Journal of Economy and Society*, 42(2), pp. 221–250.

Appendix. Variable definitions and descriptive statistics

A-1. Variable definitions and data sources

1. Individual level variables

- Gender: dichotomous variable of female (male = reference group)
- Parental status
 - Lives with a child under the age of 18
 - Lives with a pre-school child (< 6)
- Skill-level level – Simplified categorisation of occupational groups based on the

Occupation group	ISCO-88 2 digit categories
Professional/managerial (3)	11 Legislators and Senior officials 12 Corporate managers 21 Physical, mathematical and engineering science professionals 22 Life science and health professionals 23 teaching professionals
Associate professional/managerial (2)	13 General Managers 24 Other professionals 31 Physical and engineering science associate professionals 32 Life science and health associate professionals 33 Teaching associate professionals 34 Other associate professionals
Generally/vocationally skilled (1)	41 Office clerks 42 Customer service clerks 51 Personal and protective services workers 52 Models, salespersons and demonstrators 71 Extraction and building trade workers 72 Metal, machinery and related trade workers 73 Precision, handicraft, printing and related trades workers 74 Other craft and related trade workers
Low/un-skilled (0)	61 Market-oriented skilled agricultural and fishery workers 62 Subsistence agricultural and fishery workers 81 Stationary-plant and related operators 82 Machine operators and assemblers 83 Drivers and mobile-plant operators 91 Sales and service elementary occupation 92 Agricultural, fishery and related labourers 93 Labourers in mining, construction, manufacturing and transport

ISCO-88 2 digit recoded into 4 majors groups based on Schwander and Häusermann{, 2013 #689} used as a scale variable

- Education – divided into three categories of 1) primary and lower-secondary, 2) upper-secondary and post-secondary(reference), 3) tertiary or above
- Age – as a continuous variable ranging from 15 to 65
- Partner – whether the respondent lives with a partner
- Contract type: The contract type of the respondent is also included in the analysis divided into those with indefinite contracts coded as 1, and those without (those with a fixed term contract, a temporary employment agency contract, an apprenticeship or other training scheme, or those with no contracts) coded as 0.
- Working hours: Working hours is measured as the number of hours worked in the main job and is a raw score. The number of hours is capped at 60 hours a week.
- Supervisor role: Based on the question “How many people work under your supervision, for whom pay increases, bonuses or promotion depend directly on you?” where none was coded as 0, anything above 1 coded as 1 = having some sort of supervisory role.
- The existence of an employee representative: “At your workplace is there an employee acting as an employee representative?”
- Management support : “For each of the following statements, please select the response which best describes your work situation.... Your manager helps and supports you”, and could answer from 1 –Always, 2 – Most of the time, 3 – Sometimes, 4 – Rarely, and 5 – Never. Respondents who have answered 1 or 2 for this question is considered to have support from management.
- Woman boss: The gender of the worker’s supervisor is captured through the following variable; “Is your immediate boss a man or a woman?” (0=man, 1=woman).
- Gender dominance of the position: Measured through the following variable: “At your place of work are workers with the same job title as you” – the answer can range from 1 – Mostly men; 2 – Mostly women; 3 – More or less equal numbers of men and women; 4 – Nobody else has the same job title. Two dummies are made from this question to represent mostly female occupation and mostly male occupation.
- Size of the company: Company size is included as a categorical variable: less than 10, 10 to 49, 50 to 99, 100 to 249, 250-499, 500 + employees – reflecting the commonly used definition company sizes (see:
- Public sector: To distinguish those working in the public sector, the following variable is used “Q10 Are you working in the ...?” where respondents can answer, 1 – Private sector, 2 – Public sector, 3 – Joint private-public organisation or company, 4 – Not-for-profit sector, NGO, and 5 – Other. Those who have answered 2 or 3, have been coded as being employed in the public sector.
- Sector : Sector: NACE R.1.1, 1 digit categories: Mining and quarrying, Manufacturing, Electricity, gas and water supply, Construction, Wholesale and retail, Hotel & restaurant, Transport, storage and communication, Financial intermediation, Real estate, renting and business activities, Public administration and defence, Education, Health and social work, Other community, social and personal service activities

2. National level variables

● Institutions

- Family policy expenditure : Family policy expenditure as a percentage of GDP for 2010 (Source: Eurostat - <http://ec.europa.eu/eurostat/data/database>)
- Parental leave: effective parental leave for 2009 (duration*income replacement rate) (source: Multilinks) – note 2009 is used since data for 2010 could not be obtained.
- Childcare coverage: average number of hours of childcare for age group 0-3 for 2010 derived from EU SILC data (source: Eurostat)

Independent variable summary EWCS 2010 individual level

Variable	Obs	Mean	Std.Dev.
Female	29296	53%	0.50
Direct boss woman	28758	32%	0.47
Occupation – mostly men	29112	36%	0.48
Occupation – mostly women	29112	35%	0.48
Has a child <18	29296	32%	0.47
Has a preschool child <6	29296	14%	0.35
Has a partner	29296	66%	0.47
Employee representative	27911	46%	0.50
Management support	28070	63%	0.48
Establishment size			
Less than 10	28283	32%	0.47
10-49	28283	33%	0.47
50-99	28283	12%	0.32
100-249	28283	10%	0.30
250-499	28283	5%	0.22
500 or more	28283	8%	0.27
Public company	29068	35%	0.48
Education – primary and lower secondary	29208	24%	0.43
Education – upper and post-secondary	29208	45%	0.50
Education – tertiary	29208	31%	0.46
Occupational level			
Professionals/managers	29006	15%	0.35
Associate professional/managers	29006	22%	0.41
General skills/vocational	29006	42%	0.49
Low/unskilled	29006	21%	0.41
Supervisory role	28975	14%	0.35
Indefinite contract	29156	79%	0.40

(continued)

(Continued)

Variable	Obs	Mean	Std.Dev.
<i>Sector</i>			
Mining	27976	1%	0.07
Manufacturing	27976	15%	0.36
Electricity	27976	2%	0.12
Construction	27976	7%	0.25
Retail	27976	16%	0.25
Hotel & restaurant	27976	5%	0.36
Transport	27976	7%	0.21
Financial	27976	3%	0.25
Real estate	27976	8%	0.18
Public admin	27976	8%	0.27
Education	27976	10%	0.27
Health and social services	27976	12%	0.31
Other services	27976	6%	0.25

Variable	Obs	Mean	Std.Dev.	Min	max
Working hours	28793	36.94	9.94	1	60
Age	28024	41.25	11.40	15	65