# For Better or Worse: How more Flexibility in Working Time Arrangements and Parental Leave Experiences Affect Fathers' Working and Childcare Hours in Germany 

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#### Abstract

Objective: In this study, we investigate the effect of flexible working time arrangements and parental leave experiences on the actual working and childcare hours of men. Background: Many fathers want to spend more time with their children and actively participate in family life, but, after becoming a parent, most work even more hours than before. To better combine work and family, the possibility of flexible working time arrangements might play a crucial role for fathers, also to become more involved in childcare activities. Method: We use longitudinal data of the German Socio-Economic Panel (SOEP) to examine how flexible working time arrangements, parental leave experiences, working hours, and childcare hours are related. Based on data between 2013 and 2019, panel regression models were estimated. Results: The results show that a change from fixed to flexible working time regulations leads to an increase in working hours for men and fathers. The longer working hours of fathers go hand in hand with a reduction in the time spent on childcare activities when switching to flexible working time arrangements. However, experiences with parental leave in connection with flexible working hours show a change in the use of time. Conclusion: Flexible working time regulations prove to be ambivalent for fathers: On the one hand, they offer fathers new leeway, on the other hand, due to traditional role models, they lead to longer working hours and thus less participation in childcare; but parental leave experiences make a difference, which indicates the importance of these regulations for fathers.

Key words: employer-oriented working hours, fatherhood, fixed schedules, flexitime, parental leave experience, self-determined working hours


## 1. Introduction

In recent years, a new generation of fathers has emerged in modern societies. More and more fathers want to share family tasks and participate in childcare more equally, taking the role of an engaged father (Risman 2018). However, fathers' attitudes and wishes and their actual behaviour often widely diverge. After the birth of a first child, most fathers continue to work full-time, whereas mothers often reduce their working hours extensively and change to part-time work or even exit the labour force to care for their children and home (Boeckmann et al. 2014; Booth \& Van Ours 2013; Zimmert \& Weber 2021). Thus, many couples experience a traditionalization of the gendered division of labour (Aboim 2010; Edlund \& Öun 2016; Geisler \& Kreyenfeld 2011; Grunow et al. 2007; Reimer 2015).

Legal regulations and family policies influence the familial division of labour by supporting either a more traditional male breadwinner model, such as in the Continental European countries Germany and the Netherlands, or a dual-earner dual-career model, such as in the Scandinavian countries Finland, Norway, and Denmark (Aboim 2010; Edlund \& Öun 2016; Bünning \& Pollmann-Schult 2016). Countries supporting dualearner dual-career families also tend to support norms that involve the liberation of men and women from traditional gender roles (Bünning 2015; Sjöberg 2004), thus committing themselves to gender equality (Gornick \& Meyers 2003).

Besides changes in fathers' attitudes and wishes towards a more egalitarian division of labour, the legal regulations and family policies, but also framework conditions in establishments, play a crucial role in fathers' engagement in childcare. Regarding those framework conditions, working time flexibility through various working time arrangements plays a key role. Establishments can support employee-oriented flexible working time arrangements to combine better work and family life (Beste-Fopma \& Baisch 2017), thus not only influencing mothers' but also fathers' possibilities to engage in childcare. In this respect, Germany provides an interesting role model because flexible employment forms and especially flexible working time arrangements have spread throughout the labour market for the past three decades. However, their use is still considerably employer-driven (Zapf \& Weber 2017) and thus still oriented towards the ideal worker norm with male employees working full-time and being available for the establishment at all times without any familial time restrictions (Williams 2000; Sallee 2012; Lott \& Klenner 2018). Against this background, we investigate whether the effect of flexible working time arrangements on actual working hours differs between fathers and non-fathers in Germany and whether certain forms of flexible working time arrangements contribute to allowing more time for childcare activities. We further investigate whether egalitarian gender attitudes make a difference, i.e., whether there are forms of flexible working time arrangements which lead to fewer working hours and more childcare hours for fathers who have experienced parental leave.

Previous literature analyses as a first strand the determinants of working hours of men and fathers focusing on the institutional context, family context, and establishmentspecific framework conditions (e.g., Bernhardt \& Bünning 2017; Bünning 2015; Bünning \& Pollmann-Schult 2016; Hobler \& Pfahl 2015; Kanji \& Samuel 2017; Koslowski 2010; Pollmann-Schult 2008; Reimer 2015; Weinshenker 2015). On the one hand, generous family allowances and well-paid, non-transferable parental leave of fathers enable them to
work less than childless men (Bünning \& Pollmann-Schult 2016). Here, Bünning (2015) shows that fathers spending (more) time on parental leave in Germany also work fewer hours than fathers spending no (or less) time (Koslowski 2010). On the other hand, also the partner's employment status is important. Pollmann-Schult and Reynolds (2017) show that in Germany, men decrease their actual working hours when becoming a father, but only significantly when their partner works full-time.

Furthermore, literature investigates the role of establishment-specific framework conditions (Alemann et al. 2017; Liebig et al. 2017). Results for Germany show that clear regulations in establishments for combining work and family addressing all employees and a supportive culture regarding the temporary replacement of absent employees favour fewer working hours of fathers (Bernhardt \& Bünning 2017). Flexible work organisation and the possibility to work from home also appear to support fathers, but many fear to claim flexible options or part-time work as they expect penalties (Reimer 2015). Moreover, workplace cultures, such as the culture of presence, hinder fathers from taking more time with their children (Alemann et al. 2017; Liebig et al. 2017; Possinger 2013; Reimer 2015). The use of flexible work arrangements for non-professional obligations is therefore often exacerbated for fathers (Lott 2019).

Another strand of the literature analyses the outcomes of flexible working time arrangements (e.g., Hill et al. 2001; Lott 2015, 2017; Lott \& Chung 2016; Russell et al. 2009; White et al. 2003). Whereas fixed working hours are predictable and reliable for employees (Lott 2017), flexible working time arrangements may imply working time unpredictability and unreliability. They also lead to higher work pressure, overtime (Lott 2015; Lott \& Chung 2016), and longer working hours (Grunau et al. 2017; Hill et al. 2001; Matta 2015). But they can also lead to greater job and life satisfaction (McNall et al. 2009; Wheatley 2017a) and a higher level of autonomy and decision-making (Lott 2017). The adjustment of working hours via flexible working arrangements may also depend on the social norms of the ideal worker and ideal parent (Williams et al. 2013; Lott \& Klenner 2018). Fathers with egalitarian gender role attitudes might prefer and obtain a reduction in working hours in order to be more involved in childcare activities. Taking parental leave is connected with fathers being more involved with their children (Bünning 2015; Tanaka \& Waldfogel 2007; Haas \& Hwang 2008; Tamm 2019). Whether and to which extent a change to flexible working time arrangements helps fathers to adjust time spent on childcare activities and thus achieve a better balance of work and family life remains undetermined so far.

Combining these strands of the literature, we contribute to the existing literature by focusing on different working time arrangements and their effect on actual hours worked and time spent on childcare activities. Previous literature showed that flexible working arrangements are frequently connected with increased working hours for men. Still, under certain conditions, this increase might be mitigated, i.e., through experiences and changed gender role attitudes during parental leave. Therefore, we will first examine whether changing the working time arrangement is associated with more working hours for fathers as well. Second, we will explore if this change to flexible working time arrangements affects the childcare hours of fathers. Third, we will study if the experience of parental leave affects actual weekly working hours and the hours spent on childcare activities differently depending on the working time arrangements. For this purpose, we
will estimate different panel regression models using the German Socio-Economic Panel (SOEP, 2003-2019). To the best of our knowledge, the underlying study is the first one analysing the different effects of flexible working time arrangements on the possibilities of fathers in particular to adjust actual working and childcare hours depending on experiences of parental leave. By examining how flexible working time arrangements, parental leave experiences, working hours, and childcare hours are related for fathers, we will shed light on whether and under what conditions flexible working hours and parental leave measures help fathers reconcile work and family life.

This paper is structured as follows. In the next section, we will examine the definitions of flexible working time arrangements and discuss the effects of the different working time arrangements on the work and private life of men and fathers and present our hypotheses. In Section 3, we will describe the data, variables, and method. In the following section, we will discuss our empirical findings. The final section will provide a summary and conclusion.

## 2. Theoretical Framework and Previous Research

### 2.1 Working hours offathers vs non-fathers

In Germany, working time arrangements are part of the negotiations between trade unions and employers' associations at the industry level and specified at the establishment level to specifically adapt to employers' and employees' needs. Rubery et al. (2005) find evidence of a move towards an employer-led working time model in Europe. Also in Germany, work is scheduled mainly according to the needs of employers (Zapf \& Weber 2017). By determining working time arrangements, the establishment or workplace plays a crucial role for employees' possibilities to combine work and family life (Bernhardt \& Bünning 2017). Thus, establishments can also influence fathers' possibilities to engage in childcare (Reimer 2015). In Germany, traditional gender norms still exist in establishments. Hence, the regulations of working hours are often still oriented towards the ideal worker norm with (male) employees working full-time and being available for the establishment without any time restrictions due to familial or private obligations. This includes the ability to work overtime, odd hours, to travel and to relocate for work (Williams 2000).

Previous studies analysing the working hours of fathers and non-fathers show somehow contradictory results depending on the underlying theoretical model and the country under investigation. For Germany, Pollmann-Schult and Diewald (2007) do not find significant differences between the working hours of fathers and non-fathers. For the US, Kaufman and Uhlenberg (2000) and Jacobs and Gerson (2001) find that fathers work more hours than non-fathers. Weeden, Cha, and Bucca (2016) find a larger percentage of fathers than childless men working long hours (>50 hours), whereas Weinshenker (2015) shows that in the short term, married fathers do not increase their working hours. However, fathers with egalitarian attitudes work fewer hours than comparable nonfathers, but fathers with traditional attitudes work more hours than comparable non-
fathers. The study of Bünning and Pollmann-Schult (2016) based on 24 European countries shows that fathers work more hours than non-fathers if their partner is not employed. But fathers work less than non-fathers if their partner works full-time. In general, their results indicate that fathers work less than non-fathers in countries offering well-paid, non-transferable parental leave for fathers and generous family allowances, such as Sweden. This is in line with Haas and Hwang $(2000,2006)$ finding that Swedish fathers make adjustments such as reducing work hours or refusing overtime to spend more time with their children.

### 2.2 Types of working time arrangements and empirical findings

German establishments provide manifold working time arrangements mostly with the aim of reaching working time flexibility. The decisive factor here is whether the employer or the employee manages the working hours. With employer-oriented working hours, employers define employees' working hours to control the amount of labour input and avoid staff absences. With fixed working hours, employees have a classic five-day, nine-tofive and 40 -hour workweek, not allowing any working time flexibility for both employers and employees. With employer-oriented flexibility, the employer can freely decide the number of working hours per week and/or at what time on the working day work is to be performed, e.g., as part of shift work. In addition, the employer can also change working hours at short notice according to the respective requirements, e.g., to quickly respond to fluctuations in demand. In the case of employee-oriented working hours, a distinction can be made between flexitime and self-determined working hours. Flexitime allows employees to vary the beginning and end of working hours around determined core working hours (Godart et al. 2017; Hill et al. 2001; Lee \& DeVoe 2012; Lott 2014; Reilly 2001). As a rule, the employee can determine when the working day begins and ends. Working times are usually recorded in a working time account in which working times can be saved and reduced again. Employers give up a certain amount of control through "flexitime". However, employers can also forego control and recording over employees' working hours through "trust-based working hours" (Godart et al. 2017: 895) or free scheduling of working hours through self-determined working hours. Here, the employer often lets employees choose the length and structure of working hours at their own discretion (Godart et al. 2017; Lott 2014). Frequently, there is no control or recording of the working hours of employees (Godart et al. 2017: 895). Although self-determined working hours give employees extensive control over the organisation of their working hours (Lott 2018), studies show that self-determined working hours are often attached to high-performance management strategies (Chung 2018). Furthermore, the working hours of employees are often specified indirectly, e.g., via targets and project dates (Singe \& Croucher 2003) and may therefore also be shaped by employers' interests.

Working time arrangements affect not only employees' work life but also private life having gendered meanings (Lott 2015). With fixed working hours, men completely lack control over their own working hours, but working hours are predictable and reliable (Lott 2017). Thus, on the one hand, fixed working hours may constrain men's work and private life, as family life must be completely organised around their work life. On the other hand, fixed working hours may protect men against employer arbitrariness (Lott 2015) and even
facilitate their work-life balance (Lott \& Chung 2016) through a clear boundary between work and private sphere, allowing long-term predictability. In this sense, fixed working hours can even be superior to flexible working time arrangements (Jürgens 2003). This is especially true for employer-oriented flexibility. According to Mas and Pallais (2017), the vast majority of employees in the US do not appreciate flexible regulations under which the employer can decide about working hours at short notice - even on evenings and weekends. In order to avoid this employer-oriented flexibility, they are willing to accept lower wages and instead choose a traditional Monday to Friday, nine-to-five job.

Studies further indicate that flexible working time arrangements generally lead to a poorer work-life balance for men (e.g., Hofäcker \& König 2013; Lunau et al. 2014; Russell et al. 2009). Men have a higher risk of working overtime, thus having longer actual working hours, but they also experience a higher risk of work pressure (Lott 2015). One possible explanation is that men are more engaged in paid work (Banyard 2010; Bekker et al. 2017; Burchell et al. 2007; Hofäcker \& König 2013) and attached to the labour market, reflecting the still existing male breadwinner culture with men specialising in paid work and without familial obligations. Within this male breadwinner culture, employeroriented working time flexibility can be easily implemented with employers varying employees' working hours according to the establishment's needs. Here, men not only lack control over their working hours, but they are further unpredictable and unreliable (Lott 2017). Consequently, these flexible working time arrangements can lead to work-life stress for men if employee needs are not met (Gregory \& Milner 2009).

Besides employers changing working hours, also flexitime and self-determined working hours may affect men negatively, although these arrangements are supposed to be more employee-oriented. For Germany, Grunau et al. (2017) find that employees with flexitime and self-determined working hours experience longer actual working hours. These arrangements weaken the boundary between work and private life. Especially with self-determined working hours, the risk of fluent boundaries increases, as employees are solely responsible for managing and maintaining the boundary (Lott 2017).

Flexitime only provides a certain degree of autonomy for employees through determined core working hours. Against this background, the risk of long and intense working hours seems to be lower (Lott 2017) so that employees may manage the conflicting demands of work and family to a better degree. Employees appreciate flexitime with varying beginnings and endings of working hours (Jürgens 2003). According to Mas and Pallais (2017), half of the employees are willing to accept a small reduction in wages in exchange for the option of flexitime. Still, the wage premium for flexitime is higher if employees already use flexitime. Studies show positive effects on work-life balance, negative effects on work-family conflict (Hill et al. 2001; Russell et al. 2009), and greater job and life satisfaction with flexitime (McNall et al. 2009; Wheatley 2017a). However, the positive perception and effects strongly depend on the negotiated agreements between employers and employees. Establishments can also use flexitime within a working hours account to better adapt working hours to production and market demands prioritising the establishment's interests over employees' needs. Not surprisingly, results for the US also show that flexitime leads to longer working hours (Hill et al. 2001). In the German context, Lott and Chung (2016) find that men changing from fixed working hours to flexitime work about one overtime hour more per week and Matta (2015) shows that men
with flexitime have longer actual working hours, work a larger number of hours on top of their contractually agreed working hours and have a higher chance of overemployment. However, they have a lower chance of unpaid overtime than (before or after) with fixed working hours. These contradictory effects seem to be counterintuitive at first sight, but they show how flexitime actually works. Employees temporarily extend their working hours through flexitime and later take time off (Zapf 2016), thus reducing the risk of unpaid overtime. However, the results of Matta (2015) are only partly significant.

In contrast, self-determined working hours promise employees full control over their working hours and a high level of autonomy. However, employers also use it as a performance-enhancing measure (Lott 2017) as employees seem to work longer the more autonomy they have over organising their work schedule (Brannen 2005). Besides longer working hours, a high degree of autonomy can lead to higher job pressure, work uncertainty, and a higher degree of responsibility and decision-making (Lott 2017), thus straining employees' well-being (Wheatley 2017b). Studies for Germany indicate that selfdetermined working hours lead to longer actual working hours through overtime. Lott and Chung (2016), for example, show that men changing from fixed working hours to selfdetermined working hours work about two overtime hours more per week. Matta (2015) finds that men with self-determined working hours have longer actual working hours, work a larger number of hours on top of their contractually agreed working hours, and have a higher chance of unpaid overtime and overemployment than (before or after) with fixed working hours.

### 2.3 Parenthood and working time arrangements

But are the arguments about how flexible working time arrangements affect the working hours of men also applicable to fathers? Based on the previous research outlined in Section 2.2, we can assume that non-fathers can more easily increase their working hours, e.g., through overtime hours, because they do not have familial obligations, such as childcare. Thus non-fathers can better fulfil the ideal worker norm. This suggests that the increase in actual working hours is larger for non-fathers than for fathers when changing to flexible working time arrangements. However, competing theories suggest that the increase in actual working hours with flexible working arrangements may be greater for fathers than for non-fathers.

The arrival of a first child still often pushes couples towards traditional gender roles (e.g., Corrigall \& Konrad 2007; Grunow et al. 2007). After becoming a parent, fathers do not alter their working hours very much, but mothers largely reduce them, thus still reflecting the male breadwinner culture (Bünning 2015; Geisler \& Kreyenfeld 2011; Hipp \& Leuze 2015; Koslowski 2010). This traditional division of labour is oriented towards maximising household income with a higher income potential of men than women (Pollmann-Schult 2008). Thus, it is more efficient for the family if women rather than men reduce their working hours to care for children and the household (Haas \& Hwang 2007).

In this connection, gender identity theory assumes that performing certain activities is a way of expressing or producing one's own gender. 'Doing Gender' theory suggests that the household division of labour is oriented towards social norms expecting that fathers
increase employment (Pollmann-Schult 2008). Hence, they may increase working hours. Gender-specific role models result not only from socialisation but are confirmed and reproduced through exercising gender-adequate activities. In this context, we can expect that fathers refuse a reduction of employment (Pollmann-Schult 2008). Based on this idea, men are likely to be less willing to take on childcare tasks as their male social identity is less confirmed (Akerlof \& Kranton 2000). And this might result in men experiencing a loss of identity should they deviate from the relevant code.

In addition, the norm of the ideal worker does not contradict the norm of the ideal parents. Because fathers are perceived as ideal when they provide for their families financially (Lott \& Klenner 2018). First, income may be important. After family formation, financial burdens increase, but income is highest in the middle or late phase of employment. This leads to a faster increase in family expenses than income. Thus, especially young fathers are incentivised to increase their working hours (Pollmann-Schult 2008), and even more when the partner reduces or interrupts employment. However, the specific German working time arrangements and their regulations need to be considered. Higher income due to an increase in actual working hours can only be directly reached when changing to employer-oriented flexible working hours, assuming that additional hours here are often paid off. In the case of flexitime and self-determined working hours, additional working hours do not have a direct monetary effect.

But flexible working time arrangements can enable fathers to better coordinate their working hours with the school and childcare hours of their children as well as the working hours of their partner and thus adapt their working hours to family duties. Employees have different opportunities to spend (more) time on childcare and less time on work. Part-time is an accepted and widespread opportunity among women, whereas fathers are not perceived as a target group so far (Reimer 2015). Against this background, fathers may expect resistance in the establishment and risk disadvantages when reducing working hours (Bernhardt \& Bünning 2017). Flexible working hours can therefore represent an equivalent but more attractive alternative to shorter working hours for fathers in order to increase the time available for children (Wheatley 2017a). With employee-oriented flexible working time arrangements, fathers may have the possibility to use them according to their own needs and thus to take more time for family and children or to adapt work around family. Fathers can better coordinate their working hours with the institutional care hours of the children and the working hours of their partners. However, most flexibility options, such as flexitime, require a certain amount of working hours. Employee-oriented flexible working time arrangements may not directly lead to an increase in time outside of work, because most flexibility options, such as flexitime, require employees to work a certain amount of time. If fathers reduce a few hours of work for family reasons, they have to make up for the missed work at other times. Because flexitime is associated with longer working hours, flexible organisation does not necessarily result in more time spent with children. We, therefore, do not expect any differences in working hours between fathers and non-fathers when it comes to flexitime.

The "flexibility stigma" (Williams et al. 2013; Chung 2018) also contributes to the fact that working time flexibility is hardly used for family reasons, especially in employeeoriented models. In the perception of managers or co-workers, employees "working flexibly for family/care purposes are not as productive or as committed to the workplace,
and will effectively not contribute as much towards the company compared to those who are not working flexibly" (Chung 2018: 526). Fathers, in particular, should therefore not actively use existing flexible working time models for fear of such stigmatisation and the associated risk of career penalties in order not to fall into this flexibility trap. In conjunction with the theory of social exchange (Blau 1964), this could even lead fathers to perceive the availability of flexibility in companies as a positive resource and to react with a more favourable attitude towards the company and longer working hours. Especially with self-determined working hours, the increase in actual working hours may have an indirect monetary effect in the future. Here, additional working hours do not increase income in the short term. However, they are perceived as a strong indicator for workers' commitment, effort, loyalty, or motivation (Anger 2006, 2008; Spence 1973; Zapf \& Weber 2017; Cha 2010) to obtain positive returns in the future, such as career advancement and higher income (Anger 2005; Lazear 1979). Altogether, we expect that the working hours of fathers will be significantly longer than those of non-fathers when switching to selfdetermined working hours.

Therefore, in line with this framework, our study tests the hypotheses that the three different types of flexible working time arrangements affect the working hours of fathers compared to non-fathers as follows:

Hypothesis 1a (H1a): The increase in actual working hours is larger for fathers than for non-fathers when changing to employer-oriented models.

Hypothesis 1 b (H1b): The increase in actual working hours is not different for fathers than for non-fathers when changing to flexitime.

Hypothesis 1c (H1c): The increase in actual working hours is larger for fathers than for non-fathers when changing to self-determined models.

### 2.4 Childcare hours and working time arrangements

Overall, in addition to individual factors, the household context (Bonney et al. 1999; Brayfield 1995; Kim 2020) and cultural norms, concrete legal measures (Bünning 2015) can also influence the time men spend on childcare. Rapoport and Le Bourdais (2008) report that working time has a negative and very significant effect on activities with children and vice versa research has also shown that fathers spend more time with childcare activities when they work fewer hours (Bonney et al. 1999). Studies specifically on the influence of flexible working time regulations on male participation in childcare are comparatively rare. Research has shown that fathers working at night spend less time on parental time (Rapoport \& Le Bourdais 2008; Brayfield 1995; Wight et al. 2008). Flexible hours increase fathers' willingness to contribute to childcare (Krug et al. 2020). Flexible schedules are associated with a higher frequency of daily routines of father-child interactions (Kim 2020). Therefore, the availability and the nature of the flexibility of the working time arrangements may have different effects on the hours spent on childcare.

The extent to which the flexibility of the various working time regulations can be used for childcare depends on the extent to which the fathers reduce their working hours. Based on these theoretical considerations in Section 2.3, we assume that the longer working hours are reflected in shorter times for children's activities, especially in the case of employer-oriented and self-determined working hours. The effect of flexitime could be
a little different. Clearly, flexitime makes it easier to cope with the demands of family life if working hours go beyond the previously rigid framework and instead are designed to be close to everyday life, and the children's changing or spontaneous time needs can be responded to at short notice. They offer the possibility of adapting working hours to different school and kindergarten schedules and to meet short-term time requirements for childcare or children's activities that were previously not possible with fixed working hours. Therefore, a change to flexitime should be associated with more time for childcare activities.

In line with this framework, our study tests the hypotheses that the three different types of flexible working time arrangements affect the childcare hours of fathers as follows:

Hypothesis 2a (H2a): Fathers' time spent on childcare activities decreases when changing to employer-oriented models.

Hypothesis 2b (H2b): Fathers' time spent on childcare activities increases when changing to flexitime.

Hypothesis 2c (H2c): Fathers' time spent on childcare activities decreases when changing to self-determined models.

### 2.5 Parental leave experience and working time arrangements

Becoming a parent can have a transformative effect on men. Their priorities may change and they may develop a greater desire for combining work and family life, potentially leading to the need for new time allocation (Bünning 2015). This may especially apply to fathers of younger cohorts with changing wishes and attitudes regarding their role as a father. Slowly, there seems to be a change from the good provider model to the model of new or involved fatherhood (Kaufman \& Uhlenberg 2000; Pollmann-Schult 2008). The Scandinavian countries act as a forerunner concerning involved fatherhood. Research indicates that men spend more time on childcare and household in countries with a higher labour force participation of women, shorter parental leave schemes, and where men are eligible to take parental leave (Hook 2010).

After the German parental leave reform of 2007, fathers‘ uptake of parental leave has increased - and shows an upward trend (Samtleben et al. 2019). Therefore, today's generation of fathers gains more intensive experiences in childcare than previous ones, and these experiences increase the participation of fathers in the family and reduce their working hours (Schober 2014; Bünning 2015). The attitudes of the fathers also play a role. Fathers with egalitarian gender roles and strong family orientation are more likely to take parental leave than fathers with traditional gender roles and strong professional orientation (Vogt \& Pull 2010). In addition, the father quotas in parental leave regulations cause direct behavioral reactions in the target group and change social norms also in their work environment and among family members (Unterhofer \& Wrohlich 2017).

We, therefore, assume that fathers who experienced parental leave and change to flexible working time arrangements increase their actual working hours by a smaller amount. These reductions in working hours are then reflected in the fathers' childcare hours. Therefore, we assume that fathers with parental leave experience could use the flexible working time arrangements so that they can spend more time with their children.

We do not differentiate the hypotheses according to the type of flexible working time arrangement, as we assume that working hours in all forms should be lower due to the changed attitudes. This means that fathers with parental leave experience use the flexibility like mothers in particular for the time required in everyday life (Hill et al. 2001) and less for career reasons.

Hypothesis 3a (H3a): For fathers with parental leave experiences (PLE), a change from fixed daily working hours to flexible working hours is accompanied by a smaller increase in actual working hours than for fathers without PLE.

Hypothesis 3b (H3b): For fathers with PLE, a change from fixed daily working hours to flexible working hours is associated with a higher contribution to childcare activities than for fathers without PLE.

## 3. Data and Methods

### 3.1 Data

To examine our hypotheses, we rely on panel data from the German Socio-Economic Panel (SOEP). The SOEP is an annual representative longitudinal survey of private households. It started in West Germany in 1984 and in East Germany in 1990. Central topics are, e.g., the current life situation, employment and working time issues, income, health and illness issues, as well as the family situation (Wagner et al. 2007, 2008).

Since 2003, the SOEP has included information on working time arrangements; therefore, we use the SOEP data from 2003 to 2019 (SOEP 2021). For this period, the data contain missing cases in some years (2004, 2006, and 2008), because the questions on working time arrangements were not part of the survey program. Therefore, we excluded the years 2004, 2006, and 2008. In some other years (2010, 2012, 2013), the questions on working time arrangements were only part of the "Families in Germany" subsample. We excluded the information of these years because the missings in these samples are not random. We restricted the sample to men aged 20 to 64 years and men working as dependent employees in full-time, part-time, or marginal employment. Paternity is not measured directly in the SOEP, therefore, our analyses focus on whether a child up to 16 years is living in the household. This child may be biological but also a step, foster, or adopted child.

Our start sample contained 18,892 men ( 9,749 fathers), providing a total of 66,166 person-years ( 29,832 person-years of fathers). Approximately 14 per cent of these personyears ( $11 \%$ of person-years of fathers) were not used in the regression analyses because of missing values on one or more of the covariates. Therefore, our final sample contains 16,888 men ( 8,814 fathers), providing a total of 57,208 person-years ( 26,467 person-years of fathers). Within the observation period, 12,338 men ( 5,368 fathers) changed their working time arrangement, and 243 fathers took parental leave.

### 3.2 Variables

### 3.2.1 Dependent variables

The two dependent variables in our analyses are the self-reported number of actual weekly working hours in the respondent's main job, including overtime hours and the daily hours spent on childcare activities on a normal workday. In order to be able to better compare the coefficients of the models for weekly hours and daily care time, we have also converted the daily care time of the children to a working week of five days - like the working hours.

### 3.2.2 Explanatory variables

The two major explanatory variables of interest in this study are the different working time arrangements and the information on parental leave experiences. Considering different types of working hours available through establishment-specific regulations, respondents were asked, 'Which of the following possibilities is most applicable to your work?' The question, therefore, does cover the availability of working time arrangements but not their actual use. The items of this variable are (1) fixed daily working hours, (2) working hours fixed by the employer, which may vary from day to day, (3) flexitime within a working hours account and a certain degree of self-determination of daily working hours within this account, and (4) no normally fixed working hours, I decide my working hours. The first item describes working hours defined by the company with no possibility of changes, thus providing no flexibility at all. The second item refers to flexible working hours, which can be solely varied by the employer leading to employer-oriented working hours. Item (3) comprises employee-oriented flexible working time arrangements with flexitime within a working time account. Item (4) describes self-determined working hours without a working time account. In this working time regulation, the employee can largely control the organisation of working hours, but this can work in both directions -employer- and employee-oriented. The reference category in the multivariate regression models is fixed daily working hours. For detailed information on "within-individual" changes between the different types of working hours arrangements, see Table A1 in the online appendix.

A dummy variable indicates if a man has made experiences with parental leave in his biography to measure if these care periods affect the working and childcare hours of fathers afterwards.

### 3.2.3 Control variables

Our control variables reflect previous research (Lott \& Chung 2016; Pollmann-Schult \& Reynolds 2017; Boll et al. 2011, Bünning 2015), which suggests that actual working and childcare hours vary as a function of personal, job, and employer characteristics as well as characteristics in the family context. The variables are constructed to measure changes between interviews so that all variables are time-varying. For detailed information on descriptive statistics, see Table A2 in the online appendix with the summary statistics.

Considering personal characteristics, we include age and furthermore age squared to examine whether age has a non-linear relationship with working hours. To identify respondents who increased their qualification level since the previous interview, we
distinguish between men without a vocational degree, men with completed vocational training, and men with a university degree. We also model former West and East Germany separately to consider different cultural expectations about fathers' roles given the different histories.

In addition to these personal characteristics, we control for changes in the job characteristics. Here, we include whether the employee has changed from a full-time to a part-time or a marginal job. Considering this change, we can meet the assumption that a change in working time arrangements implies a parallel change from full-time to parttime, which may cover the effect on hours worked. We include the information if there was a transition from an agreed to a trust-based working time contract. Within trust-based working hours, the employer waives the control of compliance with the contractual working hours. Furthermore, we include whether the respondent worked overtime or not in the month before the interview. We also control whether the employee changes from employment in a temporary employment agency to a regular firm and whether the employee changes from a temporary (or fixed-term) employment contract to an unlimited (or permanent) contract. We also control whether employees have changed their positions or the employer to control for changes in the actual work time due to changes in the work environment such as team culture or new tasks.

We also consider changes in the level of sovereignty in the job ( $1=$ low to $5=$ high $)$ because an increase in working hours might be due to the respondent's higher sovereignty in the job. We also control for changes in men's earnings. The variable is based on the gross monthly income divided by the agreed working hours per month. These hourly gross wages are categorised into percentiles to distinguish changes between low, middle, and high hourly income groups. Furthermore, seniority is included because the number of years working within the same establishment is expected to affect the current working conditions. To capture aspects of the horizontal segregation in the sector of the respondent, we include a dummy variable if the respondent is working in a sector with a high proportion of women (share $>60$ percent). The less female-dominated the sector, the more pronounced may be male characteristics such as competitiveness and long presence at the workplace. The data for this female-dominated sector variable derives from the official statistics of the German Federal Employment Agency on a two-digit economic sector level according to the WZ 2003 and WZ 2008 classification of economic branches (European Commission 2008).

### 3.3 Methods

In our multivariate analyses, we use the panel data structure of the SOEP by estimating fixed effects regression models (see Wooldridge 2010; Torres-Reyna 2007; Allison 2009 regarding this procedure). Fixed effects estimators compare the same person over time and are therefore solely based on intra-individual change. Time-invariant characteristics (which may be observed or unobserved stable characteristics) are not taken into account.

Therefore, fixed effects models can be used to deal with unobserved heterogeneity, e.g., because of individual differences due to omitted variables. Fixed effects models control for all time-invariant characteristics between the employees and consequently, the estimated coefficients cannot be biased due to omitted time-invariant differences, e.g.,
personality, ability, or culture. The fixed effects estimations, therefore, account for selfselection of employees that means selection into jobs with special working time arrangements or systematic reporting biases in respondents' estimates of how many hours they work due to time-invariant individual characteristics. Hence, the most important advantage of our analytical strategy is that causal effects can be identified from the observations by examining how the result changes when the same person changes over time from the control to the treatment state.

To control if the assumed fixed effects model is in fact the preferred model, all models were estimated by ordinary least squares (OLS), random effects (RE), between effects (BE), and fixed effects (FE) regressions (see online appendix, Table 2 to Table 4). Turning into the estimated coefficients of the different models, there is remarkable consensus across the different specifications in terms of the sign and the statistical significance of the estimated coefficients. This suggests the robustness of the estimation results. In all cases, the F test (with prob. > F $=0.000$ ) rejects the null hypothesis of zero individual-specific unobserved heterogeneity, suggesting that the fixed effects specification, which accounts for unobserved individual-specific effects, is the preferred specification.

Although we focus on models with fixed effects in the results section, we also show the results of the models with random effects graphically in the online appendix in Figures A1 and A2 for comparison.

## 4. Results

### 4.1 Descriptive analyses

To get an initial impression of the data, Table 1 shows the proportion of male full-time employees in the various working time arrangements as well as contractual and actual working hours and, for fathers, also the hours spent on daily childcare activities. These descriptive statistics are weighted by the appropriate population weights supplied with the SOEP. In 2019, approximately 37 per cent of men worked with fixed daily conditions where the working hours were specified by the company with no possibility of changes. Twenty per cent had employer-oriented working hours with flexible working schedules set by the employer and possible variations from day to day. Thirty per cent of men had flexitime within a working hours account and a certain degree of self-determination. Thirteen per cent had self-determined working hours, i.e., no formal working hours, but entirely determined by the employee, leading to working time autonomy. In 2019, there were hardly any differences between full-time employed men and fathers in terms of the proportions of the various working time arrangements.

Men's actual working hours are on average longest if working hours are selfdetermined and shortest if daily working hours are fixed. This holds true for men in general and fathers. The differences in contractual working hours by the type of working time arrangement are by far not as pronounced as in actual working hours. This illustrates that the different types of working time arrangements differ in the amount of overtime hours and the options to compensate these hours by time off. Men often work paid overtime in employer-oriented working time arrangements. Overtime that is not
compensated is more likely for men with self-determined working hours. In contrast, overtime hours that are to a large extent compensated at a later point in time by temporarily shorter working hours is more common among men with flexitime (Matta 2015). The average contribution of fathers to daily childcare hours was nearly two hours in 2019. Interestingly, the daily childcare hours of fathers are on average the longest with fixed or employer-oriented working hours.

Table 1: Type of working time arrangement of full-time employees, 2019

| Full-time employees | N | Fixed <br> daily <br> working <br> hours | Employer- <br> oriented <br> working <br> hours | Flexi- <br> time | Self- <br> determined <br> working <br> hours | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Men in general <br> Share of working time <br> arrangement in \% | 4,673 | 37 | 20 | 30 | 13 | 100 |
| Contractual working hours | 4,477 | 39.3 | 39.4 | 38.9 | 39.7 | 39.3 |
| Actual working hours | 4,673 | $(3.2)$ | $(3.8)$ | $(2.0)$ | $(3.7)$ | $(3.1)$ |
|  |  | $(5.3)$ | 44.1 | 42.3 | 46.6 | 43.1 |
| Fathers |  |  |  | $(4.1)$ | $(7.7)$ | $(6.1)$ |
| Share of working time | 2,082 | 38 | 19 | 30 | 14 | 100 |
| arrangement in \% | 1,981 | 39.3 | 39.7 | 39.0 | 39.9 | 39.4 |
| Contractual working hours |  | $(3.2)$ | $(4.2)$ | $(1.8)$ | $(2.4)$ | $(3.0)$ |
|  | 2,082 | 41.8 | 44.1 | 42.5 | 46.6 | 43.1 |
| Actual working hours |  | $(5.3)$ | $(7.4)$ | $(4.6)$ | $(7.6)$ | $(6.1)$ |
|  | 2,082 | 2.1 | 2.1 | 1.9 | 1.7 | 2.0 |
| Daily childcare hours |  | $(2.2)$ | $(1.9)$ | $(2.0)$ | $(1.7)$ | $(2.0)$ |

Source: SOEP 2019. Own calculations. Only full-time employees. Column percentages weighted results with cross-sectional weight. Mean and in parenthesis standard derivation.

### 4.2 Multivariate analyses

For our purposes, we follow a three-stage procedure: In a first step, we examine whether flexible working time arrangements have different effects on working hours for fathers compared to non-fathers. Therefore the actual working hours of all men are first regressed on the different working time regulations, and an interaction effect for fathers is recorded (H1a, H1b and H1c: Figure 1). In a second step, we limit the analysis to fathers and examine whether the average changes in actual working hours due to the changed working time arrangements are reflected in childcare hours (H2a, H2b and H2c: Figure 2). In a third step, we additionally include interaction between working time arrangements and parental leave experiences to examine whether and how the link between a father's working and childcare hours and working time arrangements changes due to transformative effects on fathers' priorities and their time allocation because of experiences during parental leave (H3a and H3b: Figure 2 and Figure 3).

Detailed regression tables are available in the online appendix (Tables A3 to A5). Although the F-tests state that the fixed effects models are the preferred estimations, we also present the results of the random effects models in the online appendix (Figures A1 and A2) for comparison. These models derive their effect size not only from the differences within the individuals but also from the differences between individuals.

To identify the effect of more flexibility in working time organisation, we test hypotheses $1 \mathrm{a}-1 \mathrm{c}$ by regressing the actual working hours of men on the different working time arrangements. To further investigate a possible association between fatherhood and working hours, we add an interaction variable to examine if and how the connection between working hours and the different working time arrangements varies when taking children up to 16 years in the household into account. Figure 1 displays the results of our hypotheses. Changes in the practised working time model since the previous interview are associated with significant changes in actual working hours among men. The results of the fixed effects model indicate that a change from fixed daily working hours to flexible working time arrangements increases actual working hours, as previous studies proved (Lott \& Chung 2016; Grunau et al. 2017). Figure 1 also shows that fatherhood "per se" has no significant effect on working hours, confirming the results of Pollmann-Schult and Diewald (2007).

Figure 1: Fixed effects models for actual working hours for men in general with interaction between working time arrangements and children


Source: SOEP 2003-2019. Own calculations.

The interaction effects indicate whether the effect of fatherhood on men's actual working hours depends on the working time arrangement of the respondent. The magnitude of the effect is different between the various working time arrangements. The change from fixed to employer-oriented working hours is associated with a 0.7 -hour increase in the length of actual working hours for men. If fathers change from fixed to employer-oriented working hours, their hours increase about 0.2 hours less on a 0.1 confidence interval. Contrary to hypothesis 1a, employer-oriented working hours do not lead to longer working hours for fathers but to shorter working hours as compared to non-fathers. The transition from fixed daily working hours to flexitime leads to a 0.4 -hours increase of actual working hours for men. However, a change to flexitime has no significant effect on the hours worked by fathers as assumed in H1b. The transition from fixed daily working hours to selfdetermined working hours has the biggest effect of 1.2 hours more for men. For fathers, the change to self-determined working hours increases actual hours by about 0.4 hours more as assumed in H1c. This high increase reflects a work culture where fathers fear penalties due to the "ideal worker" norm if they also demand flexibility.

In the following models, we will only consider fathers and display the results of the effect of more flexibility in working time arrangements on working hours and on the time spent on childcare. Figure 2 shows the results for our main variables of interest, i.e., working time arrangements and parental leave experiences as black coefficient plots.

The time that is spent on paid work is not available for children and vice versa. Flexitime and self-determined working hours are associated with less time for childcare on a significant confidence level: If fathers switch from fixed working hours to flexitime, they look after children 0.5 hours less during the week and with self-determined working hours 0.6 hours less. In contrast to flexitime and self-determined working hours, which promise more control over working hours but lead to an increase in working hours and a decrease in childcare hours, a switch to employer-oriented regulations does not result in a reduction in childcare hours. Fathers are more likely to increase - but not significantly their contribution to childcare when they change to employee-oriented flexible working time arrangements, therefore not validating our hypothesis 2 a . One reason for this could be that employer-oriented regulations are more often associated with night and alternating shifts and therefore have less influence on daytime activities.

Figure 2 shows that parental leave experiences significantly affect childcare hours but not working hours. Fathers who experienced parental leave increased their time spent on childcare activities by 1.3 hours per week afterwards. However, our models do not confirm the results of Bünning (2015) that men who have experienced parental leave permanently shift their priorities from work to home, leading them to work significantly fewer hours after parental leave. The coefficients are also shown in the online appendix, Table A6.

But how do the results change if we insert an interaction between working time arrangements and parental leave experiences? Therefore, we add an interaction term to examine if and how the connection between hours and the different working time arrangements varies when taking the parental leave experience into account. The linear predictions of the interaction model are shown as grey coefficients in Figure 2 and along with the marginal effects as plots in Figure 3. A significant interaction effect would indicate that the effect of parental leave on the father's actual working hours depends on the working time arrangement of the respondent.

Figure 2: Fixed effects models for actual working and childcare hours for fathers with interaction between working time arrangements and parental leave experiences


Source: SOEP 2003-2019. Own calculations.
Parental leave is associated with negative changes in men's working hours when changing to flexible working time arrangements, with the exception of flexitime. The working hours of fathers switching from fixed schedules to self-determined working hours are 1.0 hours lower as compared to when they were without parental leave experience and having fixed daily working hours on a 0.1 confidence interval. Men experiencing parental leave and switching from fixed schedules to employer-oriented working hours also decrease their actual working hours, but to a higher extent ( -1.3 hours) so that the working hours altogether are almost an hour lower. While the main effects of flexible working time regulations - except for flexitime - show a slight increase, the insignificant positive main effect in the case of parental leave experiences disappears completely. In the case of childcare hours, the significant main effect of the experience of parental leave disappears. Concerning the working time arrangements, only the change to employer-oriented working hours shows a significant increase in childcare of 1.2 hours on a 0.1 confidence interval if the father has experienced parental leave.

This partly confirms hypothesis 3 a that parental leave and flexibility make a difference in working hours. Concerning employer-oriented and self-determined working hours in
particular, there is a smaller increase. With regard to hypothesis 3 b , there is little empirical evidence of an interaction between working time regulations and experience of parental leave with regard to the time required for childcare activities. The main effects change slightly, they even become insignificant on parental leave. The interaction effects are statistically insignificant for flexitime and self-determined working hours. For employer-oriented working hours the differences in the estimates are only significant at the 0.1 confidence level. Thus, hypothesis $3 b$ is only applicable concerning one type of flexibility.

These effects can also be seen in Figure 3 which presents the interaction effects in more detail. In the upper section, the graphs show the linear predictions of working and childcare hours for fathers by parental leave experiences. The lower part shows the predictive margins of actual working hours and childcare hours by contrasting working time arrangements and parental leave experiences. Given their confidence regions, the profiles appear to be statistically different if the graph is not overlapping the 0 line (or only marginally in the case of $\mathrm{p}<0.1$ ).

Figure 3: Linear prediction and contrasts of working and childcare hours for fathers with interaction between working time arrangements and parental leave experiences


Source: SOEP 2003-2019. Own calculations.

In summary, experience with parental leave is associated with a decrease in actual working hours and vice versa an increase in childcare hours when changing from fixed daily to employer-oriented working hours. The increased childcare activity of fathers when they change to flexible employer-oriented working hours may be explained by shift models, which are widespread here. These models allow fathers to be present more often during the day and to take on childcare tasks, possibly alternating with the partner. Fathers changing to flexitime do not reduce working hours or increase childcare hours significantly with parental leave experiences. Whereas fathers changing to self-determined working hours reduce working hours, we found no significant different increase in childcare hours depending on parental leave experiences.

However, it must also be mentioned that the interaction results with regard to the experience of parental leave and changes in working time regulations are still based on relatively few cases. With more case numbers, the results of the estimates could be more precise, reliable, and selective.

## 5. Summary and Conclusion

Our study aimed to examine the effects of different working time arrangements on actual working hours of fathers and their contribution to childcare activities. Previous research, on the one side, largely focused on gendered outcomes when investigating the association between working hours and working time arrangements. On the other side, studies largely neglected the impact of working time arrangements when analysing the effect of fatherhood or parental leave experiences on hours worked. We closed this research gap by including flexible working time arrangements as major explanatory variables for the actual working and childcare hours of fathers using panel data from Germany and panel regression models. We also examined whether egalitarian gender attitudes of fathers measured in parental leave experiences - make a difference if you have the option of flexible working time arrangements. The contribution of our paper is to be able to recognise the change in working and care hours when fathers transition to flexible working time models and the connection between parental leave and flexible working time regulations.

The results show that flexible working time regulations influence the working hours of fathers differently than those of non-fathers - but to different extents depending on the type of arrangement. The increase in the father's actual working hours is particularly high if the working time arrangement is self-determined. Conversely, we also see a reduction in the time spent on childcare activities; a change from fixed to employee-oriented flexible working time arrangements leads to a decrease in childcare hours. Linked to a changed understanding of roles, here the experience of parental leave, flexible working time regulations can also lead to shorter working hours. However, not in all types of flexible working time arrangements does this result in more participation in childcare.

Our results confirm that many fathers, although having flexible working time arrangements, do not use their possibilities to reduce actual working hours. The "ideal worker norm" is still prevalent, and fathers are subject to a "flexibility stigma", which
means they fear professional disadvantages such as wage losses and fewer opportunities for advancement if they take advantage of them. The parental leave experience helps to soften this understanding of roles and to reduce the increase in working hours during the transition to flexible working time regulations.

Overall, our findings show that flexible working time arrangements help decrease actual working hours when men have experienced parental leave. But the reduction remains relatively small, and we found little growth in the engagement of fathers in childcare. Fathers appreciate flexible working time arrangements, but they do not use them to spend more time with their children. Even if the short-term effect of parental leave experiences in the transition to flexible working time regulations on working and childcare hours - measured in minutes per week - may appear modest, in the longer term, these adjustments can be assessed positively if established patterns of division of labour between couples are changing and persist beyond the short term.

In this sense, our results support the notion that flexible working time arrangements are attached too much importance in their contribution to a reduced work-family conflict for fathers. Rather the male "work devotion scheme" (Blair-Loy 2003; 6; Blair-Loy \& Williams 2017) ensures that employees respond to the ability to work flexibly by exerting additional effort to return benefits to their employer (Kelliher \& Anderson 2010). Several reasons seem to play a role here.

First, German regulations still support the male breadwinner culture. Although the parental leave reform sets more incentives for fatherly engagement, the still existing tax splitting for married couples and the non-contributory family insurance in the health insurance discourages a more equal division of labour in households (Pollmann-Schult 2008). So far, Germany is only slowly making progress towards equitable gender arrangements in the division of paid work (Pollmann-Schult \& Reynolds 2017). Governmental tax policy needs to be changed to foster a more equal division of labour among couples and to provide financial incentives so that fathers reduce working hours to a greater degree. Second, gender role expectations and normative beliefs still ascribe men the breadwinner role and women the role of the housewife (e.g. Geisler \& Kreyenfeld 2011; Hobler et al. 2017; Pollmann-Schult 2008). This traditional division of labour even persists in partnerships with women being the main earner (Hipp \& Leuze 2015). Role expectations in society need to be changed towards a more equal division of labour, encouraging fathers to reduce working hours and increase childcare and household activities instead. In this context, the importance of supportive measures, such as equal parental leave times for mothers and fathers, is evident in order to support gender equality. Third, traditional gender norms in society are also practised in establishments. Consequently, many fathers do not feel eligible for measures to combine work and family better so far and they also risk disadvantages as colleagues may see them as less efficient and may question their engagement, motivation, and commitment (Bernhardt \& Bünning 2017). Here, supervisors play an important role and may act as a forerunner to develop a father-oriented company culture (Beste-Fopma \& Baisch 2017). One way is that supervisors clearly communicate and install flexible working time arrangements as family-friendly measure not specifically addressing women, but both men and women, thus creating a low barrier for fathers to use this measure.

However, a too reaching flexibility seems not to be expedient to combine work and family better as our results generally indicate increases in actual working hours with flexible working time arrangements. Instead, flexible working time arrangements with a certain degree of regulation setting a boundary between work and private life seem to be promising. Especially regulations of flexitime negotiated between employers' and employees' representatives considering (even more) employees' needs may be expedient. Research indicates that men take advantage of flexitime as gender-neutral flexibility systems to improve their work-life balance at the margins (Gregory \& Milner 2009). But also the stipulation and monitoring of agreed working hours in contracts and actual working hours are essential so that the difference between these working hours is limited to a necessary degree.

Please note some limitations to our study. First, with the underlying data, we can only investigate changes in employees' working time arrangement, but we do not have information on why this change occurs and who drives this change: it may be employerdriven or enforced by trade unions and works councils, influencing the degree to which employees can use it according to their needs. Second, the different categories for working time arrangements leave some scope/room for interpretation, and respondents may have trouble selecting the adequate category for describing their working time arrangement best. Third, a direct measure of changes in gender role attitudes in fathers is also not available in the data. Using more direct measures in the models would allow further analysis of the relationship between changes in attitudes towards gender roles, the use of flexible working time arrangements and their impact on working hours and childcare hours. The question arises as to whether it is "certain types of fathers" who reduce their working hours and take parental leave. It could be that fathers with an egalitarian gender stance consider reducing working hours for family reasons or using flexible working hours to reconcile work and private life better. This means that fathers with an egalitarian gender stance use flexible working time arrangements in order to shorten their working hours for family reasons and to reconcile work and family better. However, since the fixed effects estimators compare the same person over time, they can only be traced back to intra-individual changes. The fixed effects estimators, therefore, take into account the selfselection of employees, i.e. the selection for positions with special working time regulations. The variable "parental leave experience" thus acts as a proxy for the change in attitudes due to parental leave. However, it could also be the case that it is not parental leave that brings about a change in attitudes, but that parental leave could be driven by a change in attitudes. With a direct measure of gender attitudes, this relationship could be more closely undercut in future studies. Fourth, our results indicate that men changing to flexible working time arrangements after parental leave experiences reduce actual working hours. However, we do not know whether this working hours reduction actually leads to a better work-life balance for men. Future research may point to these open questions, especially what kind of organisational support may lead to a reduction in working hours for fathers. In times of a lack of qualified personnel and a new generation of parents, establishments have to react to fathers' needs. Indeed, research indicates that familyfriendliness is not only important for employees but also for employers believing that family-friendliness will pay off economically (Beste-Fopma \& Baisch 2017). But further alterations are necessary concerning what men consider socially acceptable (Pollmann-

Schult \& Reynolds 2017) and what organisations consider as a cultural norm in their opinion of shared, cooperative parenting, and responsibility.

## Data Availability

The data that support the findings of this study are available from the German Socioeconomic Panel (SOEP) maintained by the German Institute for Economic Research (DIW Berlin). It can be obtained free of charge after application at https://www.diw.de/en/soep. Stata do-files can be provided by the corresponding author. Data set version used for this study: Socio-Economic Panel (SOEP), data from 1984-2019, EU Edition (DOI: 10.5684/soep.core.v36eu).

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## Information in German

## Deutscher Titel

Wohl oder Übel? Wie sich mehr Flexibilität bei der Arbeitszeitgestaltung und Elternzeiterfahrungen auf die Arbeitszeiten und die Betreuungszeiten von Vätern in Deutschland auswirken

## Zusammenfassung

Fragestellung: In dieser Studie untersuchen wir den Einfluss von flexiblen Arbeitszeitregelungen und Elternzeiterfahrungen auf die tatsächlichen Arbeits- und Kinderbetreuungszeiten von Männern.

Hintergrund: Viele Väter möchten mehr Zeit mit ihren Kindern verbringen und aktiv am Familienleben teilnehmen, aber die meisten arbeiten nach der Geburt eines Kindes noch mehr Stunden als zuvor. Zur besseren Vereinbarkeit von Beruf und Familie könnte die Möglichkeit flexibler Arbeitszeitregelungen für Väter eine entscheidende Rolle spielen, auch um sich stärker in die Kinderbetreuung einzubringen.
Methode: Anhand von Längsschnittdaten des Sozio-oekonomischen Panels (SOEP) untersuchen wir den Zusammenhang zwischen flexiblen Arbeitszeitregelungen, Elternzeiterfahrungen, Arbeitszeiten und Kinderbetreuungszeiten. Basierend auf Daten zwischen 2013 und 2019 wurden Panel-Regressionsmodelle geschätzt.
Ergebnisse: Die Ergebnisse zeigen, dass der Wechsel von festen zu flexiblen Arbeitszeitregelungen zu einer Erhöhung der Arbeitszeit bei Männern und Vätern führt. Diese längeren Arbeitszeiten gehen bei Vätern mit einer Verkürzung des Zeitaufwands für Kinderbetreuungsaktivitäten einher, wenn auf flexible Arbeitszeitregelungen umgestellt wird. Väter mit Elternzeiterfahrung zeigen jedoch eine veränderte Zeitnutzung, wenn sie zu flexiblen Arbeitszeiten wechseln.
Schlussfolgerung: Flexible Arbeitszeitregelungen erweisen sich für Väter als ambivalent: Einerseits bieten sie Vätern neue Spielräume, andererseits führen sie aufgrund traditioneller Rollenmodelle zu längeren Arbeitszeiten und damit weniger Beteiligung an der Kinderbetreuung; aber Elternzeiterfahrungen machen einen Unterschied, was die Bedeutung dieser Regelungen für Väter betont.

Schlagwörter: arbeitgeberorientierte Arbeitszeiten, Elternzeit, feste Arbeitszeiten, Gleitzeit, selbstbestimmte Arbeitszeiten, Vaterschaft

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