

Lauber, Verena; Storck, Johanna

Conference Paper

The Impact of Family Friendly Workplaces on Satisfaction and Work

Beiträge zur Jahrestagung des Vereins für Socialpolitik 2016: Demographischer Wandel -
Session: Social Norms, No. F23-V3

Provided in Cooperation with:

Verein für Socialpolitik / German Economic Association

Suggested Citation: Lauber, Verena; Storck, Johanna (2016) : The Impact of Family Friendly Workplaces on Satisfaction and Work, Beiträge zur Jahrestagung des Vereins für Socialpolitik 2016: Demographischer Wandel - Session: Social Norms, No. F23-V3, ZBW - Deutsche Zentralbibliothek für Wirtschaftswissenschaften, Leibniz-Informationszentrum Wirtschaft, Kiel und Hamburg

This Version is available at:

<https://hdl.handle.net/10419/145667>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

The Impact of Family Friendly Workplaces on Satisfaction and Work

Verena Lauber*
University of Heidelberg

Johanna Storck†
DIW, Berlin

29th February 2016

Preliminary version - Please do not cite without author's permission- Comments welcome

Abstract

This paper provides novel evidence on the effect of family-friendly firm policies on satisfaction and working time of parents. The focus of this study is on two specific firm policies: Childcare support and flexible working schedules. We exploit the fact that since the mid 2000s an increasing share of employers react to their employees' needs by offering a family-friendly work environment. These changes over time allow us to identify causal effects of the two family-friendly policies. Identification is based on a difference-in-differences strategy in a panel dataset on families with young children in Germany (FiD). The model is combined with matching to decrease potential bias arising from observable factors correlated with the offer of family-friendly policies and the change in the considered outcomes. We find that for mothers, childcare support strongly increases satisfaction related to childcare and additionally raises life and job satisfaction. Particularly middle and lower educated mothers increase their working time when childcare support is offered. The effects are mainly driven by immediate use of childcare support. Flexible working schedules only affect mothers' job satisfaction, but do not seem to change family related satisfaction and working time. Fathers show nearly no reactions to either childcare support or flexible working schedules. Childcare support seems to be a truly family-friendly practice and valued by mothers, while this is not so clear for flexible working schedules.

JEL Classification: J13, J21, J28

Keywords: family-friendly workplaces, satisfaction, difference-in-differences, matching

Acknowledgments: We thank C. Katharina Spiess, Friedrich Breyer, Jan Marcus and Pia Schober for their advice. Comments of the participants of the Public Economics Seminar at the University of Konstanz and the Cluster Seminar at the German Economic Research Institute (DIW) in Berlin are gratefully acknowledged.

*verena.lauber@awi.uni-heidelberg.de

†jstorck@diw.de

1 Introduction

Labor force participation of women with children has been increasing steadily over the past years in most industrialized countries (OECD 2013). This development goes hand in hand with the challenge of reconciling work and family. Individuals in most countries report problems with work-life balance (e.g. Kotowska 2010; Lenain et al. 2014) and achieving the double goal of family and career is shown to be related to lower well-being than only realizing one of these goals (Bertrand 2013).¹ Unfavorable working and childcare conditions force parents, particularly mothers, to reduce working hours, change to less demanding jobs, or to exit the labor market in order to meet their children's needs. However, these discontinuous work histories are disadvantageous for their labor market and financial prospects (Beblo and Wolf 2002; BMFSFJ 2006; Boll 2012). Nowadays in Germany, as well as in other countries, a growing number of employers responds to their employees' changing requirements by offering family-friendly firm policies as fringe benefits, aiming either to retain or to attract parents as qualified employees.²

So far the success of family-friendly firm policies (FFPs) in influencing parental working decisions and easing the work-family conflict has not extensively been examined. There only exists limited, and almost no causal, evidence on how FFPs, such as childcare services and flexible working times or places, are perceived by employees and whether they actually support the reconciliation of work and family life. The present paper helps to filling this gap by analyzing the effects of two specific FFPs. These FFPs have a strong potential to decrease the burden for families with young children. Firstly, we consider the possibility to rely on easy accessible professional childcare while working. Secondly, we explore the effects of work schedules that are designed to provide the possibility to arrange working time flexibly and so to fulfill both work and family requirements.

The main contribution of the analysis is the estimation of causal effects stemming from the introduction of these FFPs on parental well-being. Well-being is captured by a broad set of satisfaction measures that allows an investigation into whether work as well as family related areas benefit from the provision of FFPs. These measures are satisfaction with life, job, family, and childcare, and the perception of time pressure. Further, it is addressed whether there is an accompanying effect on working behavior by analyzing the impact of FFPs on the time spent on work-related activities on weekdays as well as on agreed and actual working hours per week. The focus is set on mothers but in addition comparable estimates are provided for fathers.

The escalation of the introduction of FFPs in German firms since the mid-2000s allows us to identify causal effects of these policies based on the change over time. The analysis relies on a representative German panel dataset ("*Families in Germany*", *FiD*) that focuses on families with young children and captures parents with diverse living and occupational backgrounds. In addition to a vast amount of information on objective

¹See also OECD (2007: Chapter 2) on problems of reconciling work and family in OECD countries.

²Germany faces a shortages of skilled workers in several industries. This problem may not be solvable by solely relying on immigration (Bauer and Kunze 2004). Policies that enable mothers to participate in the labor market would release required skill reserves (Smeeding 2014).

and subjective characteristics of parents and children, this dataset contains information on the existence of FFPs at the parent's workplace. The panel structure allows the investigation to deal with unobserved heterogeneity by comparing differences over time and by conditioning on lagged dependent variables. After identifying the factors influencing the introduction of FFPs, this information is exploited in a matching approach to create an appropriate comparison group for the treated parents.

In line with the existing evidence, we find that socioeconomic background, occupation, and firm size are major determinants of whether a parent is offered the FFP. The estimation reveals reasonable and robust positive effects of childcare support on maternal satisfaction with childcare as well as on life and job satisfaction. Especially mothers with medium or lower education devote more time to work if childcare support is offered. Flexible working schedules only increase job satisfaction for mothers, but do not affect family-relevant areas. After controlling for other occupational changes, there are no robust effects of either childcare support or flexible working schedules found for fathers.

Germany is an interesting case to study family-friendly workplaces. Support for families provided by the German state is quite generous in international comparison.³ However, by setting disincentives to employment, particularly for mothers, these public policies deteriorate the position of females in the labor market (Datta Gupta et al. 2008; Bertrand et al. 2010) and interlock valuable productivity potential (Smeeding 2014). In the 2000s the German government changed the focus of its family policies to support concepts that facilitate the reconcilability of labor market participation and parenthood (see BMFSFJ 2006). Major changes include the introduction of a new parental leave policy, an increase in publicly subsidized daycare provision for children before the age of three, and a stronger emphasis on the role of employers in reducing the work-family conflict for their employees. In autumn 2006 the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth introduced the programs *Erfolgsfaktor Familie* (Success Factor Family) and *Familienbewusste Arbeitszeiten* (Family-conscious Working Hours) that provide support for employers in becoming more family-friendly. In addition, the program *Betriebliche Kinderbetreuung* (On-site Childcare) promotes the creation of daycare slots within a firm by paying €400 for each newly created full-time slot. By raising public attention and financial support, these programs seem to successfully stimulate positive attitudes towards family-friendliness in firms.⁴

However, evidence on the effects of such policies is still scarce. While childcare provision is generally found to have a positive impact on female employment and well-being (e.g. Spieß 2011; Schober and Schmitt 2013), there is limited evidence on the effects of daycare provided by firms. Apart from part-time work, which is also shown to be positively related to job satisfaction for mothers, but without having much of an effect on life satisfaction (e.g. Booth and Van Ours 2008), the effects of flexible working schedules are

³Since the 1980s parental leave schemes with relatively high compensation rates and long leave periods allow parents to take a considerable amount of time off (see Spieß 2011).

⁴An increasing number of firms began to participate in the *Success Factor Family* network since 2007 (see Figure A1). By becoming a member they show interest in family-friendliness and most of them also agreed to a general statement about supporting family-friendliness in their firm.

also not well analyzed. Particularly, economic studies identifying causal effects of FFPs for parents in representative settings are missing (see Section 2). Hence this study provides a valuable contribution by addressing several of these aspects.

The remainder is structured as follows. Section 2 gives an overview of the existing literature. Section 3 describes the dataset, sample selection, and the definitions of the outcomes and the treatments. Section 4 elaborates on the identification strategy and Section 5 provides the empirical results and the sensitivity analyses. Section 6 concludes with a discussion of the main findings.

2 Related Literature

Three strands of literature are relevant for the present analysis. The first strand investigates the factors facilitating the introduction of FFPs. These findings are incorporated in our identification strategy. Family-friendly firms are found to be larger, have a higher share of female workers and skilled workers; in a similar vein, employees receiving FFPs have higher occupational positions and qualifications (see Konrad and Mangel 2000; Sharpe et al. 2002; Gray and Tudball 2003; Budd and Mumford 2006; Heywood et al. 2007; Bloom et al. 2011). Furthermore, at the firm level, FFPs are positively associated with the number of vacant positions (Fakih 2014) and performance (Heywood et al. 2005).⁵ At the individual level, tenure (Gray and Tudball 2003; Fakih 2014) and having young children (Sharpe et al. 2002; Heywood et al. 2007) are also positively related to FFP offers. Gerlach and Schneider (2012) confirm a positive relationship of firm size and also region (East/West) with family-friendliness in Germany.

The second strand of literature explores the relationship between FFPs and different aspects of well-being. Ezra and Deckman (1996) and Saltzstein et al. (2001) analyze the relationship of FFPs and satisfaction. Their sample includes a very specific group of government employees in the US and they have no setup to identify causal effects. Ezra and Deckman (1996) reveal a positive correlation of on-site care and flexible schedules with childcare satisfaction for mothers. Similar to the present study there is no effect of on-site childcare for fathers. Saltzstein et al. (2001) estimate a positive association between job satisfaction and childcare support for mothers and single fathers. There is no such positive relationship for flex-time or part-time schedules.⁶

There are some studies that can more plausibly claim causality of the estimated effects. Possenriede and Plantenga (2014) and Artz (2010) estimate the effects of FFPs using fixed effect strategies. However, their studies are limited in making statements about work-life conflict, as they only investigate the effect on job satisfaction and neglect other aspects of parental well-being. Based on a Dutch Labor Supply Panel, Possenriede and Plantenga (2014) show that flexible work schedules are positively related to job satisfaction

⁵Some studies argue that productivity was affected by FFPs, but it is questionable whether these studies can claim causality (see Konrad and Mangel 2000; Bloom et al. 2011).

⁶Fiksenbaum (2014) also find a reduction of work-life conflict if family-friendly benefits are available. Work-life conflict is shown to be related to well-being, but also to physical health and productivity (see e.g. Duxbury and Higgins 2003).

for both women and men, independent of whether they have children.⁷ Similarly, based on the US-American NLSY data, Artz (2010) reveals a strong positive effect of flexible working schedules and a smaller positive effect of childcare support on job satisfaction. The effect for childcare only exists for parents, while in line with Posseriede and Plantenga (2014) flexible working schedules affect job satisfaction of employees with and without children. Kelly et al. (2014) provide causal evidence on the effect of family-friendly workplaces on well-being based on a randomized control intervention. Their treatment differs from our definition of FFPs, since it relates to a change in the work practice (e.g. training supervisors in demonstrating support for employees' private lives). These work practice interventions modestly reduce work-life conflict and improve family time adequacy.

The third related research area focuses on employees' behavior. This literature provides evidence for stronger commitment, e.g. a lower absenteeism rate, higher worker loyalty, and positive work attitudes if family-friendly firm policies are offered (see OECD 2007; Butts et al. 2013). Still, most of these estimates do not clearly imply causality. Baughman et al. (2003) try to capture causal effects by arguing that the estimates are less prone to bias if more time has passed since the introduction of the FFP. Analyzing a large set of policies, they find lower turnover rates and lower wages in firms, which offer childcare referrals and sick leave.⁸ There is no direct evidence for working time.

3 Data

The analysis is based on the "Families in Germany" dataset (*Familien in Deutschland, FiD*). This is a unique dataset on households with children in Germany. It was collected from 2010 through 2013. The dataset is exceptional in two ways: First, the largest part of the data consists of a "cohort-sample" of families with children born between 2007 and 2010. Second, the dataset includes detailed questions about the employer's FFP offers. Questions about family-friendliness at the workplace are designed in the style of the questions in the IAB Establishment Panel, the leading German survey on firms.⁹ FiD is a study related to the German Socio-Economic Panel Study (SOEP). Therefore, it adheres to the high standards set by the SOEP.¹⁰ In total more than 4500 households were sampled. All participating households filled out a household questionnaire, including information on all children in the household. Each household member of age 17 or older filled

⁷Posseriede and Plantenga (2014) further find that particularly part-time work raises "working-time fit" for mothers, but does not raise job satisfaction for mothers or fathers.

⁸There is some more evidence on the effect on wages. Heywood et al. (2007) identify negative earnings differentials for flexible working schedules, but not for childcare support and working at home. They argue that childcare and working at home dedicate attention to work and hence pay for themselves. On the contrary (Fakih 2014) finds a negative impact of childcare support on wages in Canada. As for many individuals wages are determined by collective agreements in Germany, FFPs could only have an impact on hourly wages in the long-run. The present study focuses on the short-run perspective.

⁹Even though the two datasets cannot directly be linked, the similarities in the questions facilitate the comparison between the results of the FiD analysis and findings in the IAB Establishment Panel. The IAB Establishment Panel is used in an accompanying paper by the authors.

¹⁰From 2014 on, the FiD-samples are integrated into the main SOEP for the data collection. For further details see Schröder et al. (2013).

out a personal questionnaire that includes a set of questions about their working behavior and workplace characteristics. In addition, the dataset includes information on life course events, labor market history and general work- and family related attitudes. Consequently, the FiD data is very well suited to analyze the effect of family friendliness on parents with young children. To our knowledge, there are very few international and no other German panel surveys of this size on families with children in pre- and primary-school age that include questions on family-friendly firm policies.

The present study focuses on households with two parents and at most four children.¹¹ Biological and social parents are not distinguished. The sample only includes employed parents, as only these parents can be offered FFPs.¹² Effect are estimated for families with a youngest child aged zero to eight years. By proceeding this way, families are captured for which reconciling work and childcare is most challenging, as children in this age bracket have to be cared for all day. Given the specific design of FiD with its focus on families with young children, a large share of the FiD data can be used for the present analysis. Most observations in our sample are made for families with a youngest child aged two to five. There are fewer observations for younger children because few mothers are employed with children under two years. Observations are excluded if there is a newborn child in the household because these families experience a major change which is unrelated to the workplace. Since most mothers do not work if they have a newborn child this adjustment mainly affects the sample size in the analysis of fathers.¹³

To make sure that the actual parent is captured and to rule out that unusual parents drive our results, mothers have to be, at most, 45 years older than their youngest child. In the case of fathers it is a less restrictive, they should not be more than 55 years older than the youngest child in the household. As common in the literature teenage parents, who make less than 0.5 percent of our sample, are excluded.¹⁴

3.1 Outcomes

The aim is to provide a broad picture of parental subjective well-being.¹⁵ It is captured by satisfaction in several work and family related areas:

- Life satisfaction: Satisfaction with *your life*.
- Job satisfaction: Satisfaction with *your work/job*.
- Family satisfaction: Satisfaction with *your family life*.
- Childcare satisfaction: Satisfaction with *the existing childcare options/possibilities*.

¹¹Single parents are excluded, as they are likely to react to FFP with different magnitudes. Despite oversampling, the group of *employed* single parents in the FiD data is too small for a separate analysis. There are few parents with more children. Therefore this group is difficult to balance.

¹²The partner is allowed to work zero hours.

¹³By proceeding this way, we do not exclude any treated observation for *Childcare Support* and only six treated observations for *Flex Schedule* in the analysis of mothers. For fathers it is eight treated observations for *Childcare Support* and 72 treated observations for *Flex Schedule*.

¹⁴These are defined by being less than 20 years older than the youngest child.

¹⁵A measure of experienced utility.

- Time Pressure: Experiencing *time pressure*.

Time pressure is measured on a five point scale with higher values indicating more time pressure experienced in the last four weeks. All other satisfaction items are measured on a 11-point Likert scale from 0 (absolutely unsatisfied) to 10 (absolutely satisfied).

Objective behavioral changes in working time are measured as:

- Time for Job: Hours devoted to work per *average weekday* (including travel, preparations, second job, overtime, work taken home...).
- Agreed Hours: *Agreed* working hours per week.
- Actual Hours: *Actual* working hours per week.

For the working time measures only ‘reasonable’ information is included, thus observations of zero hours are excluded.

3.2 Treatments

Identification is given by individuals for whom the status of being offered the respective FFP at their workplace changes in the observation period. This status is identified by the answer to the following question:¹⁶

“In some firms family-friendly policies are supported. How is it at your workplace: Are the following support policies offered by your employer?”

Childcare Support

- Tick either box: “Workplace childcare facilities (e.g. daycare (in-house kindergarten, crèche, day nursery), homework supervision in the company, slot in non-in-house daycare center).”
- Or tick box: “Sponsoring childcare.”

Flex Schedule

- Tick box: “Flexible organization of working hours (e.g. part-time, working time account (flex time), save working time to a long-term account).”

In addition to the availability of *Childcare Support* it is observed whether parents actually use the provided support. This information is exploited to disentangle the effect of the usage of this FFP from the effect of the provision, as provision as well as usage are found to yield benefits for work attitudes (see Butts et al. 2013).¹⁷

¹⁶The answer “I do not know” is coded as “no provision” because the individual can not be affected by provision. Only one percent of all individuals do not know whether an FFP is provided by the employer.

¹⁷Provision could also capture the possibility to make use of the FFP in the future if necessary and accompanying changes in the work environment and attitudes towards parents. See Section 5.3.1.

It is assumed that the individual has no direct impact on whether it is offered the FFP by the firm. Parents who could clearly influence the introduction, i.e. self-employed, are excluded from the analysis (see Section 4.3) and managers only represent a very small fraction of the remaining sample. Furthermore, the main effects are not driven by this group, but by parents with lower education (see Section 5.2.3). Selection into firms is also not the driving force as results remain stable when parents who switch employers are excluded (see Section 5.3.3). Other correlations of parental characteristics and whether a FFP is offered are addressed in the estimation strategy (see Section 4).

While both FFPs have the potential to raise satisfaction levels by easing the reconciliation between paid work and family, the expectations for the change in working time are not unambiguous. *Childcare Support* can be assumed to enable parents, particularly mothers if they are the main caretakers, to increase the time they devote to the job. However, a flexible scheduling of working time does not have to be accompanied by a higher amount of working time. *Flex Schedule*, as defined in the survey question, also includes part-time work, therefore the opposite could actually be the case.

4 Estimation Approach

If working in a firm that introduces the treatment FFP was assigned randomly, simple comparison of mean outcomes between treatment and control group could be interpreted as the average treatment effect. However, literature shows that firms with family-friendly working environments and the employees who work in these firms systematically differ from those without such policies. This is also true for our sample (see Section 5.1). Consequently, without any adjustments, the group of individuals in firms without FFP does not provide a valid counterfactual comparison group for the group with FFP.

The problem of unobserved heterogeneity is countered by combining two established identification approaches. To capture unobservable individual factors, the *FiD* panel dataset is exploited by applying difference-in-differences (DiD) and lagged dependent variable (LDV) specifications. Identification in the DiD model is based on the common trend assumption. In the LDV model unconfoundness given lagged outcomes is assumed. Combining these models with matching on a set of individual characteristics \mathbf{X}^M overcomes problems of observed heterogeneity by creating a valid control group and relaxes the common trend assumption by assuming that it holds conditional on \mathbf{X}^M , but not necessarily unconditionally.

The general idea behind these estimators is to compare individuals who received the FFP from one period to the other with nearly identical individuals who did not receive the FFP and to analyze how well-being and working time changed between these two groups. Heckman et al. (1999: chapter 8) characterize three sources of selection bias in evaluation studies. With matching we target the first and the second source: The lack of common support and differences in explanatory variables. The DiD and LDV specifications address the third source, the differences in unobservable characteristics.

It is essential to note that compared to the cross-section matching estimator, the identification assumptions

are weaker in the present panel setting. In the DiD model, causality does not hinge on the assumption that there are no unobserved factors connecting the *level* of the outcome to the treatment, but relies on the weaker assumption that the treatment status does not predict the *change* in the outcome conditionally on the set of observable characteristics. In the case of the LDV model, it is assumed that, conditional on \mathbf{X}^M and the lagged outcome variable, confounding unobservable factors are irrelevant (Lechner 2011). It can be argued that controlling for lagged outcomes also captures part of the time-invariant as well as relevant time-variant confounding factors. Hence the DiD- and LDV-matching estimators have the advantage of eliminating unobserved differences between treated and non-treated individuals which cross-section matching estimators fail to eliminate (see Smith and Todd 2005; Lechner 2011)¹⁸

We are interested in whether the offer of a specific FFP has any effect for parents compared to the situation in which they were not offered the FFP. Therefore, the control group consists of individuals who do not receive a FFP offer in any of two consecutive observation periods (post-treatment and pre-treatment period in the following). Consequently, the treatment group consists of individuals who receive the FFP offer in the post-treatment period, but were not offered the FFP in the pre-treatment period. Individuals are excluded if they lose access to the FFP from one period to the other.

In a robustness check, individuals who receive the FFP in the post-treatment as well as in the pre-treatment period are added to the control group. These individuals do not have a status change, because they always receive the treatment. For the main specification it is assumed that parents who do not have the FFP in the beginning are most comparable. It could also be argued that the group of parents who already received the FFP is more similar to those who start to receive the offer at some point in the observation period. The results are robust to this variation of the control group (see Table D1 and Table D2). We prefer our main specification for two reasons. Firstly because the estimated effect has a clear-cut interpretation. Secondly, if the FFP has a long-term effect, the group of ‘always-treated’ is not an appropriate comparison.

Three periods of change are observed in the data: 2010 to 2011, 2011 to 2012 and 2012 to 2013. However, in 2011 only individuals who changed their employer were asked about family-friendly policies. For parents who did not change their employer in 2011, only changes from 2010 to 2012 and 2012 to 2013 can be identified. Hence, if t refers to the post-treatment period, for most observations the pre-treatment period refers to $(t - 1)$. For observations in 2012 which belong to individuals who did not change their job in 2011, the pre-treatment period refers to 2010, hence $(t - 2)$. This applies to treated as well as to untreated individuals. A control is added for different time spans between two observation points.

The analysis proceeds in three steps. First, the propensity score is estimated. Second, matching is performed based on the propensity score. Third, a weighted regression is computed to estimate the average treatment effect on the treated.

¹⁸Famous implementations of similar DiD-matching estimators are Heckman et al. (1997) and Smith and Todd (2005).

4.1 Propensity Score Matching

The main analysis is conducted based on a sample that is weighted using matching weights. Since direct matching on a large set of covariates is difficult, the analysis proceeds with propensity score matching (PSM).¹⁹ PSM is a semi-parametric approach that allows for arbitrary heterogeneity related to the control variables. Conventional parametric regression methods can be sensitive to minor changes in the specification because of their heavy reliance on extrapolation. Therefore the matching estimator is particularly beneficial if the covariate distributions differ substantially between treatment and control group (Imbens 2014). Ho et al. (2007) argue that matching should be used as a data preprocessor for subsequent analysis to reduce the bias and to increase efficiency.

The conditional probability to participate in the treatment (the propensity score), i.e. the probability to be offered the FFP, is estimated based on a probit model.²⁰ The set of variables \mathbf{X}^M included in the estimation of the propensity score contains only variables that are either time invariant, measured before the treatment took place or are otherwise not affected by the treatment. Weights are derived based on the estimated propensity scores and are placed on the observations for the non-treated when computing the treatment effect.

Given the set of variables \mathbf{X}^M , it is assumed that the conditional independence assumption holds:

$$E_{P(\mathbf{X}^M)|D=1}[\Delta Y^{NT} | P(\mathbf{X}^M), D = 1] = E_{P(\mathbf{X}^M)|D=1}[\Delta Y^{NT} | P(\mathbf{X}^M), D = 0]. \quad (1)$$

$D = 1$ indicates that an individual received the treatment FFP. $\Delta Y^{NT} = Y^{NT,post} - Y^{NT,pre}$ indicates the change in the outcome in absence of the treatment ($T = treated$, $NT = non-treated$). $P(\mathbf{X}^M)$ refers to the propensity score. The estimates should be interpreted as the average treatment effect on the treated (ATT) because the observations for the non-treated individuals are weighted such that they provide an appropriate comparison group for the treated individuals. This estimate is given by:

$$\begin{aligned} \beta_{ATT} &= E[\Delta Y^T - \Delta Y^{NT} | D = 1, P(\mathbf{X}^M)] = E[\Delta Y^T | D = 1] - E[\Delta Y^{NT} | D = 1, P(\mathbf{X}^M)] \\ &= \frac{1}{n_T} \sum_{i \in G_T} \left[\Delta Y_i^T - \sum_{j \in G_{NT}} \omega(i, j) \Delta Y_j^{NT} \right] \end{aligned} \quad (2)$$

where n_T is the number of cases in the treatment group G_T . The observation for an individual i in the treatment group is matched to a counterfactual observation that is created using a weighted average of observations j in the control group G_{NT} . The weights ω are constructed using the well-established procedure of kernel matching.²¹ Unlike pair-wise matching, kernel matching does not only rely on the one nearest neighbor for the match, but uses kernel-weighted averages over multiple observations in the comparison

¹⁹This phenomenon is also known as the ‘curse of dimensionality’ (Rosenbaum and Rubin 1983).

²⁰The results are robust to using a logit model.

²¹ In case of kernel matching the weights take on the following form:
$$\omega(i, j) = \frac{K \left[\frac{p_i - p_j}{b} \right]}{\sum_j K \left[\frac{p_i - p_j}{b} \right]}$$

where b refers to the bandwidth and $K[\cdot]$ to the kernel function.

group.²² The main results are based on an epanechnikov kernel with a bandwidth of 0.06 as chosen by Heckman et al. (1997).²³ In line with Smith and Todd (2005), our results are robust to slight variations in the bandwidth.

A further requirement in the matching procedure is common support, given that the estimated treatment effects are only defined in the region of common support.²⁴ Implementing the common support condition ensures that any combination of characteristics observed in the treatment group can also be found in the control group. Figure 1 for mothers and Figure E1 for fathers depict a kernel density estimate of the propensity scores for the treatment and the control group. The graphs are based on the main specification including the controls described in Section 4.3. The estimates show that there exists a large region in which observations with the same propensity score are observed in the treatment and the control groups, this is referred to as overlap region.

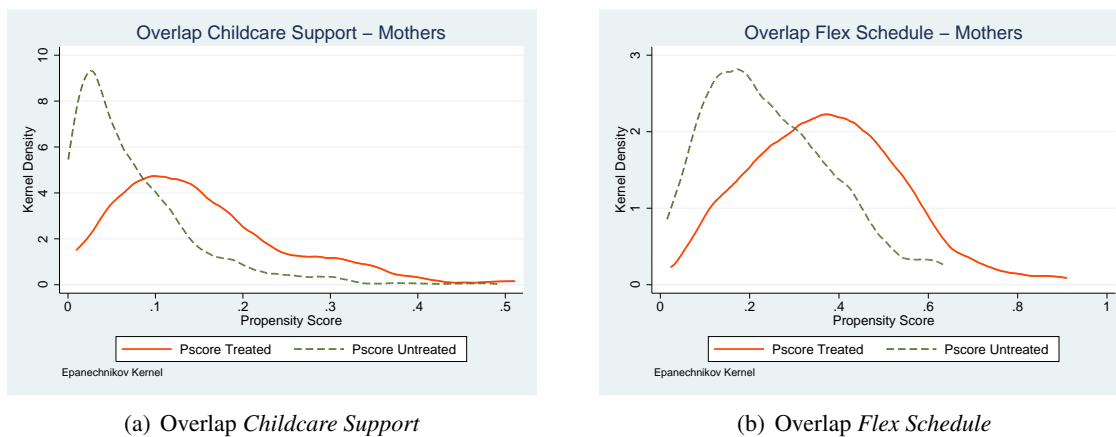


Figure 1: Overlap of Propensity Scores for Treated and Non-Treated - Mothers

In the main analysis, overlap is imposed by dropping treated observations whose propensity score is higher than the maximum value or lower than the minimum value in the control group. This mainly affects the analysis of *Flex Schedule* (see Figure 1). In some regions the propensity score density is rather low, even if there exist observations in the treatment and the control group. This is not uncommon (see Caliendo and Kopeinig 2008). Sensitivity of the results is tested using ‘trimming’. With trimming two percent of the treated observations at which the propensity score density in the control group is lowest are dropped. The results are robust to this adjustment.²⁵

In order to compare the covariate distribution across the matched groups and to test whether the groups are adequately balanced, the two-sample t-test proposed by Rosenbaum and Rubin (1985) is conducted. In addition, the quality of the matching is verified by analyzing the standardized percentage bias. This

²²Asymptotically, all matching procedures produce the same results because they reduce to exact matching in infinite samples (Caliendo and Kopeinig 2008).

²³The bandwidth is the smoothing parameter, its choice is analogous to the choice of the number of neighbors. A smaller bandwidth implies higher variance and lower bias.

²⁴Theoretically, in case of the ATT it is sufficient to assume $P(D = 1 | \mathbf{X}^M) < 1$.

²⁵Results are available on request.

standardized percentage bias is defined as the difference of the sample means in the treated and non-treated subsamples as a percentage of the square root of the average of the sample variance in the treated and in the non-treated group (see Rosenbaum and Rubin 1985).²⁶

The robustness of our results to the weighting procedure is tested by applying a different approach to calculate the weights, called entropy balancing (Hainmueller 2012). This optimization procedure derives weights such that the reweighted treatment and control group satisfy a pre-specified balancing condition. In our case this condition is the sample mean. Consequently, by imposing equality of the means in the treatment and control group, the essential criterion that is usually applied to judge the success of matching is automatically fulfilled.²⁷ The results are robust to this change in the weighting procedure (see Table C1 and Table C2).

4.2 Specification of the Regression Model

The model estimated based on the weighted sample can be formalized as follows:

$$\underbrace{\Delta Y_{i,t}}_{Y_{i,t}^{post} - Y_{i,t}^{pre}} = \alpha + \beta \Delta FFP_{i,t} + \gamma \mathbf{X}_{i,t} + \eta_t + \varepsilon_{i,t} \quad t = 2011, 2012, 2013 \quad (3)$$

where the change in well-being or working time within a person is explained by changes in the treatment $FFP_{i,t}$ between the post-treatment period t and the pre-treatment period. If only individuals with $FFP_{i,t}^{pre} = 0$ are compared it follows that $\Delta FFP_{i,t} = FFP_{i,t}^{post}$. The coefficient β measures the treatment effect. Year fixed effects η_t are included, because changes in the treatment status are observed over a period of three years.

In the present panel setting, this DiD approach corresponds to the first differences fixed effects model (Wooldridge 2010: section 10.6.3).²⁸ This leads to unbiased estimates if the introduction of FFP is a function of time-invariant characteristics. This assumption may not be reasonable for all outcomes. Therefore, an LDV specification is estimated in addition, assuming unconfoundedness given lagged outcomes (Imbens and Wooldridge 2009). In this approach it is assumed that the omitted variable bias does not arise from a time-invariant individual specific factor, but from pre-treatment trends. Hence, $Y_{i,t}^{pre}$ would be correlated with the error term (Imbens and Wooldridge 2009).²⁹ In repeated cross-section analyses, DiD is often the only option, but in panel data more information is available and can be exploited in the LDV approach (Imbens and Wooldridge 2009).

The difference in the specification between the DiD and the LDV model is that the LDV model includes $Y_{i,t}^{pre}$ as a control variable and $Y_{i,t}^{pre}$ is also included in the estimation of the propensity score. However, as described, identification is based on different assumptions (e.g. Lechner 2011). The LDV model can be

²⁶The matching weights and the test statistics are derived using the user written package `psmatch2` in Stata (see Leuven and Sianesi 2014).

²⁷See Marcus (2013) for an implementation of this procedure.

²⁸It is controlled for individual not group fixed effects, which increases precision.

²⁹If, for example, FFPs are introduced in firms with a good work environment, such that even in absence of the treatment employees are highly satisfied, the DiD may underestimate the true treatment effect because starting from a high level, there may only be a small increase in satisfaction possible in this group.

formalized as:³⁰

$$\Delta Y_{i,t} = \alpha + \beta \Delta FFP_{i,t} + \gamma \mathbf{X}_{i,t} + \delta Y_{i,t}^{pre} + \eta_t + \varepsilon_{i,t} \quad t = 2011, 2012, 2013 \quad (4)$$

Under reasonable assumptions, the two approaches have a nice property (see Guryan 2001; Angrist and Pischke 2008): If the treatment is positively selected on lagged outcomes, the DiD or fixed effects model produces negatively biased estimates. If the treatment is positively selected on fixed characteristics, the LDV estimator, that controls for lagged outcomes, produces positively biased estimates of the treatment effect. It is the other way around for negative selection on fixed effects or lagged outcomes. Hence the two estimates may be seen as bounds for the true estimate.³¹

In the simple DiD and LDV specifications, presented in this paper, the vector of variables $\mathbf{X}_{i,t}$ is empty and the treatment and control group are also not matched based on $\mathbf{X}_{i,t}^M$. In the main specification it is matched on and linearly controlled for $\mathbf{X}_{i,t}^M$. This combination of matching with regression adjustment is shown to reduce problems of misspecification and to improve precision of the estimates (Stuart 2010; Kreif et al. 2013).³²

An extended specification includes $\Delta \mathbf{X}_{i,t} = \mathbf{X}_{i,t}^{post} - \mathbf{X}_{i,t}^{pre}$ for a subset of $\mathbf{X}_{i,t}^M$ as linear controls to ensure that the results are not driven by changes that took place at the same time as the introduction of the FFP. If the FFP was introduced at the same time, as for example, a promotion, the positive effect of the promotion would mistakenly be attributed to the FFP.³³ However, we are careful not to include characteristics that were themselves affected by the change in the FFP under consideration (Angrist and Pischke 2008).

4.3 Balancing Observable Characteristics

To ensure a good balancing of the treated and the control group, two adjustments are made. Firstly, it is controlled for major factors that are correlated with the introduction of the FFP and the *change* in well-being or working time. Three groups of variables are included: i) family, individual, and partner characteristics; ii) workplace characteristics; and iii) regional characteristics (see Table B1 for details). Secondly, the sample is adjusted by excluding some observations with zero probability of receiving the treatment from the control group.

Family composition is captured by the individual's, the partner's and the children's age as well as by the number of children. Individuals are also balanced according to their socioeconomic status by controlling

³⁰Sometimes the following expression is used instead, which leads to the same β estimator:
 $Y_{i,t}^{post} = \alpha + \beta \Delta FFP_{i,t} + \gamma \mathbf{X}_{i,t} + (\delta + 1) Y_{i,t}^{pre} + \eta_t + \varepsilon_{i,t}$. Consequently, β can be interpreted as the value added by the treatment to a given level of the outcome under consideration.

³¹It is not reasonable to combine both approaches because in this case much stronger assumptions and dynamic panel data models are necessary (see e.g. Angrist and Pischke 2008).

³²The hybrid procedure of combining regression adjustment with reweighting methods is also referred to as 'double-robust' (Bang and Robins 2005). This approach leads to consistent estimates if either the propensity score, i.e. the estimation leading to the weights, or the outcome equation is correctly specified.

³³This is similar to the classic first differences or fixed effects setting, where all left- and right-hand variables are included as first difference or deviation from the mean.

for pre-treatment information on education, household income, net hourly wage, whether the individual possesses a high occupational position, tenure, the individual's unemployment record (unemployment experience), and full-time-work experience. In order to capture further restrictions, pre-treatment information on the partner's education, whether the partner participated in the labor market, whether the partner possesses a high occupational position and his or her unemployment experience are added. Parents with five or more years of unemployment are excluded because there is no observation the treated group with such a high unemployment record.³⁴

To measure the attitudes of the parents, the specification includes whether the mother agrees that women should have a stronger focus on children than on their careers and whether the father agrees that men and women should contribute equally to housework and family responsibilities. This should, for example, capture whether substituting parental care with daycare is perceived as positive or negative.

The availability of FFPs may depend on the employee's occupational function. A researcher might, for example, be allowed to work more flexibly than a janitor. The main specification is based on the ISCO88 codes, that capture occupational differences, but also industrial aspects.³⁵ The results are robust to controlling for industry based on the NACE coding instead.³⁶ In addition, working in the civil service sector is included and it is controlled for firm size and whether other FFPs are offered in the pre-treatment period. Hence the treatment and the control group are balanced by the overall family-friendliness of the firms.

To further ease balancing, industries and occupations without changes in the considered FFP over the observation period are excluded. These are the agricultural and mining sectors (about 2 percent of the sample) and individuals working as soldiers (less than 0.5 percent) or individuals in training (about 1 percent) in the pre-treatment period.

Parents who are self-employed are also excluded.³⁷ The argumentation behind this restriction is that the introduction of FFPs in the owned firm is most likely to be endogenous and impacted by the parent's needs and preferences.

Binary controls for city size capture differences arising from living in a city rather than in the countryside (e.g. commuting longer distances) and indicators for East and West Germany capture general differences in the availability of publicly subsidized daycare and the parent's attitudes towards maternal employment and daycare usage.³⁸

Changes occurring simultaneously with the introduction of the FFP are captured in the extended model by controlling for changes in hourly wages, in the occupational position, in the occupational function (ISCO88), in the overall family-friendliness measure and for whether there was a change of the employer.

³⁴We lose less than 4 percent of the sample.

³⁵E.g., machine operators are more likely to work in the automobile sector than in the media sector.

³⁶Results are available on request.

³⁷The partner is allowed to be self-employed.

³⁸The results are robust to including information on the availability of subsidized daycare for children under three years at the county level. Results are available on request.

5 Empirical Results

In this section the estimated effects of *Childcare Support* and *Flex Time* are discussed with a focus on mothers. Mothers often face more challenges reconciling work and family life because children are still mainly a mother's duty in many families (see e.g. Wall and Arnold 2007). However, we provide and discuss comparable estimates for fathers.

5.1 Mean Differences and Balancing

The mean values of the control variables for mothers are examined separately for the treated and the control groups for *Childcare Support* and *Flex Schedule*, respectively (see Table E1 and Table E2).³⁹ Column three in these tables displays the mean differences between the treated and the control group in the unmatched (raw) sample. As expected, given the existing evidence, the characteristics of the treatment and control groups differ significantly in the raw sample.

There are three groups of factors that are clearly related to the introduction of a FFP and are similar for *Childcare Support* and *Flex Schedule*. Firstly, in line with previous research, there are differences in socioeconomic status, hinting to higher socioeconomic status in the group of the treated. This is indicated by differences in household income, the individual's education and wages, and the partner's unemployment record, education and position. In the case of *Flex Schedule*, the partner's characteristics play a stronger role than for *Childcare Support*. Secondly, we can confirm that tenure plays a role for receiving FFPs. Finally, larger firms offer FFP more frequently.

There are also occupational differences. Regarding *Childcare Support*, mothers who are professionals or work in the civil service sector receive this FFP more often, the opposite is true for service and sales workers. Firms that were more family-friendly in the past are more likely to offer *Childcare Support*. The offer of *Flex Schedule* is slightly more frequent among managers. Parents in elementary occupations are less often offered FFPs.

For fathers, similar factors determine whether FFP is offered and most differences are even more pronounced (see Table E3 and Table E4). Most described differences are also found in the multivariate probit estimation of the propensity score, but the patterns are weaker, as some of these variables capture similar aspects (not shown).

The last row in Table E1 reveals that 71 mothers are observed in the treatment group for *Childcare Support*. The number of non-treated observations to draw from is large, which allows us to construct appropriate counterfactual observations for the treated. In the case of *Flex Schedule*, the treatment group is larger with 131 mothers (see Table E2). For fathers, the treatment group consists of 90 observations for *Childcare Support* and 147 for *Flex Schedule*. The control group in the case of *Childcare Support* is larger than for

³⁹Corresponding results for fathers are shown in Table E3 and Table E4.

Flex Schedule as more individuals are already offered *Flex Schedule* in the beginning, i.e. to them applies $FFP^{pre} \neq 0$.

Columns four in Table E1 and Table E2 display the difference in the means between treated and control groups in the matched sample. Based on the two-sample t-test, there exist no significant differences in the covariates between the two groups after matching on the propensity score, anymore (compare columns three and four of Table E1 and Table E2).

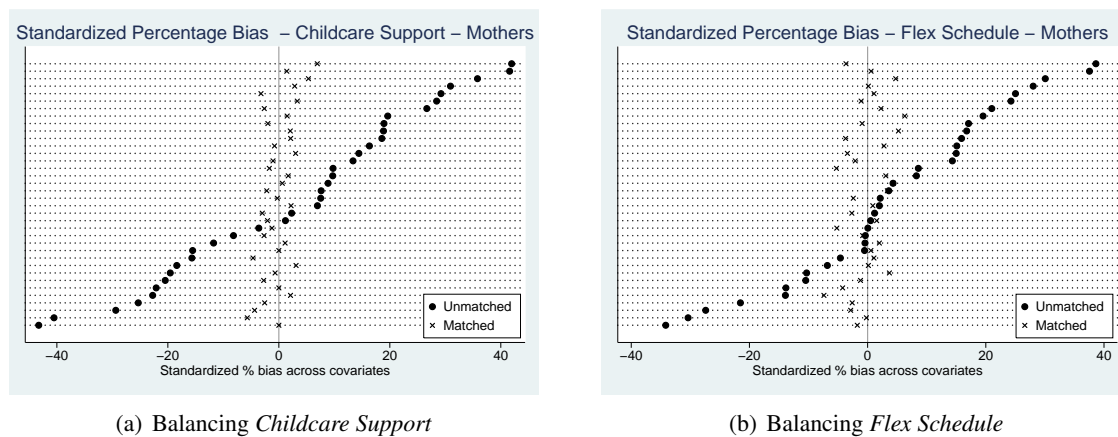


Figure 2: Standardized Percentage Bias before and after Matching - Mothers

The last column in these tables displays the distribution of the standardized percentage bias in the matched sample. To abbreviate the documentation, the means of the standardized percentage bias before and after matching are calculated (last row of Table E1 and Table E2). For mothers, the overall bias before matching is 19.6 for *Childcare Support* and 14.5 for *Flex Schedule*. A significant reduction can be achieved for both groups so that the average standardized percentage bias after matching is 2.3 in the case of *Childcare Support* and 2.6 for *Flex Schedule*. This enormous reduction shows that the matching procedure is able to balance the characteristics in the treatment group and the matched comparison group. Table E1 and Table E2 further reveal that in the matched sample the standardized percentage bias for all variables is far below ten percent and in nearly all cases around the five percent level. The gain in balance becomes even more apparent in the graphical representation in Figure 2, which depicts the standardized percentage bias in the matched and the raw sample. The differences in the unmatched samples diverge much further from zero than in the matched sample.

A similar reduction in the differences between treatment and control groups is reached for fathers (see Table E3 and Table E4). It is particularly important that factors related to the socioeconomic background are well balanced because these variables are highly suspected to be correlated with well-being and working time. A large part of the differences will be captured by the DiD and LDV setting and as matching is combined with regression adjustment, the variance is further reduced in the main analysis. As mentioned, estimates based on entropy balancing reveal that the results are very similar when a weighting procedure is applied

that explicitly equalizes the means in the treatment and the control group (see Table C1 and Table C2).

5.2 Results for Well-Being and Working Time

5.2.1 Main Effects of Childcare Support

Table 1 shows the results for the effect of *Childcare Support* for mothers. The estimated effects reveal that the provision of *Childcare Support* strongly raises satisfaction with the childcare by 0.46 to 0.72 points depending on the estimator. The LDV estimation leads to smaller effects than the DiD estimation, but the effects are still very pronounced. The LDV model takes into account that the treatment group experienced a lower level of care satisfaction in the pre-treatment period (see Table F1). Our estimations reveal for all outcomes that the higher the level of the outcome in the pre-treatment period, the smaller is the change in the outcome on average. Conditioning on the pre-treatment level of the outcome hence reduces the treatment effect in the case of care satisfaction. The overall positive effect on care satisfaction is a plausible result and indicates that public daycare provision does not sufficiently meet the demand of working women - this could be in terms of quantity, quality or flexibility.

All specifications show that *Childcare Support* offered by the mother's employer positively affects her life satisfaction. Particularly the LDV specification also reveals a positive effect on job satisfaction. The DiD estimates for job satisfaction are weaker but lead to the same qualitative conclusion. Different than for care satisfaction, the introduction of *Childcare Support* is more frequent among individuals experiencing a relatively high level of job satisfaction in the pre-treatment period, implying that the job was already rather enjoyable before the treatment took place (see Table F1). This explains that the LDV estimate exceeds the DiD estimate. There is no clear effect on time pressure.

Overall our findings suggest that mothers benefit in work, life and family relevant areas when their employer provides childcare support. This suggests a reduction of work-family conflicts. These positive effects are in line with previous research showing that on-site care is related to higher childcare satisfaction (Ezra and Deckman 1996) and job satisfaction (Saltzstein et al. 2001; Artz 2010).

There could be two underlying effects: A general increase in the availability of affordable high-quality daycare and the additional benefits of on-site childcare, e.g. by being more adaptable to parental working hours or being of higher quality than daycare by other providers. Thus to reveal the extent of the second mechanism, future research may aim at analyzing the effect of on-site childcare in countries with an extensive supply of public daycare, e.g. the Scandinavian countries. In countries such as Germany and the US the childcare market is restrictive, in terms of prices in the US and because of limited availability in Germany. Hence, both mechanisms may play a role in these settings.

Further estimates show that the increase in well-being is accompanied by an increase in working time. Column six in Table 1 reveals that on average there is a significant effect of 0.45 to 0.67 additional hours spent on work related activities per weekday. There is also a positive, but much smaller, tendency for actual

Table 1: Effects of *Childcare Support* - Mothers

	Well-Being				Δ Time Pressure	Working Time		
	Δ Satisfaction with... Life	Job	Family	Care		Δ Time Job	Δ Agreed Hours	Δ Actual Hours
<i>DiD</i>								
Δ Childcare Support	0.28** (0.14)	0.24 (0.23)	0.10 (0.15)	0.65** (0.30)	-0.09 (0.13)	0.54** (0.24)	0.05 (0.84)	0.52 (0.95)
Observations	993	965	993	800	993	938	993	986
<i>LDV</i>								
Δ Childcare Support	0.26** (0.12)	0.46*** (0.17)	0.09 (0.13)	0.49** (0.19)	-0.07 (0.10)	0.67*** (0.22)	0.59 (0.78)	1.10 (0.88)
Observations	993	965	993	800	993	938	993	986
<i>DiD plus Matching</i>								
Δ Childcare Support	0.27** (0.11)	0.17 (0.22)	0.03 (0.14)	0.79*** (0.28)	-0.03 (0.12)	0.59*** (0.22)	0.01 (0.67)	0.47 (0.77)
Observations	877	859	877	718	877	831	878	872
<i>LDV plus Matching</i>								
Δ Childcare Support	0.19* (0.10)	0.37** (0.16)	0.02 (0.12)	0.46** (0.19)	-0.02 (0.09)	0.54*** (0.19)	-0.05 (0.60)	0.39 (0.69)
Observations	877	859	877	718	877	831	878	872
<i>DiD plus Matching plus Changes</i>								
Δ Childcare Support	0.50*** (0.11)	0.36* (0.18)	0.10 (0.13)	0.72*** (0.27)	-0.10 (0.14)	0.50** (0.21)	-0.19 (0.61)	0.18 (0.74)
Observations	877	859	877	718	877	831	878	872
<i>LDV plus Matching plus Changes</i>								
Δ Childcare Support	0.36*** (0.10)	0.56*** (0.15)	0.07 (0.11)	0.53*** (0.20)	-0.11 (0.11)	0.45** (0.19)	-0.29 (0.55)	0.20 (0.66)
Observations	877	859	877	718	877	831	878	872

Note: Standard errors in parentheses are clustered at the individual level. */**/**: significance at the 10-/5-/1-percent level. All models include year-fixed effects. *Matching:* Matching on and regression adjustment for X^M (see Table B1). *Changes:* Regression adjustment for ΔX (see Section 4.3). The number of observations varies, because after matching not all observations are in the support.

Source: FiDv4.0.

weekly working hours. The effect for time devoted to the job might be stronger as individuals have to assess the time in hours per day. This is a relatively rough measure. However, it could also indicate that actually more work is done during the week as, unlike the other two measures, this variable does not count the working time on weekends. There is no significant increase in agreed working hours. Hence, if there is a change in working time it seems to be driven by supplementary work during the week, e.g. work at home, overtime or travels, but not the working time stipulated by the contract. The findings become clearer once analyzing effect heterogeneity with respect to education (see Section 5.2.3).

Childcare Support leaves well-being and working time of fathers mainly unchanged. The basic models suggest that the provision of *Childcare Support* raises job satisfaction for fathers. However, this result is not robust. When controlling for other changes taking place at the same time, this effect disappears (see Table G1). The effect of *Childcare Support* seems to be confounded with other changes, such as an increase in

wages or a change to a more satisfying occupational position. More research is needed to determine whether this policy is not suitable to reduce work-family conflict for fathers or whether such a conflict does not exist for the majority of fathers because childcare is still mainly a mother's duty.⁴⁰

5.2.2 Main Effects of Flex Schedule

In contrast to *Childcare Support*, *Flex Schedule* does not seem to affect work-life balance, but has only an effect on work related satisfaction. The estimates show a robust increase of job satisfaction by 0.41 to 0.54 points (see Table 2). However, there is no spillover to life satisfaction and also no accompanying change in satisfaction with family or childcare. There even seems to be a slight increase in perceived time pressure, but this effect is not statistically significant in all specifications. Controlling for the fact that the group of treated has experienced less time pressure before the treatment (see Table F2) reduces the effect.

Table 2: Effects of *Flex Schedule* - Mothers

	Well-Being				Working Time			
	<i>Life</i>	Δ Satisfaction with...		Δ Time	Δ Time	Δ Agreed	Δ Actual	
		<i>Job</i>	<i>Family</i>	<i>Care</i>	<i>Pressure</i>	<i>Job</i>	<i>Hours</i>	<i>Hours</i>
<i>DiD</i>								
Δ Flex Schedule	-0.07 (0.14)	0.54** (0.22)	-0.03 (0.13)	0.12 (0.25)	0.17* (0.09)	-0.04 (0.21)	-0.36 (0.74)	-0.15 (0.77)
Observations	471	453	471	395	471	435	471	466
<i>LDV</i>								
Δ Flex Schedule	-0.04 (0.12)	0.54*** (0.18)	-0.12 (0.12)	0.03 (0.21)	0.10 (0.08)	-0.04 (0.19)	-0.34 (0.68)	-0.16 (0.71)
Observations	471	453	471	395	471	435	471	466
<i>DiD plus Matching</i>								
Δ Flex Schedule	-0.13 (0.17)	0.42* (0.22)	-0.01 (0.13)	-0.12 (0.28)	0.16* (0.09)	0.01 (0.22)	-0.77 (0.76)	-0.55 (0.74)
Observations	463	443	463	371	463	423	463	459
<i>LDV plus Matching</i>								
Δ Flex Schedule	0.09 (0.14)	0.51*** (0.19)	-0.08 (0.12)	0.02 (0.21)	0.04 (0.07)	-0.17 (0.19)	-0.69 (0.66)	-0.85 (0.67)
Observations	463	443	463	371	463	423	463	459
<i>DiD plus Matching plus Changes</i>								
Δ Flex Schedule	-0.13 (0.18)	0.41** (0.20)	-0.06 (0.14)	-0.34 (0.30)	0.18 (0.11)	-0.18 (0.24)	-0.84 (0.73)	-0.43 (0.79)
Observations	463	443	463	371	463	423	463	459
<i>LDV plus Matching plus Changes</i>								
Δ Flex Schedule	-0.04 (0.13)	0.49*** (0.18)	-0.11 (0.12)	-0.16 (0.24)	0.13 (0.08)	-0.26 (0.23)	-0.94 (0.69)	-0.68 (0.75)
Observations	463	443	463	371	463	423	463	459

Note: Standard errors in parentheses are clustered at the individual level. */**/*: Significance at the 10-/5-/1-percent level. All models include year-fixed effects. *Matching*: Matching on and regression adjustment for X^M (see Table B1). *Changes*: Regression adjustment for ΔX (see Section 4.3). The number of observations vary, because after matching not all observations are in the support.

Source: FiDv4.0.

⁴⁰The finding that 40 percent of mothers but less than 20 percent of fathers use *Childcare Support* supports this hypothesis.

There is no significant change in working time. It appears as if mothers slightly reduce their working hours. This may be due to *Flex Schedule* also including the possibility to reduce working hours to part-time. Even fewer effects of *Flex Schedule* are related to a father's well-being. However, fathers significantly reduce their actual working time, which indicates that *Flex Schedule* is a means for fathers to give up working long hours. At the same time there is a tendency of a reduction in family satisfaction (see Table G2). This could be explained by *Flex Schedule* coming with requirements by the firm, for example, permanent disability or working on weekends, that reduce time available for the family. There is also evidence that it is not widely accepted if fathers use part-time or flex-time (see Coltrane et al. 2013; Williams et al. 2013), hence it is possible that fathers only work flexibly if there are challenges faced by the family. Our findings indicate that *Flex Schedule* should not be seen as a clear-cut family benefit. This is in line with previous research. Saltzstein et al. (2001) find, for example, that a positive relationship of flexible schedules with job satisfaction only exists in dual-earner households without children. Similarly Posseriede and Plantenga (2014) argue that flexible work schedules appeal more generally to employees and are not a policy explicitly targeted at parents. Work flexibility, at least in the way it is currently implemented, may not be far-reaching enough. Problems concerning childcare or family emergencies may not be solvable this way.

5.2.3 Heterogeneous Effects by Education

It can be assumed that the effects of FFPs are not homogeneous, because parents are to a different degree constrained in their allocation of time. Highly educated parents can be assumed to be less restricted than lower educated parents in choosing a convenient work environment and childcare arrangement, as they are, for example, more able to purchase private childcare or domestic help.

Effect heterogeneity with respect to education is analyzed based on interaction terms due to a relatively small sample size. For a clearer representation the two higher and two lower education groups are combined. Hence, there is only one interaction effect, separating the treatment effect for those with high education or high vocational training from those with lower education (vocational training and low education).⁴¹ This exercise provides valuable insights on effect heterogeneity by qualitatively analyzing the interaction effect. Our findings support the hypothesis of heterogeneous effects. The results presented in Table 3 show that even though all mothers value *Childcare Support*, revealed by higher levels of care satisfaction in both groups, mid-level and lowly educated mothers benefit more than highly educated mothers in terms of life satisfaction. There is a similar tendency for job satisfaction. In addition, there is an increase in working time, which is also not prevalent for highly educated mothers. In this analysis, the change in actual working hours clearly supports the conclusions based on the measure of hours devoted to work related activities on

⁴¹Implicitly it is assumed that there is no difference in the effect in the combined groups. Separating the groups leads to the same qualitative conclusions. The main effects are driven by the group with vocational training, as the group with low education is rather small.

Table 3: Effects of *Childcare Support* by Maternal Education - Mothers

	Well-Being				Δ Time Pressure	Δ Time Job	Working Time	
	Δ Satisfaction with... Life	Job	Family	Care			Δ Agreed Hours	Δ Actual Hours
<i>DiD plus Matching plus Changes</i>								
Δ Childcare Support	0.83*** (0.14)	0.42 (0.26)	0.09 (0.15)	0.54 (0.36)	-0.12 (0.18)	0.88*** (0.29)	1.03 (0.83)	2.30** (0.95)
Δ Childcare Support * High Educ./High Voc.	-0.80*** (0.21)	-0.15 (0.40)	0.01 (0.26)	0.40 (0.62)	0.06 (0.23)	-0.90** (0.40)	-2.95** (1.29)	-5.12*** (1.44)
Observations	877	859	877	718	877	831	878	872
<i>LDV plus Matching plus Changes</i>								
Δ Childcare Support	0.62*** (0.11)	0.62*** (0.19)	0.06 (0.14)	0.34 (0.28)	-0.15 (0.14)	0.85*** (0.26)	0.87 (0.80)	2.23** (0.90)
Δ Childcare Support * High Educ./High Voc.	-0.65*** (0.20)	-0.23 (0.31)	0.01 (0.24)	0.23 (0.40)	0.10 (0.18)	-0.90** (0.35)	-2.78** (1.19)	-4.83*** (1.28)
Observations	877	859	877	718	877	831	878	872

Note: Standard errors in parentheses are clustered at the individual level. */ **/ ***: Significance at the 10-/5-/1-percent level. All models include year-fixed effects. *Matching*: Matching on and regression adjustment for X^M (see Table B1). *Changes*: Regression adjustment for ΔX (see Section 4.3).

Source: FiDv4.0.

an average weekday. There is a similar, but smaller effect for agreed working time.

Hence, for mothers with medium and lower education the restriction on childcare availability may actually be relaxed by the introduction of *Childcare Support*. Highly educated mothers may value that childcare is offered, but their life may be less influenced by external restrictions on childcare anyway and the kind of childcare offered by *Childcare Support* may not be able to further relax their situation.

In the case of *Flex Schedule*, differences by education are not clear (see Table 4). The effect on job satisfaction exists for all groups. There seem to be stronger reductions in working time in the group of mothers with a high education background.

5.3 Sensitivity of the Treatment Effects

5.3.1 Actual Usage of Childcare Support

Butts et al. (2013) claim that the effect of provision of FFPs is at least as large as the effect of actual usage. It seems possible that part of the effect is driven by the offer because as long as the offer is continuing it increases future possibilities to reconcile work and family. In addition, the work environment may change, particularly the understanding for the specific challenges faced by parents. However, it would be surprising if the individuals who make use of the FFP would not benefit the most.

FiD only provides information on the usage of *Childcare Support*, while the usage of *Flex Schedule* is not observed. Therefore the hypothesis that provision has a separate effect can only be tested for *Childcare Support*. About 40 percent of mothers with *Childcare Support* available make directly use of it.⁴²

⁴²These are 27 observations for mothers.

Table 4: Effects of *Flex Schedule* by Maternal Education - Mothers

	Well-Being				Working Time			
	Δ Satisfaction with...	Δ Time	Δ Time	Δ Time	Δ Agreed	Δ Actual	Δ Agreed	Δ Actual
	Life	Job	Family	Care	Pressure	Job	Hours	Hours
<i>DiD plus Matching plus Changes</i>								
Δ Flex Schedule	-0.06 (0.20)	0.37 (0.24)	0.04 (0.17)	0.01 (0.32)	0.10 (0.13)	-0.11 (0.29)	-0.36 (0.91)	0.38 (1.01)
Δ Flex Schedule * High Educ./High Voc.	-0.19 (0.43)	0.12 (0.41)	-0.35 (0.27)	-1.14 (0.71)	0.23 (0.22)	-0.22 (0.51)	-1.54 (1.70)	-2.64 (1.62)
Observations	463	443	463	371	463	423	463	459
<i>LDV plus Matching plus Changes</i>								
Δ Flex Schedule	-0.00 (0.17)	0.50** (0.22)	-0.06 (0.16)	0.01 (0.29)	0.08 (0.09)	-0.20 (0.27)	-0.52 (0.85)	0.23 (0.93)
Δ Flex Schedule * High Educ./High Voc.	0.23 (0.26)	-0.10 (0.38)	-0.30 (0.24)	-0.57 (0.52)	0.11 (0.17)	-0.31 (0.45)	-0.90 (1.60)	-3.03* (1.60)
Observations	463	443	463	371	463	423	463	459

Note: Standard errors in parentheses are clustered at the individual level. */ **/ ***: Significance at the 10-/5-/1-percent level. All models include year-fixed effects. *Matching*: Matching on and regression adjustment for X^M (see Table B1). *Changes*: Regression adjustment for ΔX (see Section 4.3).

Source: FiDv4.0.

Usage has the stronger effect, particularly on life satisfaction and satisfaction with childcare (see Table 5). However, there are also positive, though smaller and weaker, effects of the pure availability on life and job satisfaction as well as as a positive tendency in care satisfaction. The offer with and the offer without usage seem to raise working time.

The FiD data does not provide direct information on whether the parent intends to use *Childcare Support* in the future, which might explain the effects of the provision. However, for the waves 2011 and 2012 it is possible to state that the same number of mothers begins to use *Childcare Support* until the next interview, as mothers use *Childcare Support* directly in the wave in which the offer is made the first time.

5.3.2 Balancing by all Pre-treatment Outcomes

It is a reasonable extension to balance the treatment and control group not only with respect to the pre-treatment value of the outcome under consideration, but to require balancing with respect to all eight outcomes that were assumed to be essential to assess the effect of the treatment. Including pre-treatment outcomes in the set of control variables reveals an even clearer and more significant pattern (see Table 6). In the case of *Childcare Support*, these estimates even imply a reduction of time pressure.⁴³

The effect of *Flex Schedule* on job satisfaction becomes also more pronounced. However, there are still no accompanying changes in satisfaction in other areas or in working time.

⁴³The sample size is slightly reduced, because for some observations the pre-treatment information particularly on care satisfaction is missing, while it is available for the other measures.

Table 5: Effects of *Childcare Support* - Provision and Usage - Mothers

	Well-Being				Δ Time Pressure	Δ Time Job	Working Time	
	Δ Satisfaction with...						Δ Agreed Hours	Δ Actual Hours
	Life	Job	Family	Care				
<i>DiD plus Matching plus Changes</i>								
Δ Offer & No use Care Support	0.37*** (0.14)	0.30 (0.25)	0.03 (0.16)	0.19 (0.27)	-0.16 (0.15)	0.62** (0.29)	-1.03 (0.73)	-0.05 (0.90)
Δ Offer & Use Care Support	0.69*** (0.14)	0.44 (0.35)	0.20 (0.19)	1.64*** (0.52)	0.00 (0.20)	0.32 (0.31)	1.04 (0.78)	0.52 (1.10)
Observations	877	859	877	718	877	831	878	872
<i>LDV plus Matching plus Changes</i>								
Δ Offer & No use Care Support	0.23* (0.14)	0.58*** (0.19)	0.02 (0.15)	0.20 (0.23)	-0.17 (0.11)	0.58** (0.25)	-0.95 (0.67)	-0.01 (0.84)
Δ Offer & Use Care Support	0.54*** (0.12)	0.54** (0.23)	0.14 (0.16)	1.10*** (0.28)	-0.02 (0.16)	0.27 (0.27)	0.67 (0.73)	0.52 (0.96)
Observations	877	859	877	718	877	831	878	872

Note: Standard errors in parentheses are clustered at the individual level. */**/*: Significance at the 10-/5-/1-percent level. All models include year-fixed effects. *Matching*: Matching on and regression adjustment for X^M (see Table B1). *Changes*: Regression adjustment for ΔX (see Section 4.3).

Source: FiDv4.0.

Table 6: Effects of FFPs - Including all Pre-treatment Outcomes - Mothers

	Well-Being				Δ Time Pressure	Δ Time Job	Working Time	
	Δ Satisfaction with...						Δ Agreed Hours	Δ Actual Hours
	Life	Job	Family	Care				
<i>LDV plus Matching (incl. all pre-treatment outcomes plus Changes)</i>								
Δ Childcare Support	0.32*** (0.10)	0.66*** (0.15)	0.10 (0.12)	0.53*** (0.19)	-0.28*** (0.10)	0.46** (0.21)	-0.30 (0.60)	0.17 (0.76)
Observations	771	769	771	700	771	736	771	770
<i>LDV plus Matching (incl. all pre-treatment outcomes) plus Changes</i>								
Δ Flex Schedule	0.11 (0.13)	0.70*** (0.18)	-0.14 (0.13)	-0.17 (0.23)	-0.02 (0.08)	-0.37 (0.25)	0.04 (0.60)	0.10 (0.72)
Observations	395	391	395	369	395	364	395	395

Note: Standard errors in parentheses are clustered at the individual level. */**/*: Significance at the 10-/5-/1-percent level. All models include year-fixed effects. *Matching*: Matching on and regression adjustment for X^M (see Table B1). *Changes*: Regression adjustment for ΔX (see Section 4.3).

Source: FiDv4.0.

5.3.3 Excluding ‘Non-Job-Changers’

It is assessed whether our findings are only driven by individuals who changed their employer during the observation period because they aimed for family-friendliness at their workplace. In the main specification it is assumed that if parents switch the employer, this is not primarily because of the FFP. This is not implausible given that many factors affect the choice of the workplace.

Still, if these “job-changing” individuals were rather unhappy with their previous situation, the effects on well-being might be overestimated. Even though, the specification which controls for the lagged dependent outcomes should partly capture this effect, a separate analysis for individuals who did not switch the employer (non-job-changers) is performed. The majority of treated mothers belongs to the non-job-changers.

More precisely 50 treated mothers for *Childcare Support* and 91 treated mothers for *Flex Schedule*, did not change their job before the FFP was offered.

Table 7: Effects of *Childcare Support* - Non-Job-Changing Mothers

	Well-Being				Δ Time Pressure	Δ Time Job	Working Time	
	Δ Satisfaction with... Life	Job	Family	Care			Δ Agreed Hours	Δ Actual Hours
<i>DiD plus Matching plus Changes</i>								
Δ Childcare Support	0.53*** (0.15)	0.46** (0.20)	0.12 (0.16)	0.71*** (0.26)	-0.19 (0.14)	0.70*** (0.24)	-1.04** (0.48)	-0.11 (0.77)
Observations	600	590	598	495	600	566	598	595
<i>LDV plus Matching plus Changes</i>								
Δ Childcare Support	0.30** (0.12)	0.58*** (0.17)	0.05 (0.12)	0.47** (0.20)	-0.29** (0.12)	0.57*** (0.22)	-0.92** (0.45)	0.01 (0.75)
Observations	600	590	598	495	600	566	598	595

Note: Standard errors in parentheses are clustered at the individual level. */ **/ ***: Significance at the 10-/5-/1-percent level. All models include year-fixed effects. *Matching*: Matching on and regression adjustment for X^M (see Table B1). *Changes*: Regression adjustment for ΔX (see Section 4.3).

Source: FiDv4.0.

Table 8: Effects of *Flex Schedule* - Non-Job-Changing Mothers

	Well-Being				Δ Time Pressure	Δ Time Job	Working Time	
	Δ Satisfaction with... Life	Job	Family	Care			Δ Agreed Hours	Δ Actual Hours
<i>DiD plus Matching plus Changes</i>								
Δ Flex Schedule	-0.25 (0.25)	0.63** (0.26)	-0.05 (0.21)	-0.02 (0.37)	0.08 (0.15)	-0.54** (0.26)	-1.12 (0.71)	-1.17 (0.81)
Observations	287	288	287	246	294	264	288	285
<i>LDV plus Matching plus Changes</i>								
Δ Flex Schedule	0.00 (0.16)	0.70*** (0.24)	-0.06 (0.18)	0.04 (0.26)	-0.07 (0.10)	-0.46* (0.25)	-1.02 (0.69)	-1.18 (0.78)
Observations	287	288	287	246	294	264	288	285

Note: Standard errors in parentheses are clustered at the individual level. */ **/ ***: Significance at the 10-/5-/1-percent level. All models include year-fixed effects. *Matching*: Matching on and regression adjustment for X^M (see Table B1). *Changes*: Regression adjustment for ΔX (see Section 4.3).

Source: FiDv4.0.

The estimates given in Table 7 suggest that the effects on well-being and time pressure are even larger when *Childcare Support* comes ‘at a surprise’, i.e. without changing the workplace. Only the increase in working hours is less pronounced. Rather, we observe a shift to devoting more time to work on weekdays. Additional estimates, not presented here, support this claim by suggesting that mothers who receive *Childcare Support* are less likely to work on weekends.

The estimates for *Flex Schedule* in the group of non-job-changers also confirm its positive effect on job satisfaction. The point estimate is of a similar size. However, if mothers do not switch employers, the opportunity to work flexibly seems to come along with a reduction in total working time by half an hour per day or more than one hour a week (see Table 8).

6 Conclusions

Family-friendly firm policies are implemented to ease the work-family conflict for working parents. Evidence on whether and which policies actually meet this goal is rare. We estimate the effect of two specific family-friendly policies on the well-being and working time of mothers and fathers. The two policies are childcare support provided by the firm and flexible working schedules. These policies seem particularly likely to reduce problems for parents to reconcile work and family life. Flexible working schedules might allow parents to better adapt to their offspring's often unforeseeable and constantly changing needs. On-site childcare and other childcare support by firms may be a valuable asset particularly in countries, such as Germany, where publicly subsidized daycare does not always sufficiently meet parental needs.

The empirical setting exploits the fact that since the mid-2000s an increasing share of employers respond to their employees' needs by offering a family-friendly work environment. These changes over time allow us to identify causal effects of the two family-friendly policies based on difference-in-differences and lagged dependent variable strategies in a panel dataset on families with young children in Germany (FiD). The panel models are combined with matching to decrease potential bias arising from factors correlated with the offer of the policies and the change in the considered outcomes.

In a first step we explore the individual, family, and job characteristics that are positively related to the introduction of a family-friendly firm policy at the parent's workplace. In line with the previous evidence we find that parents with high socioeconomic status and position, as well as longer tenure, are more likely to report that a family-friendly firm policy is established. Related to firm characteristics, firm size makes the most obvious difference.

The main analysis reveals that childcare support strongly increases maternal satisfaction with childcare and raises her life satisfaction and job satisfaction. Especially mid-level and lower educated mothers increase their working hours when childcare support is offered. These effects are driven by the direct usage of childcare, but it appears that the mere possibility to make use of the childcare support also yields benefits. Flexible working schedules only affect mothers' job satisfaction, but there are no accompanying effects for work behavior and family related satisfaction.

Results for fathers can be summarized in short: There are hardly any effects of family-friendly firm policies. Particularly the father's satisfaction shows no clear reaction to either childcare support or flexible working schedules. This is in accordance with findings suggesting that it is less accepted if fathers make use of these policies (see e.g. Coltrane et al. 2013; Williams et al. 2013) and furthermore with the evidence indicating that organizing family life is still mainly a mother's duty (see e.g. Wall and Arnold 2007).

The findings in this paper suggest that the subsidy that is currently paid to firms by the German government for setting up childcare slots at the workplace may actually reach the goal of helping mothers to reconcile work and family life. Childcare support also seems to be effective in increasing maternal working hours, but

only for mothers with a medium or low level of education.

Flexible working schedules, on the other hand, do not have a clear impact on the work-life balance. In the current form, a flexible organization of working hours does not increase mothers' or fathers' satisfaction in family related areas, though at least it raises maternal job satisfaction. Further research is needed to find out whether there are some aspects covered by our measure of working time flexibility, such as part-time work or a working hours account that could indeed reduce the work-family conflict, while others hinder reconcilability. Additionally, we need to investigate whether there are other factors that accompany flexible working schedules, for example permanent disposability by phone or email, that counteract a positive effect of this policy.

References

- ANGRIST, J. D. AND J.-S. PISCHKE (2008): *Mostly Harmless Econometrics: An Empiricist's Companion*, Princeton University Press.
- ARTZ, B. (2010): "Fringe Benefits and Job Satisfaction," *International Journal of Manpower*, 31, 626–644.
- BANG, H. AND J. M. ROBINS (2005): "Doubly Robust Estimation in Missing Data and Causal Inference Models," *Biometrics*, 61, 962–973.
- BAUER, T. K. AND A. KUNZE (2004): "The Demand for High-Skilled Workers and Immigration Policy," *Brussels Economic Review*, 47, 1–19.
- BAUGHMAN, R., D. DINARDI, AND D. HOLTZ-EAKIN (2003): "Productivity and Wage Effects of "Family-Friendly" Fringe Benefits," *International Journal of Manpower*, 24, 247–259.
- BEBLO, M. AND E. WOLF (2002): "How much Does a Year off Cost? Estimating the Wage Effects of Employment Breaks and Part-Time Periods," *Brussels Economic Review*, 45, 191–217.
- BERTRAND, M. (2013): "Career, Family, and the Well-Being of College-Educated Women," *American Economic Review*, 103, 244–50.
- BERTRAND, M., C. GOLDIN, AND L. F. KATZ (2010): "Dynamics of the Gender Gap for Young Professionals in the Financial and Corporate Sectors," *American Economic Journal: Applied Economics*, 2, 228–55.
- BLOOM, N., T. KRETSCHMER, AND J. VAN REENEN (2011): "Are Family-Friendly Workplace Practices a Valuable Firm Resource?" *Strategic Management Journal*, 32, 343–367.
- BMFSFJ (2006): "Siebter Familienbericht Familie zwischen Flexibilität und Verlässlichkeit - Perspektiven für eine lebenslaufbezogene Familienpolitik," <http://www.bmfsfj.de> [Online, accessed 24-02-2015].
- BOLL, C. (2012): "Lohneinbußen von Frauen durch geburtsbedingte Erwerbsunterbrechungen: Der Schattenpreis von Kindern und dessen mögliche Auswirkungen auf weibliche Spezialisierungsentscheidungen im Haushaltszusammenhang. Eine quantitative Analyse auf Basis von SOEP-Daten," in *Sozialökonomische Schriften*, ed. by W. Rürup, Bert und Sesselmeier, , Frankfurt Main: Verlag Peter Lang.
- BOOTH, A. L. AND J. C. VAN OURS (2008): "Job Satisfaction and Family Happiness: The Part-Time Work Puzzle," *The Economic Journal*, 118, F77–F99.
- BUDD, J. W. AND K. A. MUMFORD (2006): "Family-Friendly Work Practices in Britain: Availability and Perceived Accessibility," *Human Resource Management*, 45, 23–42.

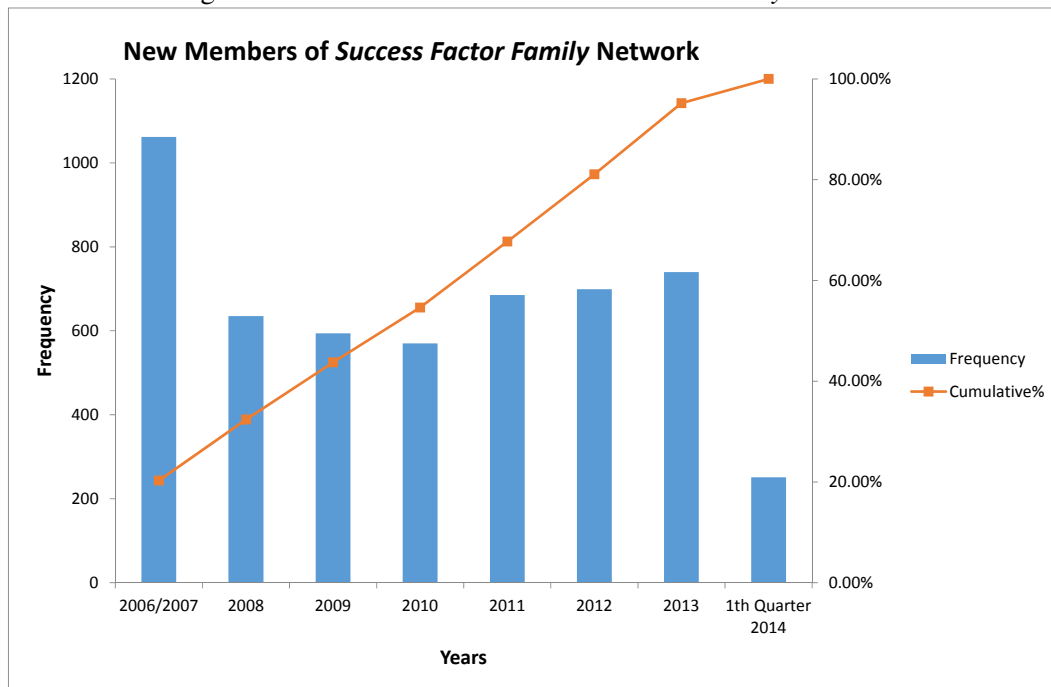
- BUTTS, M. M., W. J. CASPER, AND T. S. YANG (2013): “How Important are Work–Family Support Policies? A Meta-Analytic Investigation of Their Effects on Employee Outcomes,” *Journal of Applied Psychology*, 98, 1–25.
- CALIENDO, M. AND S. KOPEINIG (2008): “Some Practical Guidance for the Implementation of Propensity Score Matching,” *Journal of Economic Surveys*, 22, 31–72.
- COLTRANE, S., E. C. MILLER, T. DEHAAN, AND L. STEWART (2013): “Fathers and the Flexibility Stigma,” *Journal of Social Issues*, 69, 279–302.
- DATTA GUPTA, N., N. SMITH, AND M. VERNER (2008): “The Impact of Nordic Countries’ Family Friendly Policies on Employment, Wages, and Children,” *Review of Economics of the Household*, 6, 65–89.
- DUXBURY, L. E. AND C. A. HIGGINS (2003): *Work-life Conflict in Canada in the New Millenium: A Status Report*, Health Canada, Population and Public Health Branch.
- EZRA, M. AND M. DECKMAN (1996): “Balancing Work and Family Responsibilities: Flextime and Child Care in the Federal Government,” *Public Administration Review*, 56, 174–179.
- FAKIH, A. (2014): “Availability of Family-Friendly Work Practices and Implicit Wage Costs: New Evidence from Canada,” IZA Discussion Paper No. 8190.
- FIKSENBAUM, L. M. (2014): “Supportive Work–Family Environments: Implications for Work–Family Conflict and Well-Being,” *The International Journal of Human Resource Management*, 25, 653–672.
- GERLACH, I. AND H. SCHNEIDER (2012): *Betriebliche Familienpolitik - Kontexte, Messungen und Effekte*, Wiesbaden: Springer.
- GRAY, M. AND J. TUDBALL (2003): “Family-Friendly Work Practices: Differences Within and Between Workplaces,” *The Journal of Industrial Relations*, 45, 269–291.
- GURYAN, J. (2001): “Desegregation and Black Dropout Rates,” NBER Working Paper No. 8345.
- HAINMUELLER, J. (2012): “Entropy Balancing for Causal Effects: A Multivariate Reweighting Method to Produce Balanced Samples in Observational Studies,” *Political Analysis*, 20, 25–46.
- HECKMAN, J., H. ICHIMURA, AND P. TODD (1997): “Matching as an Econometric Evaluation Estimator: Evidence from Evaluating a Job Training Program,” *Review of Economic Studies*, 64, 605–654.
- HECKMAN, J. J., R. J. LALONDE, AND J. A. SMITH (1999): “The Economics and Econometrics of Active Labor Market Programs,” *Handbook of Labor Economics*, 3, 1865–2097.

- HEYWOOD, J. S., W. S. SIEBERT, AND X. WEI (2005): “High Performance Workplaces and Family Friendly Practices: Promises Made and Promises Kept,” IZA Discussion Paper No. 1812.
- (2007): “The Implicit Wage Costs of Family Friendly Work Practices,” *Oxford Economic Papers*, 59, 275–300.
- HO, D. E., K. IMAI, G. KING, AND E. A. STUART (2007): “Matching as Nonparametric Preprocessing for Reducing Model Dependence in Parametric Causal Inference,” *Political Analysis*, 15, 199–236.
- IMBENS, G. (2014): “Matching Methods in Practice: Three Examples,” NBER Working Paper No. 19959.
- IMBENS, G. W. AND J. M. WOOLDRIDGE (2009): “Recent Developments in the Econometrics of Program Evaluation,” *Journal of Economic Literature*, 47, 5–86.
- KELLY, E. L., P. MOEN, J. M. OAKES, W. FAN, C. OKECHUKWU, K. D. DAVIS, L. B. HAMMER, E. E. KOSSEK, R. B. KING, G. C. HANSON, ET AL. (2014): “Changing Work and Work-Family Conflict Evidence from the Work, Family, and Health Network,” *American Sociological Review*, 79, 485–516.
- KONRAD, A. M. AND R. MANGEL (2000): “The Impact of Work-Life Programs on Firm Productivity,” *Strategic Management Journal*, 21, 1225–1237.
- KOTOWSKA, I. (2010): *Second European Quality of Life Survey: Family Life and Work*, Luxembourg: Office for Official Publications of the European Communities.
- KREIF, N., R. GRIEVE, R. RADICE, AND J. S. SEKHON (2013): “Regression-Adjusted Matching and Double-Robust Methods for Estimating Average Treatment Effects in Health Economic Evaluation,” *Health Services and Outcomes Research Methodology*, 13, 174–202.
- LECHNER, M. (2011): “The Estimation of Causal Effects by Difference-in-Difference Methods,” Unveristy of St. Gallen, Discussion Paper No. 2010-28.
- LENAIN, P., S. FLÈCHE, AND A. CALDERA SÁNCHEZ (2014): “Improving Well-Being in the United States,” OECD Economics Department Working Papers No. 1146.
- LEUVEN, E. AND B. SIANESI (2014): “PSMATCH2: Stata Module to Perform full Mahalanobis and Propensity Score Matching, Common Support Graphing, and Covariate Imbalance Testing,” Statistical Software Components.
- MARCUS, J. (2013): “The Effect of Unemployment on the Mental Health of Spouses - Evidence from Plant Closures in Germany,” *Journal of Health Economics*, 32, 546–558.
- OECD (2007): *Babies and Bosses: Reconciling Work and Family Life: A Synthesis of Findings for OECD Countries*, Paris: OECD Publishing.

- (2013): “Employment Rate of Women 2013/1,” <http://dx.doi.org/10.1787/emp-fe-table-2013-1-en> [Online, accessed 09-03-2015].
- POSSENRIEDE, D. S. AND J. PLANTENGA (2014): “Temporal and Locational Flexibility of Work, Working-Time Fit, and Job Satisfaction,” IZA Discussion Paper No. 8436.
- ROSENBAUM, P. R. AND D. B. RUBIN (1983): “The Central Role of the Propensity Score in Observational Studies for Causal Effects,” *Biometrika*, 70, 41–55.
- (1985): “Constructing a Control Group Using Multivariate Matched Sampling Methods That Incorporate the Propensity Score,” *The American Statistician*, 39, 33–38.
- SALTZSTEIN, A. L., Y. TING, AND G. H. SALTZSTEIN (2001): “Work-Family Balance and Job Satisfaction: The Impact of Family-Friendly Policies on Attitudes of Federal Government Employees,” *Public Administration Review*, 61, 452–467.
- SCHÖBER, P. S. AND C. SCHMITT (2013): “Day-Care Expansion and Parental Subjective Well-Being: Evidence from Germany,” SOEPPapers No. 602.
- SCHRÖDER, M., R. SIEGERS, AND C. K. SPIESS (2013): ““Familien in Deutschland” - FiD: Enhancing Research on Families in Germany,” SOEPPapers No. 556.
- SHARPE, D. L., J. M. HERMSEN, AND J. BILLINGS (2002): “Factors Associated with Having Flextime: A Focus on Married Workers,” *Journal of Family and Economic Issues*, 23, 51–72.
- SMEEDING, T. M. (2014): “Adjusting to the Fertility Bust,” *Science*, 346, 163–164.
- SMITH, J. A. AND P. E. TODD (2005): “Does Matching Overcome LaLonde’s Critique of Nonexperimental Estimators?” *Journal of Econometrics*, 125, 305–353.
- SPIESS, C. K. (2011): “Vereinbarkeit von Familie und Beruf – wie wirksam sind deutsche “Care Policies”?” *Perspektiven der Wirtschaftspolitik*, 12, 4–27.
- STUART, E. A. (2010): “Matching Methods for Causal Inference: A Review and a Look Forward,” *Statistical Science: A Review Journal of the Institute of Mathematical Statistics*, 25, 1–21.
- WALL, G. AND S. ARNOLD (2007): “How Involved Is Involved Fathering? An Exploration of the Contemporary Culture of Fatherhood,” *Gender & Society*, 21, 508–527.
- WILLIAMS, J. C., M. BLAIR-LOY, AND J. L. BERDAHL (2013): “Cultural Schemas, Social Class, and the Flexibility Stigma,” *Journal of Social Issues*, 69, 209–234.
- WOOLDRIDGE, J. M. (2010): *Econometric Analysis of Cross Section and Panel Data*, Cambridge, MA: MIT press, 2nd ed.

A Success Factor Family Network

Figure A1: New Members of *Success Factor Family Network*



Note: Number of new members per year and cumulative members in percent. Own calculations.

Source: Data provided by *Deutscher Industrie- und Handelskammertag (DIHK)*.

B Description of Control Variables

Table B1: Description of Conditioning Variables

Variable	Scale	Description
Family Characteristics		
Age Youngest Child	Continuous	Age of the youngest child in years.
Youngest Child Age < 3	Binary	Youngest child is younger than three years.
No School Aged Child	Binary	Youngest child is not yet in school.
2 Children	Binary	Number of children under 17 years (in household). References Group: One child.
3-4 Children		
Household Income (p)	Continuous	Household income in €1000.
Parental Characteristics (Individual and Partner)		
Age ⁺	Continuous	Age in years.
Family Attitude ⁺	Binary	Women: Strongly agree/agree that mothers should care more for children than career. Men: Strongly agree/agree that men and women should care equally for family and household.
Low Education (p) (ISCED 1/2)	Binary	Highest Educational degree (ISCED 1997 Coding). References Group: Vocational Training (ISCED 3/4).
High Vocational (p) (ISCED 5)		
High Education (p) (ISCED 5A/6) ⁺		
High Job Position (p) ⁺	Binary	(High) qualified professional or managerial worker or high-level/executive civil servant.
Hourly Wage (p)	Continuous	Hourly wage in €.
Tenure (p)	Continuous	Tenure in years.
Unempl. Exp.(p) ⁺	Continuous	Unemployment experience in years.
Full-Time. Exp.(p) ⁺	Continuous	Full-time work experience in years.
Partner not working (p)	Binary	Partner did not participate in the labor market.
Workplace Characteristics		
Large Firm	Binary	Number of employees in firm. Large: > 100 Employees, Small: ≤ 20 Employees References Group: 20-100 employees.
Small Firm		
Family-Friendly (p)	Binary	Firm offers two FFP out of “Contact during parental leave”, “Any other childcare support” or “Support in Emergencies”.
Civil Service	Binary	Work in civil service sector.
Manager	Binary	Occupation (ISCO88 summarized). Reference Group: Clerical Support Worker,
Professionals		
Technicians & Assoc. Professionals		
Service & Sales Worker		
Craft & Trades Worker		
Plan & Machine Operator		
Elementary Occupations		
Regional Characteristics		
Small City/Rural	Binary	Urbanization. Indicating living small city or rural areas (<20000 inhabitants).
West Germany	Binary	Living in West Germany.
Years Change-Period	Values 1/2	Indicates whether one or two years lie between post-treatment and pre-treatment period.

Note: ⁺ Variables included for individuals themselves and partner.

Note: (p): Measured in pre-treatment period.

C Weighting by Entropy Balancing

Table C1: Entropy Balancing *Childcare Support* - Mothers

	Well-Being				Δ Time Pressure	Δ Time Job	Working Time	
	Δ Satisfaction with... Life	Job	Family	Care			Δ Agreed Hours	Δ Actual Hours
<i>DiD plus Matching plus Changes</i>								
Δ Flex Schedule	-0.23 (0.17)	0.42* (0.21)	-0.09 (0.15)	-0.26 (0.31)	0.19 (0.11)	-0.23 (0.23)	-0.70 (0.65)	-0.48 (0.73)
Observations	993	965	993	800	993	938	993	986
<i>LDV plus Matching plus Changes</i>								
Δ Flex Schedule	-0.08 (0.13)	0.54*** (0.19)	-0.16 (0.13)	-0.11 (0.27)	0.09 (0.09)	-0.30 (0.22)	-0.67 (0.63)	-0.51 (0.71)
Observations	993	965	993	800	993	938	993	986

Note: Standard errors in parentheses are clustered at the individual level. */**/*: Significance at the 10-/5-/1-percent level. All models include year-fixed effects. *Matching:* Matching on and regression adjustment for X^M (see Table B1). *Changes:* Regression adjustment for ΔX (see Section 4.3).

Source: FiDv4.0.

Table C2: Entropy Balancing *Flex Schedule* - Mothers

	Well-Being				Δ Time Pressure	Δ Time Job	Working Time	
	Δ Satisfaction with... Life	Job	Family	Care			Δ Agreed Hours	Δ Actual Hours
<i>DiD plus Matching plus Changes</i>								
Δ Flex Schedule	-0.21 (0.17)	0.40* (0.21)	-0.08 (0.15)	-0.24 (0.31)	0.19* (0.11)	-0.25 (0.23)	-0.73 (0.66)	-0.47 (0.73)
Observations	471	453	471	395	471	435	471	466
<i>LDV plus Matching plus Changes</i>								
Δ Flex Schedule	-0.07 (0.13)	0.52*** (0.19)	-0.15 (0.13)	-0.11 (0.27)	0.09 (0.09)	-0.32 (0.22)	-0.73 (0.64)	-0.54 (0.70)
Observations	471	453	471	395	471	435	471	466

Note: Standard errors in parentheses are clustered at the individual level. */**/*: Significance at the 10-/5-/1-percent level. All models include year-fixed effects. *Matching:* Matching on and regression adjustment for X^M (see Table B1). *Changes:* Regression adjustment for ΔX (see Section 4.3).

Source: FiDv4.0.

D Including Always-Treated

Table D1: Effects of *Childcare Support* incl. Always-Treated - Mothers

	Well-Being				Δ Time Pressure	Δ Time Job	Working Behavior	
	Δ Satisfaction with...						Δ Agreed Hours	Δ Actual Hours
	Life	Job	Family	Care				
<i>DiD plus Matching plus Changes</i>								
Δ Childcare Support	0.48*** (0.11)	0.40** (0.17)	0.10 (0.13)	0.67*** (0.25)	-0.14 (0.13)	0.46** (0.20)	-0.03 (0.58)	0.53 (0.72)
Observations	1011	989	1011	831	1011	964	1011	1005
<i>LDV plus Matching plus Changes</i>								
Δ Childcare Support	0.35*** (0.10)	0.56*** (0.13)	0.10 (0.11)	0.44** (0.17)	-0.15 (0.10)	0.37** (0.18)	-0.26 (0.51)	0.42 (0.63)
Observations	1011	989	1011	831	1011	964	1011	1005

Note: Standard errors in parentheses are clustered at the individual level. */ **/ ***: Significance at the 10-/5-/1-percent level. All models include year-fixed effects. *Matching:* Matching on and regression adjustment for X^M (see Table B1). *Changes:* Regression adjustment for ΔX (see Section 4.3).

Source: FiDv4.0.

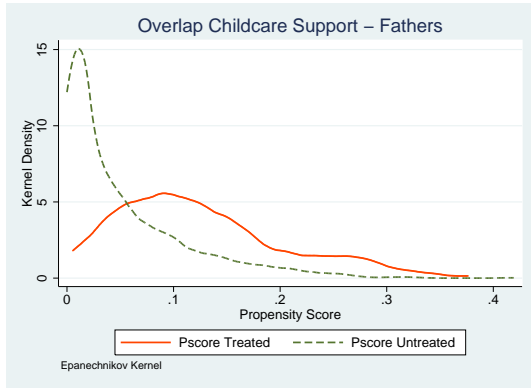
Table D2: Effects of *Flex Schedule* incl. Always-Treated - Mothers

	Well-Being				Δ Time Pressure	Δ Time Job	Working Time	
	Δ Satisfaction with...						Δ Agreed Hours	Δ Actual Hours
	Life	Job	Family	Care				
<i>DiD plus Matching plus Changes</i>								
Δ Flex Schedule	-0.03 (0.14)	0.40** (0.19)	-0.13 (0.11)	0.03 (0.22)	0.22** (0.09)	-0.10 (0.17)	-0.59 (0.55)	-0.17 (0.59)
Observations	959	931	959	786	959	907	958	951
<i>LDV plus Matching plus Changes</i>								
Δ Flex Schedule	-0.08 (0.11)	0.39** (0.15)	-0.19** (0.09)	-0.04 (0.20)	0.13** (0.06)	-0.08 (0.16)	-0.44 (0.50)	-0.07 (0.54)
Observations	959	931	959	786	958	907	958	951

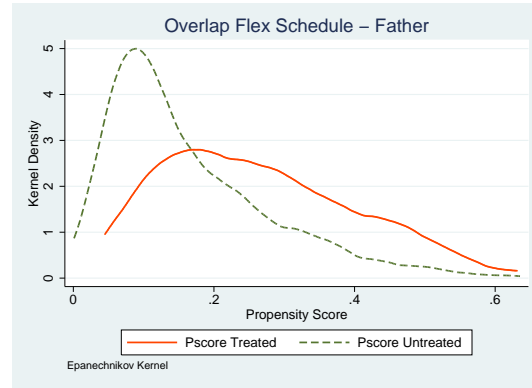
Note: Standard errors in parentheses are clustered at the individual level. */ **/ ***: Significance at the 10-/5-/1-percent level. All models include year-fixed effects. *Matching:* Matching on and regression adjustment for X^M (see Table B1). *Changes:* Regression adjustment for ΔX (see Section 4.3).

Source: FiDv4.0.

E Balancing

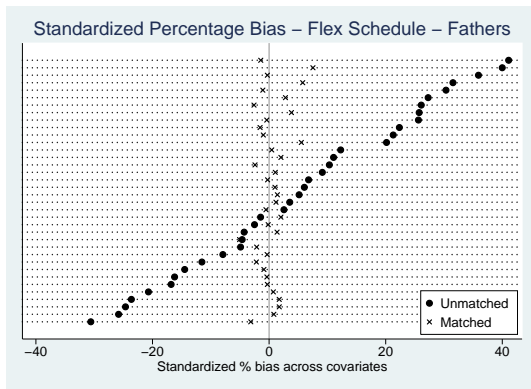


(a) Overlap *Childcare Support*

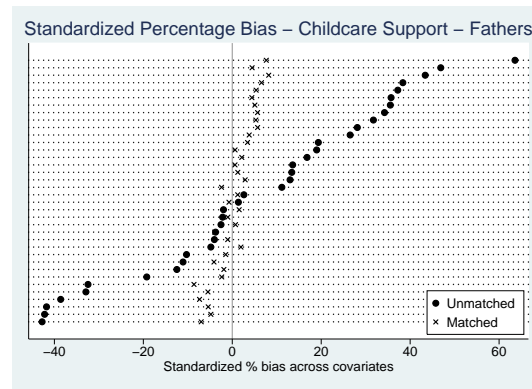


(b) Overlap *Flex Schedule*

Figure E1: Overlap of Propensity Scores for Treated and Non-Treated -Fathers



(a) Balancing *Childcare Support*



(b) Balancing *Flex Schedule*

Figure E2: Standardized Percentage Bias before and after Matching - Fathers

Table E1: Balancing for *Childcare Support* - Mothers

	Unweighted Mean		Difference		% Std. Bias
	Treated	Control	Raw	Matched	
Family Characteristics					
Age Youngest Child	4.3	4.2	0.14	0.01	0.6
Youngest Child < Age 3	0.1	0.1	-0.07*	0.01	2.1
No School Aged Child	0.9	0.9	0.05	0.00	-0.8
2 Children	0.5	0.5	0.01	-0.01	-2.0
3-4 Children	0.2	0.3	-0.09	-0.01	-2.7
Household Income (p)	3.9	3.4	0.42**	-0.04	-2.6
Mother's Characteristics					
Own Age	37.4	37.0	0.38	-0.11	-2.2
Family Attitude	0.3	0.4	-0.09	0.00	-0.7
Low Education (p)	0.0	0.1	-0.06*	-0.01	-4.4
High Vocational (p)	0.1	0.0	0.02	0.00	-1.7
High Education (p)	0.4	0.3	0.13**	0.02	3.3
High Job Position (p)	0.3	0.2	0.08	-0.01	-2.0
Hourly Wage (p)	12.3	10.9	1.36*	0.11	1.5
Tenure (p)	7.5	5.7	1.87**	-0.21	-3.2
Unempl. Exp. (p)	2.5	3.4	-0.87	0.08	1.1
Full-Time Exp. (p)	6.3	5.9	0.37	-0.01	-0.3
Partner's Characteristics					
Partner's Age	40.9	40.1	0.84	0.18	3.0
Partner's Family Attitude	0.7	0.6	0.05	0.01	1.7
Partner's High Education (p)	0.3	0.3	0.01	-0.01	-3.0
Partner's High Position (p)	0.4	0.3	0.09	0.01	2.1
Partner's Unempl. Exp. (p)	3.6	4.1	-0.56	-0.19	-1.2
Partner not working (p)	0.0	0.0	-0.02	0.00	-2.7
Workplace Characteristics					
Large Firm	0.6	0.5	0.18***	0.03	5.3
Small Firm	0.2	0.4	-0.12**	-0.01	-2.6
Family-Friendly (p)	0.4	0.2	0.18***	0.03	6.9
Civil Service	0.4	0.2	0.19***	0.01	1.4
Manager	0.0	0.0	0.01	0.00	2.2
Professionals	0.3	0.2	0.13***	0.01	2.9
Technicians & Assoc. Professionals	0.4	0.3	0.06	0.00	-1.0
Service & Sales Worker	0.1	0.2	-0.14***	-0.02	-5.7
Craft & Trades Worker	0.0	0.0	-0.02	0.00	.
Plan & Machine Operator	0.0	0.0	-0.01	0.00	.
Elementary Occupations	0.0	0.1	-0.09**	0.00	.
Regional Characteristics					
West Germany	0.7	0.8	-0.08	0.01	3.1
Small City/Rural	0.1	0.2	-0.05	-0.02	-4.7
Years Change-Period	1.2	1.2	0.07	0.01	2.1
Observations ^c	71	922			
	71	810			
Mean Bias (raw,matched)			19.6	2.3	

Notes: Columns 1 and 2 display the mean values in the treated and non-treated group in the unmatched sample. Column 3 reports the difference between these two group-specific means and column 4 displays the corresponding difference in means in the matched sample. In column 5 the standardized percentage biased for the matched sample is displayed. Significance levels for the t-test in column 3 and 4 are reported as: */**/*: Significance at the 10-/5-/1-percent level.

^a Values in parentheses remain after matching and on support.

Source: FiDv4.0.

Table E2: Balancing for *Flex Schedule* - Mothers

	Unweighted Mean		Difference		% Std. Bias
	Treated	Control	Raw	Matched	
Family Characteristics					
Age Youngest Child	4.3	4.0	0.31*	0.10	6.3
Youngest Child < Age 3	0.1	0.2	-0.07**	-0.01	-2.6
No School Aged Child	0.9	0.9	-0.04	-0.01	-4.2
2 Children	0.5	0.5	0.00	-0.03	-5.2
3-4 Children	0.3	0.3	0.00	0.01	2.0
Household Income (p)	3.4	3.2	0.27**	0.03	2.3
Mother's Characteristics					
Own Age	37.6	36.1	1.51***	0.01	0.1
Family Attitude	0.4	0.4	-0.07	-0.04	-7.4
Low Education (p)	0.0	0.1	-0.08***	0.00	-0.2
High Vocational (p)	0.1	0.0	0.03	-0.01	-3.4
High Education (p)	0.2	0.2	0.02	0.02	4.3
High Job Position (p)	0.2	0.2	0.01	0.00	0.9
Hourly Wage (p)	10.8	9.9	0.91	0.17	2.8
Tenure (p)	6.7	4.4	2.25***	-0.21	-3.7
Unempl. Exp. (p)	2.8	3.8	-0.94	-0.11	-1.2
Full-Time Exp. (p)	6.2	5.4	0.81*	-0.04	-0.9
Partner's Characteristics					
Partner's Age	41.0	39.1	1.84***	0.29	4.8
Partner's Family Attitude	0.7	0.6	0.07	-0.01	-2.1
Partner's High Education (p)	0.3	0.2	0.11**	0.00	1.1
Partner's High Position (p)	0.3	0.2	0.11**	0.00	-1.1
Partner's Unempl. Exp. (p)	4.8	4.5	0.34	-0.39	-2.4
Partner not working (p)	0.0	0.0	-0.01	0.00	1.1
Workplace Characteristics					
Large Firm	0.5	0.4	0.18***	0.00	0.6
Small Firm	0.3	0.4	-0.13***	-0.01	-2.9
Family-Friendly (p)	0.1	0.1	0.04	-0.01	-3.7
Civil Service	0.3	0.2	0.00	0.01	1.5
Manager	0.0	0.0	0.03*	0.01	5.2
Professionals	0.2	0.2	0.00	0.00	0.5
Technicians & Assoc. Professionals	0.3	0.3	0.04	-0.02	-5.3
Service & Sales Worker	0.2	0.2	-0.04	0.02	3.7
Craft & Trades Worker	0.0	0.0	0.01	0.01	3.1
Plan & Machine Operator	0.0	0.0	-0.01	0.00	0.1
Elementary Occupations	0.1	0.2	-0.10***	-0.01	-1.7
Regional Characteristics					
Small City/Rural	0.2	0.2	0.01	0.01	3.3
West Germany	0.8	0.8	0.00	-0.01	-2.7
Years Change-Period	1.2	1.2	0.00	0.00	-0.8
Observations ^a	131 (127)	339 (339)			
Mean Bias (raw,matched)			14.5	2.6	

Notes: Columns 1 and 2 display the mean values in the treated and non-treated group in the unmatched sample. Column 3 reports the difference between these two group-specific means and column 4 displays the corresponding difference in means in the matched sample. In column 5 the standardized percentage biased for the matched sample is displayed. Significance levels for the t-test in column 3 and 4 are reported as: */**/*: Significance at the 10-/5-/1-percent level.

^a Values in parentheses remain after matching and on support.

Source: FiDv4.0.

Table E3: Balancing for *Childcare Support* - Fathers

	Unweighted Mean		Difference		% Std.
	Treated	Control	Raw	Matched	Bias
Family Characteristics					
Age Youngest Child	3.7	3.7	-0.02	0.01	0.7
Youngest Child < Age 3	0.3	0.3	0.04	-0.01	-2.4
No School Aged Child	0.9	0.9	0.01	0.00	1.2
2 Children	0.4	0.5	0.00	0.01	1.6
3-4 Children	0.3	0.3	-0.03	0.00	-1.0
Household Income (p)	3.6	3.1	0.46***	0.08	5.4
Father's Characteristics					
Own Age	39.6	38.8	0.75	0.07	1.2
Family Attitude	0.7	0.6	0.07	0.00	0.6
Low Education (p)	0.0	0.1	-0.08**	-0.02	-8.6
High Vocational (p)	0.2	0.1	0.10***	0.02	5.3
High Education (p)	0.4	0.2	0.17***	0.03	6.6
Household Inc. (p)	3.6	3.1	0.46***	0.08	5.4
High Job Position (p)	0.5	0.3	0.22***	0.02	4.5
Hourly Wage (p)	15.9	13.3	2.65***	0.31	4.4
Tenure (p)	9.3	8.1	1.26*	0.15	2.1
Unempl. Exp. (p)	2.1	3.5	-1.45	-0.18	-2.4
Full-Time Exp. (p)	12.2	12.9	-0.68	-0.27	-4.1
Partner's Characteristics					
Partner's Age	37.5	36.0	1.47**	0.30	5.7
Partner's Family Attitude	0.4	0.5	-0.05	-0.01	-1.5
Partner's High Education (p)	0.3	0.2	0.07*	0.00	0.6
Partner's High Position (p)	0.1	0.1	0.06**	0.01	3.4
Partner's Unempl. Exp. (p)	0.9	5.0	-4.16***	-0.80	-7.4
Partner not working (p)	0.3	0.5	-0.17***	-0.03	-5.5
Workplace Characteristics					
Large Firm	0.9	0.6	0.26***	0.03	7.7
Small Firm	0.1	0.2	-0.14***	-0.02	-4.8
Family-Friendly (p)	0.3	0.2	0.14***	0.02	5.7
Civil Service	0.3	0.1	0.18***	0.03	8.2
Manager	0.1	0.1	0.00	0.00	-0.7
Professionals	0.3	0.2	0.15***	0.02	5.1
Technicians & Assoc. Professionals	0.3	0.2	0.11***	0.02	3.8
Service & Sales Worker	0.0	0.1	-0.01	0.00	1.9
Craft & Trades Worker	0.1	0.2	-0.15***	-0.02	-5.4
Plan & Machine Operator	0.0	0.1	-0.11***	-0.02	-7.0
Elementary Occupations	0.1	0.1	0.00	0.00	-1.0
Regional Characteristics					
Small City/Rural	0.1	0.2	-0.04	-0.01	-1.9
West Germany	0.9	0.8	0.04	0.01	2.9
Years Change-Period	1.3	1.3	-0.01	-0.02	-4.0
Observations ^a	90	1,565			
	(90)	(1,565)			
Mean Bias (raw,matched)			23.2	3.8	

Notes: Columns 1 and 2 display the mean values in the treated and non-treated group in the unmatched sample. Column 3 reports the difference between these two group-specific means and column 4 displays the corresponding difference in means in the matched sample. In column 5 the standardized percentage biased for the matched sample is displayed. Significance levels for the t-test in column 3 and 4 are reported as: */ **/ ***: Significance at the 10-/5-/1-percent level.

^a Values in parentheses remain after matching and on support.

Source: FiDv4.0.

Table E4: Balancing for *Flex Schedule* - Fathers

	Unweighted Mean		Difference		% Std. Bias
	Treated	Control	Raw	Matched	
Family Characteristics					
Age Youngest Child	3.6	3.7	-0.14	-0.01	-0.3
Youngest Child < Age 3	0.3	0.3	0.02	0.01	1.4
No School Aged Child	0.9	0.9	0.01	0.00	-0.5
2 Children	0.5	0.5	0.03	0.01	1.0
3-4 Children	0.3	0.3	-0.02	0.01	1.4
Household Income (p)	3.2	2.8	0.41***	0.00	-0.3
Father's Characteristics					
Own Age	39.5	38.3	1.19**	0.33	5.5
Family Attitude	0.6	0.6	-0.02	-0.02	-5.1
Low Education (p)	0.1	0.2	-0.08***	0.00	0.8
High Vocational (p)	0.1	0.0	0.06***	0.00	-1.5
High Education (p)	0.2	0.1	0.12***	0.02	5.8
High Job Position (p)	0.4	0.2	0.17***	0.03	7.5
Hourly Wage (p)	13.4	11.5	1.86***	-0.07	-1.1
Tenure (p)	8.3	7.4	0.82	0.03	0.4
Unempl. Exp. (p)	3.4	4.8	-1.45*	-0.03	-0.4
Full-Time Exp. (p)	13.1	13.2	-0.09	0.14	2.0
Partner's Characteristics					
Partner's Age	36.3	35.7	0.60	0.11	2.0
Partner's Family Attitude	0.4	0.5	-0.07*	0.00	-0.9
Partner's High Education (p)	0.2	0.1	0.11***	0.01	2.8
Partner's High Position (p)	0.1	0.0	0.02	-0.01	-2.4
Partner's Unempl. Exp. (p)	3.0	6.4	-3.44**	0.24	1.7
Partner not working (p)	0.4	0.5	-0.08**	0.00	-0.3
Workplace Characteristics					
Large Firm	0.7	0.5	0.20***	-0.01	-1.4
Small Firm	0.2	0.3	-0.10***	0.01	1.7
Family-Friendly (p)	0.1	0.1	0.08***	-0.01	-2.6
Civil Service	0.2	0.1	0.07***	0.00	-1.0
Manager	0.1	0.0	0.02	0.00	1.1
Professionals	0.2	0.1	0.09***	0.01	3.8
Technicians & Assoc. Professionals	0.2	0.1	0.10***	0.00	-0.4
Service & Sales Worker	0.0	0.1	-0.03	-0.01	-2.2
Craft & Trades Worker	0.2	0.3	-0.13***	-0.01	-3.1
Plan & Machine Operator	0.1	0.2	-0.07**	0.00	0.7
Elementary Occupations	0.1	0.1	-0.01	0.00	-0.2
Regional Characteristics					
Small City/Rural	0.2	0.2	0.03	0.00	-0.3
West Germany	0.9	0.9	0.01	0.00	1.2
Years Change-Period	1.3	1.4	-0.02	-0.01	-2.1
Observations ^a	174 (174)	778 (778)			
Mean Bias (raw,matched)			17.3	1.9	

Notes: Columns 1 and 2 display the mean values in the treated and non-treated group in the unmatched sample. Column 3 reports the difference between these two group-specific means and column 4 displays the corresponding difference in means in the matched sample. In column 5 the standardized percentage biased for the matched sample is displayed. Significance levels for the t-test in column 3 and 4 are reported as: */**/*: Significance at the 10-/5-/1-percent level.

^a Values in parentheses remain after matching and on support.

Source: FiDv4.0.

F Pre-Treatment Outcomes

Table F1: Pre-treatment Outcomes - *Childcare Support*

	Treated	Mothers Control	Diff	Treated	Fathers Control	Diff
<i>Life</i> (pre)	7.9	8.0	-0.06	7.9	7.8	0.15
<i>Work</i> (pre)	7.9	7.6	0.35	7.4	7.5	-0.00
<i>Family</i> (pre)	8.6	8.7	-0.05	8.9	8.8	0.04
<i>Care</i> (pre)	7.5	7.8	-0.38	7.3	7.6	-0.27
<i>Stress</i> (pre)	3.5	3.5	0.02	3.3	3.2	0.12
Time Job (pre)	5.8	5.0	0.73**	9.8	9.5	0.22
Agreed Hours (pre)	23.4	20.6	2.83**	39.8	39.0	0.76
Actual Hours (pre)	26.0	22.7	3.29**	45.8	44.0	1.80*

Source: FiDv4.0.

Table F2: Pre-treatment Outcomes - *Flex Schedule*

	Treated	Mothers Control	Diff	Treated	Fathers Control	Diff
<i>Life</i> (pre)	7.8	7.7	0.04	7.9	7.6	0.20*
<i>Work</i> (pre)	7.5	7.5	-0.02	7.2	7.3	-0.10
<i>Family</i> (pre)	8.5	8.7	-0.21	8.9	8.8	0.10
<i>Care</i> (pre)	7.8	7.8	0.02	7.6	7.7	-0.10
<i>Stress</i> (pre)	3.3	3.4	-0.12	3.2	3.2	-0.02
Time Job (pre)	5.0	5.0	-0.00	9.6	9.6	-0.02
Agreed Hours (pre)	20.7	20.4	0.27	39.2	39.7	-0.48
Actual Hours (pre)	22.5	22.4	0.09	44.8	44.4	0.43

Source: FiDv4.0.

G Treatment Effects for Fathers

Table G1: Effects of *Childcare Support* - Fathers

	Well-Being				Δ Time Pressure	Δ Time Job	Working Time	
	Δ Satisfaction with... Life	Job	Family	Care			Δ Agreed Hours	Δ Actual Hours
<i>DiD</i>								
Δ Childcare Support	-0.01 (0.14)	0.37* (0.19)	-0.06 (0.12)	-0.08 (0.27)	-0.04 (0.12)	-0.02 (0.15)	-0.57 (0.53)	-0.19 (0.76)
Observations	1655	1649	1654	1269	1654	1642	1653	1635
<i>LDV</i>								
Δ Childcare Support	0.08 (0.12)	0.41*** (0.15)	-0.04 (0.11)	-0.14 (0.21)	0.03 (0.10)	0.07 (0.13)	-0.19 (0.46)	0.50 (0.67)
Observations	1655	1649	1654	1269	1654	1642	1653	1635
<i>DiD plus Matching plus Changes</i>								
Δ Childcare Support	-0.20 (0.15)	0.08 (0.17)	-0.09 (0.11)	-0.13 (0.28)	-0.02 (0.11)	-0.00 (0.14)	-0.74* (0.44)	-0.49 (0.66)
Observations	1655	1649	1654	124	1654	1642	1653	1635
<i>LDV plus Matching plus Changes</i>								
Δ Childcare Support	-0.13 (0.11)	0.04 (0.14)	-0.07 (0.10)	-0.05 (0.20)	0.06 (0.10)	0.14 (0.13)	-0.02 (0.37)	0.43 (0.61)
Observations	1655	1649	1654	124	1654	1642	1653	1635

Note: Standard errors in parentheses are clustered at the individual level. */**/*: Significance at the 10-/5-/1-percent level. All models include year-fixed effects. *Matching:* Matching on and regression adjustment for X^M (see Table B1). *Changes:* Regression adjustment for ΔX (see Section 4.3). The number of observations vary, because after matching not all observations are in the support.

Source: FiDv4.0.

Table G2: Effects of *Flex Schedule* - Fathers

	Well-Being				Working Time			
	<i>Life</i>	Δ Satisfaction with...		<i>Care</i>	Δ Time Pressure	Δ Time Job	Δ Agreed Hours	Δ Actual Hours
<i>DiD</i>								
Δ Flex Schedule	0.05 (0.10)	0.16 (0.17)	-0.19 (0.13)	-0.14 (0.20)	0.05 (0.09)	-0.11 (0.13)	-0.09 (0.40)	-1.45*** (0.55)
Observations	952	945	952	731	951	942	951	937
<i>LDV</i>								
Δ Flex Schedule	0.16* (0.09)	0.12 (0.14)	-0.13 (0.11)	-0.17 (0.16)	0.04 (0.07)	-0.12 (0.13)	-0.37 (0.38)	-1.23** (0.51)
Observations	952	945	952	731	951	942	951	937
<i>DiD plus Matching plus Changes</i>								
Δ Flex Schedule	-0.06 (0.10)	0.04 (0.20)	-0.31** (0.14)	-0.12 (0.23)	0.03 (0.10)	-0.24* (0.13)	0.07 (0.35)	-1.30** (0.52)
Observations	952	944	952	731	951	941	951	937
<i>LDV plus Matching plus Changes</i>								
Δ Flex Schedule	-0.03 (0.09)	-0.03 (0.16)	-0.23** (0.12)	-0.12 (0.17)	0.02 (0.08)	-0.25** (0.12)	-0.35 (0.33)	-1.27*** (0.48)
Observations	952	944	952	731	951	941	951	937

Note: Standard errors in parentheses are clustered at the individual level. */ **/ ***: Significance at the 10-/5-/1-percent level. All models include year-fixed effects. *Matching:* Matching on and regression adjustment for X^M (see Table B1). *Changes:* Regression adjustment for ΔX (see Section 4.3). The number of observations vary, because after matching not all observations are in the support.

Source: FiDv4.0.