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How Job Changes Affect People's Lives - Evidence from Subjective Well-being Data

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Abstract

For representative German panel data, we show that voluntary job switching leads to relatively high levels of life satisfaction, though only for some time, whereas the impact of exogenously triggered job changes is ambiguous. Risk aversion interacts negatively with this effect in life satisfaction. Analysing time-use data and well-being indicators for various areas of life, we find evidence that involuntary job mobility turns out to be harmful for satisfaction with family life. By linking this relatively new measure of family well-being to domestic events, such as future child births, our paper reveals a behaviourally valid predictor of great economic relevance.

JEL-Codes: I310, J280, J610, J630.

Keywords: life satisfaction, satisfaction with family life, job changes, honeymoon-hangover effect, employment protection legislation.

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1. Introduction

Employment enables people to make a living out of their own efforts. It ensures sense and purpose in life, which result in individual well-being gains from complying with the social norm to work and with one's ideal self (Stutzer and Lalive 2004, Hetschko et al. 2014). In turn, both unemployment and the fear of it reduce life satisfaction dramatically (e.g. Clark and Oswald 1994, Lüchinger et al. 2010, Knabe and Rätzl 2010, 2011, Green 2011, Clark et al. 2008). These merits, however, do not mean that employment is a homogenous and impeccable source of well-being. People's life satisfaction depends on the circumstances of a job, such as part-time versus fulltime employment (Booth and van Ours 2008, 2009, 2013, Berger 2013) or self-employment (Binder and Coad 2013, Hetschko forthcoming). Working and also commuting can be counted among the most unpleasant activities (Gimenez-Nadal and Molina 2015), which explains why, over the course of the day, emotional well-being of the employed is not higher than that of the unemployed (Knabe et al. 2010). The notion of a relevant opportunity cost associated with being employed seems to be in line with the observation that working can reduce the well-being obtained from other areas of life, simply because it is time-consuming (Wooden et al. 2009, Rätzl 2012, Wunder and Heineck 2013). This may in particular concern employees who have recently switched jobs, as they need to convince their new employers that they are highly productive. In order to overcome the harm associated with insecurity at the beginning of a new job, employees may be extraordinarily engaged in work-related activities, presumably at the cost of family life, leisure time or other activities at home. While researchers are increasingly using subjective well-being data to inspect the potential trade-offs between family and career (e.g. Bertrand 2013), the consequences of job changes on life satisfaction have not been analysed so far. Our first comprehensive investigation aims at filling this gap.

Theoretically, workers who switch employers voluntarily and firms displacing workers bring the labour market to its equilibrium. In reality, labour markets never reach an equilibrium and mobility always persists. Hence, the welfare implications of labour mobility are of special interest in economics and present various policy issues. For an individual, changes of employer become more likely the more flexible the labour market (e.g. Bertola 1990, Hopenhayn and Rogerson 1993, Kugler and Pica 2008, Kan and Lin 2011). Besides other factors, the welfare consequences of mobility thus need to be taken into account when weighting the costs and benefits of employment protection legislation. Studies that focus on the job satisfaction effects of job changes provide some insights in this respect. Based on data about US managers, Boswell et al. (2005) characterise work-related well-being after having switched employers as a

honeymoon-hangover pattern. Job satisfaction is substantially higher in the new job than before, but reduces substantially after some time.¹ In the first comprehensive analysis of job satisfaction in representative data, Chadi and Hetschko (2014) clarify that the positive impact of changing jobs depends crucially on the trigger of mobility. Only voluntary changes lead to the honeymoon-hangover pattern of initially outstanding levels of job satisfaction. We continue this research by applying life satisfaction as a global measure of individual welfare, which allows us to consider aspects of life other than the job in order to provide a more comprehensive picture of potential implications from labour market flexibility.² To find out how job switching affects welfare received from non-work activities, we also investigate the effect of job changes on satisfaction with their family life, their housing and their free time.³

Our empirical analysis distinguishes between job switches following resignations (voluntary) and job switches triggered by plant closures (involuntary). It is obvious that voluntarily conducted job mobility constitutes a selection of positive cases, which means that the effects observed in the data do not necessarily reflect a causal effect of the event itself. Instead, the estimated effects of changes after resignations on life satisfaction can originate from both the reasons motivating the switch (e.g. the wish to do new and more interesting tasks) as well as the actual event of switching (e.g. simply because of the variation of tasks). Involuntarily triggered switching resulting from the exogenous happenstance of a plant closure, however, can only have the latter implication. It hence allows us to search for genuine well-being effects of changing employers, as we exclude a positive bias due to a special motivation for a voluntary job change and other unobserved factors. An individual fixed-effects estimation approach as well as a robustness check based on matching techniques help us to interpret our empirical findings as causal evidence.

The distinction between voluntary and involuntary mobility is also crucial from a behavioural economics point of view. A rise in life satisfaction in response to voluntary switching can be easily reconciled with the rationality of choices assumption. In contrast, a

¹ A similar pattern appears in several empirical studies with different research focus (e.g. Georgellis and Tabvuma 2010, Johnston and Lee 2012, 2013, Gielen 2013, Chadi and Hetschko 2016).

² See e.g. Dolan et al. (2008), Frey (2008) and Weimann et al. (2015) for surveys of the work in this field. The idea of using life satisfaction data as a proxy for people's overall utility levels constitutes the basis for numerous economic contributions (e.g. Luttmer 2005, Bruhin and Winkelmann 2009, Schwarze and Winkelmann 2011, Levinson 2012, Finkelstein et al. 2013).

³ Apart from the large body of research using life satisfaction and job satisfaction data, some studies provide evidence on a set of various life domains (e.g. van Praag et al. 2003, Powdthavee 2011), whereas other researchers specifically look at certain areas of life. See e.g. Ford et al. (2007) as well as Elmslie and Tebaldi (2014) for satisfaction with family life, Diaz-Serrano (2009) for housing satisfaction as well as Gimenez-Nadal and Sevilla-Sanz (2011) for free time satisfaction.

finding that unintended changes of employer improve overall well-being would raise a demand for theoretical clarification as to why people need to be forced to make a change that is beneficial for them. In our context, this could justify labour market flexibilisation as a policy tool. As we discuss more deeply in our paper, risk aversion could be one explanation for such a result within a framework of rational choices. Another explanation as to why people decide not to switch jobs, despite potential welfare improvements, might be inertia caused by status quo bias, which would not necessarily be in line with the assumption of rational choices.

Based on representative German panel data, we find that the honeymoon-hangover pattern of voluntary job changes known from the job satisfaction studies mentioned above shows up in life satisfaction as well, although to a much smaller extent. Exogenously triggered job changes do not affect life satisfaction generally, neither for the worse nor for the better. However, as we argue in our theoretical discussion, there is reason to suspect that the impact on subjective well-being depends on someone's risk attitude, which we can also confirm with our data. We also discuss a potential substitution in daily time-use between working and non-work-related activities. In line with this argument, we find that involuntary job switching substantially reduces satisfaction with family life, whereas the analyses of housing satisfaction and satisfaction with free time do not yield clear findings. We conclude that individuals manage to arrange their personal lives with their working lives quite well in the case of voluntary job changing, but, in case of forced job mobility, we see a potential threat to subjective well-being in one particular area of life. As satisfaction with family life is not commonly used in research so far, we conclude our investigation by examining its behavioural validity. It turns out that satisfaction with family life is a reliable predictor of future domestic events, such as child births, and thus constitutes an economically relevant indicator for individual behaviour in this area of life. With our contribution, we may add to a new literature that studies economic research questions related to work-life imbalances and similar issues using family well-being measures.

We proceed as follows. Section 2 outlines our theoretical expectations for the empirical analysis. Data and sampling are documented in Section 3. A mean analysis (Section 4) allows us to draw preliminary conclusions about life satisfaction as an outcome of changing employers, and we document how working time varies with starting a new job. Section 5 explains the methodology we use to identify the effects of switching and presents the corresponding estimation results for various satisfaction outcomes. Section 6 provides a discussion of our findings in which we present evidence of the relevance of family dissatisfaction for population economic outcomes. Section 7 concludes and offers policy implications.

2. Theoretical expectations

2.1 Involuntary mobility

In the following, we develop expectations about the empirical consequences of job changes for different dimensions of subjective well-being. At the beginning, we focus on involuntary switching (triggered exogenously). We assume that after having switched employers, workers want to establish themselves in order to achieve future employment stability and promotions.⁴ In consequence, they try to signal high productivity at the beginning of a new employment relationship, using working hours as one potential signalling device (e.g. Bell and Freeman 2001, Engellandt and Riphahn 2005).⁵ We use a very simple framework to describe this supposition and its possible consequences for the impact of exogenously triggered switching on different dimensions of well-being. The representative worker invests a fixed time budget T in working activities (h hours) and in non-working activities (n hours), such as in leisure activities and home production. The goal is to maximise total utility $U = u_1(h) + u_2(n)$, with $u_1', u_2' > 0$ and $u_1'', u_2'' < 0$. The worker chooses h with the result that the marginal utility of time spent in non-working activities equals the marginal utility of working time:

$$u_2'(n) = u_1'(h) \quad (1)$$

Following the argument that employment stability or promotions play an important role for utility, we extend the utility function by z , representing the contemporaneous utility derived from future employment prospects. In order to illustrate a relative difference in the nature of z between the old and the new job, we assume that z is exogenous from the worker's point of view. Promotions have taken place or not and employment stability depends only on the exogenous risk of firm failure: $U_{old} = u_1(h_{old}) + u_2(n_{old}) + z_{exo}$. When having switched to another job, workers can contribute to future employment prospects. To keep it simple, we assume that the new and the old job are completely equal in other respects (h affects u_1 and u_2 in the same way), which yields $U_{new} = u_1(h_{new}) + u_2(n_{new}) + z(h_{new})$, with $z' > 0$.

⁴ Employment protection legislation may contribute to such behaviour as well. New workers need to survive probation whereas dismissal protection preserves enduring employment relationships. Ichino and Riphahn (2005) present evidence in support of this notion by showing that absenteeism is relatively low during probation.

⁵ The economic literature considers absence rates as another productivity signal (see e.g. Ichino and Maggi 2000, Flabbi and Ichino 2001, Audas et al. 2004, Hesselius et al. 2009, Chadi and Goerke 2015).

While working time is chosen in the same way as illustrated in (1) before switching

$$u_2'(n_{old}) = u_1'(h_{old}) , \quad (2)$$

it fulfills

$$u_2'(n_{new}) = u_1'(h_{new}) + z'(h_{new}) \quad (3)$$

afterwards. Switching increases the marginal utility of hours spent in non-working activities, which means that n has decreased and h has risen.

Beyond changes in time use, these considerations yield the following suppositions for our empirical well-being study. The utility effect of involuntarily triggered switching ($U_{new} - U_{old}$) is zero or negative. Otherwise, the job change would not take place *involuntarily*, assuming that individuals behave rational and make risk-neutral decisions. Regarding u_2 , our simple framework suggests a negative change caused by job mobility. We test this hypothesis using satisfaction with free time, satisfaction with family life and housing satisfaction as indicators for changes in utility derived from non-working activities.

Risk aversion is likely to play a key role in the context of uncertain benefits or drawbacks from starting a new job. One plausible idea is that rational, but risk averse individuals may not switch jobs when U_{new} is uncertain, although the *expected* U_{new} is higher than U_{old} . In this case, people may on average benefit from being forced to switch jobs. An alternative argument is that risk-averse workers might suffer strongly from switching, because they dislike uncertainty about future employment stability and promotions at the beginning of a new employment relationship. Hence, the role of risk aversion in the context of job switching remains an empirical question of great interest for our study.

2.2 Voluntary mobility

Concerning voluntary job changes, we suppose that life satisfaction reflects the honeymoon-hangover pattern (Boswell et al. 2005, 2009) found in the literature for job satisfaction as well. From a theoretical point of view, rational workers will only change employers voluntarily if they can improve their individual welfare, which is measured using life satisfaction in this study. As job satisfaction does not completely translate into life satisfaction (see e.g. van Praag et al. 2003), we suppose that the honeymoon-hangover pattern is less strong in life satisfaction than it has been found for representative job satisfaction data (Chadi and Hetschko 2014).

Regarding satisfaction with specific areas of life, one could expect that the honeymoon experience of a voluntarily chosen new job appears beneficial as well. If workers become

happier during the transition, they will also tend to report higher levels of each relevant life domain satisfaction. Moreover, workers could switch *in order to* become more satisfied with such a specific area of life, for instance, when they aim at reducing work-family conflicts. However, we have argued above that involuntary job changes likely yield adverse effects on specific life domains, which might apply to voluntary changes as well. In sum, we start from the premise that the progression of satisfaction with family life or free time as well as housing satisfaction around voluntary job changes is a priori unclear.

3. Data

We make use of data of the German Socio-Economic Panel Study (SOEP), which is an ongoing survey of households and individuals that comprises 30 yearly waves from 1984 to 2013 (Wagner et al. 2007, SOEP 2015). SOEP data are especially well-suited for our research purpose, given a huge variety of information on subjective well-being and employment. The panel structure enables us to follow the same workers from one job to another. We identify the triggers of job changes by a question on the reasons why the initial employment relationship terminated: *How was this job terminated?*. To distinguish between terminations that are either voluntary or involuntary from the employee's point of view, we analyse the two answering possibilities *my resignation* and *because place of work or office has closed* (in the following *plant closure*). As employment protection is comparatively high in Germany, it is rather difficult for firms to dismiss workers. In consequence, individual dismissals constitute fairly special cases, such as dismissals resulting from serious illnesses, severe misconduct or fraud, and are not considered in the following analyses. Plant closures, in contrast, cause workers to lose their jobs irrespective of personal characteristics and intentions.

Based on the SOEP waves from 1994 to 1998 and from 2001 to 2013, information about recent resignations and plant closures are combined with precisely generated data on recent employer changes since the preceding SOEP interview. When analysing respondents' subjective well-being before and after the transition from one job to another, our analyses also include information on the waves of 1992, 1993, 1999 and 2000. We only make use of data of employed individuals that are at least 18 years old and younger than 60 years of age and work at least 15 hours per week. Job changes only consist of switches between companies.

Concerning subjective well-being, we investigate workers' overall life satisfaction as well as satisfactions with family life, free time, housing, and job. They are ascertained separately by single-item questions in the following way:

How satisfied are you with your life, all things considered / your family life / your free time / your place of dwelling / your job? Please answer by using the following scale: 0 means "completely dissatisfied", 10 means "completely satisfied".

The SOEP provides us with a variety of further data that we consider as controls in our regression analyses. Beyond standard socio-demographic information, the available personal background characteristics include data on people's employment biography and the German federal state respondents live in. We also account for household characteristics (housing space, home ownership, number of household members, relocation), workers' family lives (marital status, relationship status, partners' employment status, number of children, people in need of care) and objective health status (disability, overnight stays in hospital). In addition, use is made of data on many job characteristics (sectors, autonomy in carrying out tasks, company size, white collar / blue collar / public servant), workers' labour earnings and overall equalised incomes (using the new OECD scale, at 2006 prices). Finally, the SOEP's information on workers' self-assessed willingness to take risks (on a scale from 0 to 10) is employed in the course of our analyses.⁶ The Appendix includes a detailed description of our data (Table A1), distinguishing between three groups of workers: those who did not change jobs recently, those who changed recently after resigning and those who changed recently because of a plant closure.

4. Well-being and time use around job changes

4.1 Life and job satisfaction

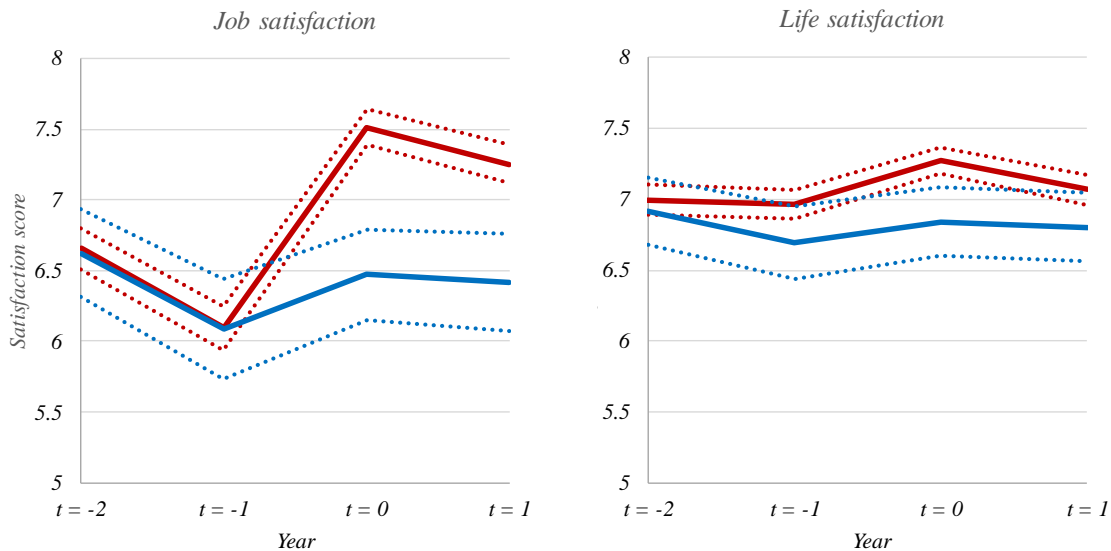
To provide first insights into well-being patterns around employer changes, we compare the mean satisfaction scores of switches after resignations and switches after plant closures in Figure 1. Satisfaction scores are drawn for four SOEP interviews around job changes, resulting in four points in time $t = -2, -1, 0, 1$. Employees change employers between $t = -1$ and $t = 0$. The period between two points in time is approximately one year. Comparing the satisfaction score of $t = 0$ to that of $t = -2$ is a way to gain insights into the potential impact of switching

⁶ Analyses conducted by Dohmen et al. (2011) show that this measure approximates risk attitude in a behaviourally valid way.

on well-being without having much interference by unobserved factors determining people's (working) lives at the end of their tenure.

The two diagrams indicate for voluntary job changes that the honeymoon-hangover pattern shows up in both job satisfaction and life satisfaction, although it is much less pronounced for the latter outcome. In $t = 0$, both satisfaction scores of voluntary mobility exceed the level of $t = -2$. Job satisfaction rises by 0.86 points ($p < 0.01$), while the life satisfaction increase amounts to 0.28 points ($p < 0.01$). This effect, however, is not long lasting. Both trajectories are describing a hangover pattern as satisfaction scores decrease significantly from $t = 0$ to $t = 1$. Only in the case of job satisfaction is the score still significantly higher in $t = 1$ compared to $t = -2$. When the employer change is triggered by plant closure, however, neither job satisfaction nor life satisfaction change substantially. According to this first piece of evidence, switching itself seems to have no direct impact on life satisfaction. This finding is in line with the conclusion of Chadi and Hetschko (2014) regarding job satisfaction. We scrutinise these findings further in Section 5.2.

Figure 1. Job satisfaction and life satisfaction around job changes

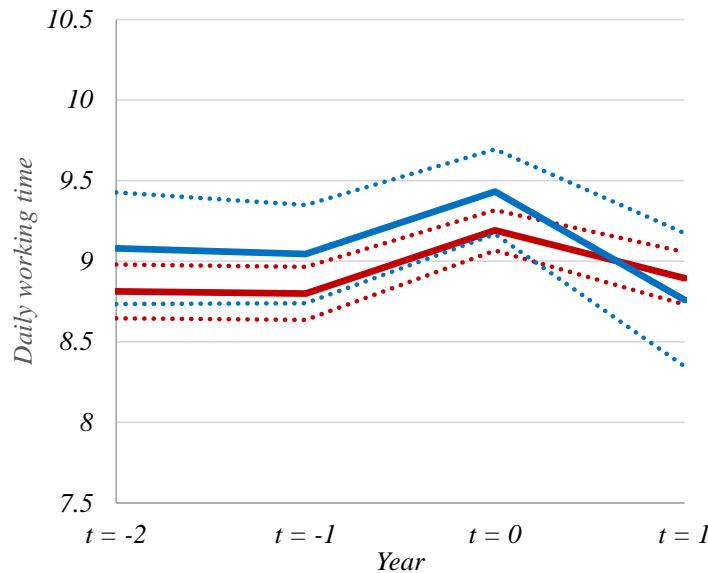


Notes. Points in time ($t = -2, -1, 0, 1$) mark time lags of approximately one year. Job changes take place between $t = -1$ and $t = 0$. Red (blue) lines denote switching after resignation (plant closure). Dotted lines denote 95% confidence intervals.

4.2 Time Use

As hypothesised in Section 2, increasing working time is a potential pathway through which job mobility affects subjective well-being. In the following, we document the average working time changes around the two different types of job mobility, resignation and plant closure. The investigation is similar to the well-being analysis presented in the previous subsection. We illustrate the working time patterns in Figure 2. Working time is measured by the SOEP's time use data on a typical weekday. We exclude those observations of workers who switch twice between $t = -1$ and $t = 0$. In both cases of job mobility, working time does not change significantly between the last two observations of the initial employment relationship, but increases considerably with the employer change. The overall change between $t = -2$ and $t = 0$ is +0.35 hours per day ($p < 0.05$) for changes triggered by plant closure and +0.38 ($p < 0.01$) for changes triggered by resignations. We exploit biennially available SOEP data on weekly time use in order to test whether these findings change when time use during weekends is considered as well. It turns out that weekly working time rises by 0.36 hours per day ($p < 0.05$) when switched because of a plant closure and by 0.43 for those who resigned ($p < 0.01$). Afterwards, time spent working is greatly reduced (between $t = 0$ and $t = 1$).

Figure 2. Working time around job changes



Notes. Points in time ($t = -2, -1, 0, 1$) mark time lags of approximately one year. Job changes take place between $t = -1$ and $t = 0$. Red (blue) lines denote switching after resignation (plant closure). Dotted lines denote 95% confidence intervals.

In the case of self-selected job changes, increased time spent working can be explained in several ways. For instance, in the case of a career jump to a leadership position, becoming familiar with the new job may be time-consuming at first due to higher task variety. In contrast, rising working time after exogenously triggered switches might reflect a necessity to assert oneself at the beginning of a new employment relationship. When workers increase working time, it is plausible that less time is spent in free time activities and home production activities. The time use survey of the SOEP provides information about a selective set of activities that make it possible to cast some light on this supposition. We find weak evidence that workers who switch jobs after plant closures reduce time used for home production activities and hobbies. After resignations, less time is spent in home production activities and education (detailed results are available on request).

5. The impact of job changes on life satisfaction and specific areas of life

5.1 Methodology

In order to analyse the consequences of job mobility for life satisfaction and satisfaction with other areas of life, we apply an individual fixed-effects regression approach. It explains a specific satisfaction (variable *Satisfaction* in the model (4)) of worker i at time t . A binary variable (VJC) becomes one for observations of recent job changes (at time $t = 0$) after resignation and describes the empirical relation of voluntary job changes and the different satisfactions. We focus on recent switches that are exogenously triggered by plant closures (involuntary job change, *INVJC*) in order to identify direct effects of switching jobs on well-being. From a methodological perspective, this event offers the advantage that the ultimate trigger of changes in one's working life does not result from individual activities, such as job performance. Plant closures force job switching among both the willing and the unwilling, those with high work motivation and those with low work motivation.⁷

While the event of plant closure is exogenous from the perspective of the individual worker, a selection issue could nevertheless be that workers' characteristics in plants that are being closed are different from workers' characteristics in surviving plants. For instance, some workers might be able to select out of the initial job before the plant closes when they have

⁷ The coincidental event of a plant closure has been used in previous research, inter alia, to identify the causal effect of unemployment on individual life satisfaction (Kassenboehmer and Haisken-DeNew 2009), on individual health (Schmitz 2011), on the health of spouses (Marcus 2013) and on social participation (Kunze and Suppa 2014). Our previous paper (Chadi and Hetschko 2014) is the first that exploits plant closures as an exogenous source of job mobility to analyse job satisfaction, an idea suggested by e.g. Heywood et al. (2002).

information that allows accurately foreseeing the event. A second issue is that the workers who find jobs quickly after plant closure do so not through pure chance but because they have individual characteristics that are not necessarily representative for the whole population of workers. Having said that, our comprehensive panel dataset allows us to address the potential influence of foreknowledge and of individual workers' characteristics. Consideration of an individual fixed-effect (σ_i) in our model ensures that the estimated coefficients do not reflect general satisfaction differences related to differences in given characteristics of workers. We also address a potential point that the well-being of workers who are prevented from experiencing a closure would adjust differently than that of those who have to switch. To do so, we additionally control for a variety of time-variant aspects of people's lives to make treated observations as comparable as possible to the reference group of observations of workers who do not experience a plant closure. This includes circumstances of family life (F , e.g. being married), personal characteristics (P , e.g. being disabled), household characteristics (HH , e.g. people in need of care living in household) and job characteristics (JOB , e.g. earnings). The underlying empirical model can be written as

$$(4) \text{ Satisfaction}_{it} = \beta VJC_{it} + \gamma INVJC_{it} + \delta' F_{it} + \chi' P_{it} + \phi' HH_{it} + \mu' JOB_{it} + \sigma_i + \tau_t + \varepsilon_{it}$$

Our sensitivity analyses apply the same methodological approach on different samples by varying the data restrictions described in Section 3. Most importantly, an alternative empirical strategy helps to further address the selection issues outlined above. In line with the literature on identifying causal effects of labour market events (or policies) that cannot be analysed by field experiments (e.g. Card et al. 2010, 2011), which obviously applies to our research purposes, we combine a difference-in-differences approach (DiD) with a matching technique to construct a synthetic control group (workers who stay in the same job) that is as similar as possible to our treatment group (workers who switch jobs because of plant closures). The matching technique is entropy balancing (Hainmueller 2012) and is non-parametric, in contrast to the regression approach. It calculates weights for each observation of the control group with the result that the weighted control group equals the treatment group with respect to the means (one moment) of a massive set of conditioning variables, as measured in $t = -2$. The difference between treatment and weighted control group in the change in satisfaction from $t = -2$ to $t = 0$ measures the effect of involuntary switching. In so doing, this check also varies the reference point in time compared to the fixed-effect methodology, which calculated deviations from individual-mean satisfaction over time. A first-difference estimation of this DiD allows us to

control for time effects and the controls we have considered already in the fixed-effects model. Moreover, to address the potential role of having foreknowledge, we can exploit information on workers' expectations of job loss and job change to happen within the next two years, as measured in $t = -2$, to further consider the abilities to select out of a failing firm and to find a new job within a short period of time.

5.2 Life satisfaction

A first specification of the model (4) with life satisfaction as the dependent variable groups the two change types (voluntary / involuntary) in one binary variable ("job change" at time $t = 0$). Individual fixed effects and the interview timing (year, month) are controlled for. The results of the corresponding estimation (and further specifications) are summarised by Table 1 and displayed in detail in the Appendix (Table A2). It turns out that recent job mobility benefits overall well-being. According to the second specification that divides recent switching into the two types of mobility, this general "job change effect" is clearly driven by voluntary changes. Exogenously triggered switches neither increase nor decrease well-being significantly. Adding further and rather exogenous controls taking into account characteristics of workers' family lives (e.g. being widowed), households (e.g. home ownership) and personal background (e.g. age) does not change this result (Specification 3). The fourth specification considers job characteristics that are especially likely to change when workers switch jobs, but does not yield other qualitative findings than the preceding specifications.

Following Clark et al. (2008), we extend the model to lag and lead variables reflecting different points in time around job changes (Specification 5). This step reveals that the honeymoon-hangover pattern of job satisfaction around voluntary employer changes translates into overall subjective well-being. Individual life satisfaction exceeds its mean level significantly in $t = 0$, but returns to its average by $t = 1$. Compared to the picture for job satisfaction (see Chadi and Hetschko 2014), the honeymoon-hangover pattern shows up to be much less pronounced in life satisfaction data.⁸ Moreover, life satisfaction may play a predicting role for resignations (strong negative effect in $t = -1$). This finding is known so far only from the research on job satisfaction (e.g. Clark 2001, Shields and Wheatley Price 2002, Delfgaauw 2007, Lévy-Garboua et al. 2007, Böckerman and Ilmakunnas 2009, Green 2010).

⁸ The results for job satisfaction based on the data set used in the present paper are available upon request.

Table 1. Life satisfaction and job changes (summary)

<i>Specification</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Job change, $t = 0$	0.207*** (0.057)						
Voluntary job change, $t = -2$					-0.155** (0.066)		
Voluntary job change, $t = -1$					-0.289*** (0.067)		
Voluntary job change, $t = 0$		0.236*** (0.063)	0.228*** (0.062)	0.228*** (0.062)	0.165** (0.065)		0.114 (0.122)
Vol. job change, $t = 0$, working more						0.159* (0.094)	
Vol. job change, $t = 0$, working less						0.276*** (0.080)	
Vol. job change, $t = 0 \times$ risk attitude							0.119 (0.091)
Voluntary job change, $t = 1$					-0.033 (0.059)		
Involuntary job change, $t = -2$					0.049 (0.083)		
Involuntary job change, $t = -1$					0.089 (0.096)		
Involuntary job change, $t = 0$		0.047 (0.117)	0.056 (0.113)	0.065 (0.113)	0.080 (0.117)		-0.239 (0.250)
Invol. job change, $t = 0 \times$ risk attitude							0.308** (0.131)
Involuntary job change, $t = 1$					-0.093 (0.119)		
Risk attitude							0.012 (0.012)
Working less compared to last interview						0.005 (0.019)	
Working time, typical working day				0.007 (0.008)	0.007 (0.008)	0.008 (0.009)	0.021 (0.017)
Individual fixed effects	yes	yes	yes	yes	yes	yes	yes
Interview time	yes	yes	yes	yes	yes	yes	yes
Personal controls			yes	yes	yes	yes	yes
Family controls			yes	yes	yes	yes	yes
Household controls			yes	yes	yes	yes	yes
Job controls				yes	yes	yes	yes
Observations	55,247	55,247	55,247	55,247	55,247	55,247	15,167
Number of persons	10,286	10,286	10,286	10,286	10,286	10,286	5,044
R ²	0.012	0.012	0.012	0.017	0.018	0.017	0.012

Notes. * denotes significance at the 10% level, ** at the 5% level and *** at the 1% level. Robust standard errors are in parentheses. Observations correspond to the sample described in Table A1 except that the fixed-effects regressions exclude one-observation groups. The dependent variable is life satisfaction. Regressions consider individual fixed effects and sample weights. The results are presented in detail in Table A2 in the Appendix.

The lags and leads approach does yield one additional finding regarding unintended switches. In contrast to the expectation that one may have, there is no drop in well-being at the end of workers' tenure when a plant closure is about to happen. This is evidence in support of our

identification strategy and the idea to look at job changes following a specific event, which itself does not seem to imply detrimental effects on people's life situation.

As a next step, we expand the model based on the main specification (4) by interactions of recent job switching and the change in working time, according to the time use data, from the initial job to the new job (Specification 6). The idea is that the change in working time accompanying the job change may drive apart the well-being effect of the new job. The difference between the two interaction effects is indeed large though not statistically significant. Using an alternative measurement for working hours produces practically the same result.

Finally, we turn to the potential role of risk aversion in the relationship of forced job change and life satisfaction (see Section 2). We include the general willingness to take risks in the model (Specification 7) as well as its interactions with recent voluntary and recent involuntary job mobility. To ensure that risk attitudes are unaffected by the very changes in peoples' working lives that we aim to study, we use lagged data from two waves prior to the year of the SOEP interview. It turns out that risk aversion modifies the effect of job switching. The finding of a positive interaction effect suggests that relatively risk-prone people may benefit from job changes. Those individuals might be more successful than the risk-averse in dealing with the challenge of a new job, while the latter do not seem to benefit from enforced job changes, as one could conjecture. One explanation for this finding might lie in the high uncertainty about one's future working life at the beginning of a new job, which risk-averse workers typically dislike more compared to risk-prone workers.

Concerning our control variables, Table A2 presents evidence that is in line with previous investigations of people's life satisfaction. Income, objective indicators of health, and partnership are linked to higher subjective well-being, and so are several recent life events such as marriage, moving together with one's partner, moving houses in general and child birth. In contrast, recent death of spouse, recent separation and living with people in need of care in the same household reduce life satisfaction. Autonomy in carrying out tasks, which is positively related to job satisfaction (e.g. Benz and Frey 2008), supports overall well-being as well.

In additional analyses, we test whether our main life satisfaction findings are sensitive towards alternative sample compositions. Among other aspects, we raise the minimum levels of household incomes and earnings, we set minimum and maximum levels of working hours, and we exclude public servants (who essentially cannot lose their jobs). To further check the role of job insecurity, we control for people's reported concerns about their job security. We also check the role of commuting by adding control variables reflecting how often one

commutes from the dwelling to the workplace. Finally, we add a set of control variables for potential survey-specific effects from interviewer presence (Conti and Pudney 2011) and panel experience (Chadi 2013). None of these analyses yields any other qualitative finding than those reported above. Detailed results of all of these robustness checks are available on request.

Applying the alternative difference-in-differences approach confirms the basic results as well. Using entropy balancing with one moment, we match control group and treatment group based on a very large set of individual characteristics and individual expectations of mobility-related events in the next two years, as measured in $t = -2$. A smaller set of conditioning variables allows for entropy balancing with two moments. Neither variants identify any life satisfaction effects of switching triggered by plant closure (see Table A3, Appendix).

5.3 Satisfaction with free time, housing satisfaction and satisfaction with family life

Our theoretical considerations (Section 2) suggest that family life, free time and the housing situation may suffer from involuntary job mobility. In all of the three cases, we apply the same methodology described in Subsection (5.1) and apply each domain satisfaction as the dependent variable of model (4). Summarised results of analysing satisfaction with family life when changing the job are documented in Table 2 (detailed results in Appendix Table A4).⁹ We find that a single binary variable indicating recent job mobility is not significantly related to satisfaction with family life (Specification 1). Estimating a second specification that distinguishes between the reasons of mobility shows that this result originates from the dominance of voluntary switching in the data. Recent switching because of plant closures severely reduces satisfaction with family life. Specification (3) adds a vector of controls that we expect to matter for satisfaction with family life in particular. This leaves the findings unchanged. Furthermore, the picture does not change when all further controls used for the life satisfaction analysis enter the model stepwise (Specifications 4 and 5). In line with our theoretical expectations, working time is negatively related to satisfaction with family life (Table A4).

The results of our family satisfaction analysis also hold when we conduct the robustness checks described before. Entropy balancing is limited to a slightly smaller set of conditioning variables compared to the life satisfaction analysis because of the smaller number of SOEP waves that include information about satisfaction with family life, but the most important ones can be used as well (here family background and expectations of future labour market events).

⁹ Note that the SOEP data allows us to analyse the satisfaction with the family life starting with the data wave of 2006. Since then this variable is included annually.

Table 2. Satisfaction with family life and job changes

<i>Specification</i>	(1)	(2)	(3)	(4)	(5)
Job change	0.025 (0.080)				
Voluntary job change		0.093 (0.083)	0.118 (0.081)	0.086 (0.081)	0.086 (0.081)
Involuntary job change		-0.561** (0.252)	-0.588** (0.252)	-0.590** (0.244)	-0.589** (0.242)
Individual fixed effect	yes	yes	yes	yes	yes
Interview time	yes	yes	yes	yes	yes
Personal controls				yes	yes
Family controls			yes	yes	yes
Household controls				yes	yes
Job controls					yes
Observations	42,759	42,759	42,759	42,759	42,759
Number of persons	9,116	9,116	9,116	9,116	9,116
R ²	0.004	0.005	0.037	0.041	0.045

Notes. * denotes significance at the 10% level, ** at the 5% level and *** at the 1% level. Robust standard errors are in parentheses. Fewer observations are used compared to the life satisfaction regressions because of missing data about satisfaction with family life before the 2006 SOEP wave. The dependent variable is satisfaction with family life. Regressions consider individual fixed effects and sample weights. Detailed results are presented in Appendix Table A4.

In the cases of satisfaction with free time and the place of dwelling, job changing seems to have no particular effect (see Appendix Tables A5 and A6). We proceed in the same way as in the case of the estimation of satisfaction with family life: starting with the general job change effect, differentiating it for switches triggered by plant closures and resignations and proceeding with a domain-specific vector of controls (housing satisfaction: household controls, satisfaction with free time: personal controls). Finally, the full set of characteristics of the life satisfaction analysis are controlled for. Voluntary switching seems to be unrelated with respect to both life domain satisfactions. The same applies for the relation of involuntarily triggered mobility and housing satisfaction. Free time satisfaction seems negatively related to switching after plant closure, though not at a significant level. In line with our theoretical expectations, working time is negatively related to free time satisfaction. Applying the robustness analyses previously described to free time satisfaction and housing satisfaction does not lead to new insights. In sum, our analyses of different areas of life suggest that job changing, if involuntarily triggered by exogenous events, negatively affects family life while the other domains of housing and free time do not seem to be affected.

6. Discussion

As two of our major findings, our study shows that an involuntary change of employer reduces satisfaction with family life, but not satisfaction with one's life as whole. A potential interpretation is that satisfaction with family life hardly plays any role in overall well-being, at least not in the short-run, or that this measure might be not very meaningful. In recent research on the economic relevance of subjective well-being measures, however, Benjamin et al. (2014a) find that family-related happiness is one of the strongest predictors of people's choices.¹⁰ Hence, in order to contribute to ongoing research on the economic relevance of well-being measures and to learn more about this specific subjective indicator, we examine the potential implications of variation in satisfaction with family life for future domestic decisions. This also allows us to assess the economic significance of the previously revealed impact of forced job changes on family well-being (Table 2).

We run probit estimations of the probabilities of child birth, marriage, divorce, separation and moving together with one's partner in the next year respectively in two years, dependent on family satisfaction and various controls (gender, age, age squared, survey year, overnight stays in hospital, disability, unemployment and employment experience, federal state, home ownership, home size, number of household members, log equivalised household income, daily working time). The analyses rely on the sample underlying the previous estimates of family satisfaction as dependent variable.¹¹ Observations drop out when they do not provide all of the information needed. Table A7 in the Appendix reveals that family satisfaction is a significant predictor of domestic events, with the exception of moving together with the partner. Higher satisfaction scores relate positively with future marriage and child birth, and negatively with divorce and separation. Post-estimation calculations of the marginal effects imply that a one-point increase in family satisfaction increases the probability of marriage (child birth) in the next year from 2.00% to 2.22% (from 2.56% to 2.7%). If satisfaction with family life reduces by one point, the probability of divorce in the next but one year rises by about 13.1% (from 0.61% to 0.69%). Given that a forced job change reduces family satisfaction by about 0.5 points according to Table 2, this translates into a 5.5% lower probability of marriage in the next year

¹⁰ Summarizing the findings in Benjamin et al. (2012) and Benjamin et al. (2014b), the authors conclude that 'family-SWB measures are not commonly used in empirical applications, but warrant exploration.' In a recent paper, Bertrand et al. (2015) inspect people's happiness with their marriage and find that couples where the wife earns more than the husband are less satisfied. They also find that those couples are more likely to divorce.

¹¹ We obtain very similar findings if we exclude cases from the sample when the respective event is unlikely (e.g. persons who are not married if the future event is divorce).

and a 6.6% higher probability of divorce in the year after the next.¹² Remarkably, the calculations of hypothetical effects of job changes on family events correspond qualitatively to some rough figures derived from further inspection of those cases of individuals who actually have to switch jobs due to plant closure in our data. While for this group the probability of marriage is about 7% in $t = -2$, i.e. two years prior to job switching, it is less than 2% in the first year of the new job ($t = 0$). Similarly, the probability of child birth decreases by almost 4 percentage points from $t = -2$ to $t = 1$, which suggests that people hesitate to conceive a child in $t = 0$. Forcing people to change the job might thus impair fertility or at least could trigger a delay in begetting of children.

In sum, we conclude that satisfaction with family life is a meaningful measure of well-being derived from family life as it is strongly related to domestic life events. We can conclude that the negative impact of job changes on family life is economically relevant as it implies substantial behavioural responses. Having said this, one may ask why there is no immediate negative impact of involuntary job switching on our broad measure of subjective well-being. The empirical finding that switching seems neutral for life satisfaction may point to the existence of another, so far unrevealed factor that may offsets the negative implications of the new job for the family life. Perhaps, the variation of tasks, routines or daily life accompanying each employer change improves well-being beyond what is measured in reported satisfaction with the job itself. Working in a new job environment might increase the feeling of leading a purposeful and meaningful life, which is expectably as important for the people as it is difficult for empirical researchers to measure (Loewenstein 1999). Identifying the unobserved reason why the negative impact of switching on family life seems to be offset when it comes to overall well-being remains a promising avenue for future research. Besides the previously mentioned positive effects of switching itself, we suspect that the decline in family-related well-being and subsequent changes in family life may reflect future reductions in life satisfaction. Hence, the transmission process from family life to overall well-being might be deferred and could be revealed through an analysis of well-being over the life-course.¹³ Another potential transmission channel that future research may look at is the interdependency in well-being between family members (Winkelmann 2005), as, for example, individuals might respond very differently to changes in the employment situation of a partner (e.g. Clark 2003).

¹² Using the tool of survival analysis, we observe that current satisfaction with family life predicts the duration to each domestic event in the expected way. For instance, high family satisfaction prolongs the survival time of partnerships, i.e. the duration to separation. Results are available upon request.

¹³ For life-cycle analyses of well-being data see Frijters et al. (2014) and Layard et al. (2014).

7. Conclusion

By applying life satisfaction as a global measure of individual welfare to the consequences of job changes, we establish several important findings with policy relevance. First of all, the honeymoon-hangover pattern shows up as it does in investigations of labour mobility and its role for the satisfaction with one's job (e.g. Boswell et al. 2005, Chadi and Hetschko 2014). Comparing the magnitudes reveals that life satisfaction reflects honeymoon and hangover to a much lesser extent than job satisfaction. The job change premium is not as large for people's lives as it is for their work lives. This is in line with findings from the application of the domain satisfaction approach and analyses of the job satisfaction-life satisfaction relationship. Turning to the case of involuntary job switching, however, we do not observe an effect in people's life satisfaction on average.

Policy implications are straightforward, although one needs to bear in mind that we investigate only some particular and rather short-term consequences of labour market flexibilisation. First, our results suggest a positive welfare effect from easing employment protection, which originates from more opportunities to switch jobs voluntarily (more turnover, more vacancies). We also conclude that this implication appears to be overestimated when looking at job satisfaction only. Second, the result that involuntary mobility does not affect life satisfaction on average implies that switching itself neither increases nor decreases overall subjective well-being. In that sense, labour market flexibilisation seems neither beneficial nor harmful for the average person. Another interpretation of our results is that people behave rationally in the sense that they do not need to be nudged or even forced to switch jobs before they actually intend to do so.

This, however, does not mean that forced switching has no impact at all. In fact, the present results allow us to shed light on potential drawbacks of job changes. On the one hand, uncertainty about future employment stability and promotions can explain why people may be highly engaged in working at the expense of family life at the beginning of a new employment relationship and why relatively risk-averse people suffer from being forced to change the job. On the other hand, the results also imply that labour market flexibilisation may be more successful the more risk-prone individuals are. Considering that societies can be very different in their overall economic preferences due to cultural reasons (Kwok and Tadesse 2006), our study provides another explanation why some countries tend to have and are consequently better off with a flexible labour market.

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Appendix

Table A1. Main sample

			No recent switch		Switch: resigned		Switch: plant closed	
Number of observations*			56,587		1,030		184	
	min	max	mean / share	standard deviation	mean / share	standard deviation	mean / share	standard deviation
Satisfaction with life	0	10	7.10	1.56	7.28	1.51	6.89	1.64
Satisfaction with job	0	10	6.98	1.91	7.47	1.91	6.51	2.11
Satisfaction with place of dwelling	0	10	7.80	1.80	7.60	1.92	7.54	1.94
Satisfaction with family life	0	10	7.74	1.86	7.78	1.86	7.30	1.98
Satisfaction with free time	0	10	6.55	2.06	6.27	2.21	6.19	2.24
Female (share)			0.45		0.47		0.37	
Age (years)	19	59	42.94	9.29	36.02	8.74	40.70	9.89
Overnight stays in hospital last year	0	290	0.73	4.73	0.41	2.43	0.46	1.94
Disability (share)			0.06		0.02		0.06	
Unemployment experience (years)	0	24	0.38	1.05	0.46	0.95	0.37	0.61
Employment experience (years)	0	48.4	20.05	9.62	12.68	8.24	18.66	9.89
<i>Marital status (shares):</i>								
married			0.68		0.54		0.68	
separated			0.02		0.02		0.02	
divorced			0.08		0.06		0.05	
widowed			0.01		0.01		0.01	
Having a life partner (share)			0.87		0.83		0.90	
Not-employed partner (share)			0.17		0.14		0.20	
Children (< 18 years old) in household	0	9	0.67	0.93	0.72	0.95	0.72	1.01
People in need of care in household (share)			0.02		0.01		0.02	
Housing space (m ²)	9	470	107.27	43.12	99.59	41.94	97.84	38.03
Owning home (share)			0.55		0.37		0.46	
Number of household members	1	14	2.91	1.23	2.82	1.29	3.02	1.27
Monthly equivalised income (2006 Euros)	5.29	44,317	1857.38	959.83	1783.78	820.97	1631.43	591.12
Monthly labour earnings (Euros)	42	18,000	1721.34	1009.15	1570.73	968.96	1524.22	751.33
<i>Sector (shares):</i>								
manufacturing			0.20		0.18		0.28	0.45
construction			0.12		0.13		0.19	0.39
trade			0.12		0.18		0.21	0.4
transport			0.05		0.05		0.04	
banking and finance			0.05		0.04		0.02	
public administration			0.11		0.03		0.03	
education			0.08		0.05		0.00	
health and social services			0.11		0.16		0.05	
other services			0.11		0.15		0.14	
agriculture, energy, mining			0.03		0.02		0.03	
<i>Company size (shares):</i>								
< 20 employees			0.19		0.26		0.35	
20-199 employees			0.30		0.32		0.34	
200-1999 employees			0.24		0.23		0.16	
≥ 2000 employees			0.25		0.18		0.15	
White collar (share)			0.60		0.70		0.61	
Blue collar (share)			0.31		0.28		0.38	
Public servants (share)			0.10		0.03		0.02	
Autonomy in carrying out tasks	1	5	2.82	1.07	2.80	1.06	2.70	1.02
Daily working time (hours)	0	24	8.86	2.08	9.17	2.29	9.37	1.82

Notes. *the numbers of observation are smaller because of missing information in the cases of satisfaction with free time, satisfaction with family life, partners' employment state, sectors, and company size.

Table A2. Life satisfaction and job changes (detailed results)

<i>Specification</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Job change, $t = 0$	0.207*** (0.057)						
Voluntary job change, $t = -2$					-0.155** (0.066)		
Voluntary job change, $t = -1$					-0.289*** (0.067)		
Voluntary job change, $t = 0$		0.236*** (0.063)	0.228*** (0.062)	0.228*** (0.062)	0.165** (0.065)		0.114 (0.122)
Voluntary job change, $t = 0$, working more						0.159* (0.094)	
Voluntary job change, $t = 0$, working less						0.276*** (0.080)	
Voluntary job change, $t = 0 \times$ general risk attitude							0.119 (0.091)
Voluntary job change, $t = 1$					-0.033 (0.059)		
Plant closure, $t = -2$					0.049 (0.083)		
Plant closure, $t = -1$					0.089 (0.096)		
Plant closure, $t = 0$		0.047 (0.117)	0.056 (0.113)	0.065 (0.113)	0.080 (0.117)		-0.239 (0.250)
Plant closure, $t = 0$, working more						-0.150 (0.191)	
Plant closure, $t = 0$, working less						0.193 (0.141)	
Plant closure, $t = 0 \times$ general risk attitude							0.308** (0.131)
Plant closure, $t = 1$					-0.093 (0.119)		
General risk attitude							0.012 (0.012)
Working less compared to last interview						0.005 (0.019)	
Working time, typical working day				0.007 (0.008)	0.007 (0.008)	0.008 (0.009)	0.021 (0.017)
Number of children: 0			-0.004 (0.047)	-0.026 (0.047)	-0.026 (0.047)	-0.026 (0.047)	0.012 (0.117)
Number of children: 1			-0.001 (0.033)	-0.000 (0.033)	-0.000 (0.033)	-0.000 (0.033)	-0.075 (0.084)
Number of children: 3 or more			0.017 (0.067)	0.010 (0.067)	0.007 (0.067)	0.010 (0.067)	-0.121 (0.121)
Living with people in need of care in the same household: yes			-0.328** (0.150)	-0.336** (0.149)	-0.332** (0.148)	-0.336** (0.149)	-0.227 (0.238)
Being married: yes			0.063 (0.062)	0.046 (0.062)	0.048 (0.062)	0.047 (0.062)	0.030 (0.144)
Being divorced: yes			0.125 (0.100)	0.125 (0.099)	0.124 (0.098)	0.125 (0.099)	0.002 (0.249)
Being separated: yes			-0.219** (0.109)	-0.213* (0.109)	-0.210* (0.109)	-0.215** (0.109)	-0.203 (0.236)
Being widowed: yes			0.127 (0.230)	0.104 (0.228)	0.113 (0.228)	0.103 (0.228)	0.742 (0.821)
Recent marriage: yes			0.219*** (0.058)	0.215*** (0.058)	0.211*** (0.058)	0.215*** (0.058)	0.299** (0.119)
Recent divorce: yes			-0.066 (0.122)	-0.054 (0.122)	-0.054 (0.121)	-0.055 (0.122)	0.165 (0.297)
Recent separation: yes			-0.092 (0.076)	-0.090 (0.076)	-0.094 (0.076)	-0.089 (0.076)	-0.067 (0.155)
Recent death of spouse: yes			-0.928*** (0.294)	-0.926*** (0.292)	-0.933*** (0.291)	-0.926*** (0.292)	-1.136 (0.761)
Recent child birth: yes			0.156*** (0.050)	0.159*** (0.050)	0.157*** (0.050)	0.158*** (0.050)	0.202* (0.113)
Recent positive change in living with people in need of care in the same household: yes			0.059 (0.173)	0.067 (0.173)	0.069 (0.173)	0.067 (0.173)	0.289 (0.323)
Partner: yes, not employed			0.283*** (0.065)	0.288*** (0.065)	0.289*** (0.065)	0.288*** (0.065)	0.225 (0.154)
Partner: yes, fulltime employed			0.432*** (0.060)	0.387*** (0.060)	0.391*** (0.060)	0.387*** (0.060)	0.425*** (0.147)
Partner: yes, part-time employed			0.361*** (0.065)	0.343*** (0.066)	0.344*** (0.065)	0.342*** (0.066)	0.320** (0.148)

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<i>Specification (ctd.)</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Partner: yes, other type of employment			0.254*** (0.074)	0.260*** (0.074)	0.262*** (0.074)	0.259*** (0.074)	0.217 (0.168)
Partner: yes, employment status missing			0.341*** (0.045)	0.335*** (0.045)	0.336*** (0.045)	0.336*** (0.045)	0.310*** (0.097)
Home ownership: yes			0.011 (0.038)	0.006 (0.038)	0.007 (0.038)	0.006 (0.038)	0.069 (0.084)
Recent positive change in home ownership: yes			0.049 (0.054)	0.048 (0.054)	0.047 (0.054)	0.047 (0.054)	-0.257** (0.118)
Size of housing			0.004*** (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.004*** (0.001)	-0.004 (0.003)
Size of housing squared			-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	0.000 (0.000)
Recently moved together with partner: yes			-0.028 (0.020)	-0.002 (0.020)	-0.003 (0.020)	-0.002 (0.020)	0.062 (0.050)
Being moved			0.127*** (0.034)	0.132*** (0.034)	0.133*** (0.034)	0.132*** (0.034)	0.238*** (0.070)
Recently moved housing: yes			0.118** (0.058)	0.114* (0.058)	0.110* (0.058)	0.116** (0.058)	0.096 (0.137)
Age squared			-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.001)
Number of overnight stays in hospital			-0.011*** (0.003)	-0.011*** (0.003)	-0.011*** (0.003)	-0.011*** (0.003)	-0.002 (0.004)
Disability: yes			-0.242*** (0.073)	-0.237*** (0.072)	-0.235*** (0.072)	-0.235*** (0.072)	0.041 (0.176)
Years of unemployment experience			-0.047 (0.071)	-0.030 (0.071)	-0.034 (0.072)	-0.029 (0.070)	-0.039 (0.287)
Years of employment experience			-0.038 (0.028)	-0.041 (0.028)	-0.038 (0.028)	-0.042 (0.028)	-0.112 (0.079)
Log. equalised household income at 2006 €				0.280*** (0.042)	0.275*** (0.042)	0.279*** (0.042)	0.232** (0.116)
Log. labour earnings				0.044 (0.043)	0.037 (0.043)	0.043 (0.043)	-0.058 (0.099)
Manufacturing sector: yes				0.147 (0.111)	0.142 (0.110)	0.146 (0.111)	0.190 (0.217)
Construction sector: yes				0.093 (0.113)	0.083 (0.112)	0.092 (0.113)	0.074 (0.217)
Trade sector: yes				0.157 (0.115)	0.153 (0.114)	0.155 (0.115)	0.169 (0.217)
Transport sector: yes				0.029 (0.127)	0.023 (0.126)	0.029 (0.127)	0.066 (0.247)
Banking and finance sector: yes				0.252 (0.159)	0.238 (0.158)	0.251 (0.158)	0.124 (0.302)
Public administration sector: yes				0.126 (0.120)	0.116 (0.119)	0.125 (0.120)	-0.074 (0.229)
Education sector: yes				0.181 (0.134)	0.163 (0.134)	0.179 (0.134)	0.168 (0.258)
Health and social services sector: yes				0.135 (0.138)	0.124 (0.137)	0.132 (0.138)	0.033 (0.247)
Other services sector: yes				0.103 (0.113)	0.103 (0.112)	0.101 (0.113)	0.046 (0.213)
Missing sector information sector: yes				0.037 (0.119)	0.029 (0.119)	0.036 (0.119)	0.114 (0.222)
Company size 20-199 employees: yes				0.082* (0.043)	0.079* (0.043)	0.083* (0.043)	0.080 (0.092)
Company size 200-1999 employees: yes				0.074 (0.050)	0.067 (0.050)	0.075 (0.050)	0.060 (0.107)
Company size 2000 employees or more: yes				0.048 (0.053)	0.044 (0.053)	0.049 (0.053)	0.029 (0.108)
Missing company size information sector: yes				0.103 (0.114)	0.100 (0.114)	0.104 (0.114)	0.105 (0.209)
White collar: yes				-0.112 (0.099)	-0.107 (0.098)	-0.110 (0.099)	-0.098 (0.178)
Blue collar: yes				-0.078 (0.107)	-0.070 (0.107)	-0.076 (0.107)	-0.155 (0.199)
Level of autonomy in carrying out tasks: 2				0.036 (0.054)	0.036 (0.054)	0.036 (0.054)	-0.064 (0.111)
Level of autonomy in carrying out tasks: 3				0.105* (0.062)	0.105* (0.062)	0.105* (0.062)	-0.037 (0.127)
Level of autonomy in carrying out tasks: 4				0.101 (0.070)	0.102 (0.070)	0.102 (0.070)	-0.010 (0.147)
Level of autonomy in carrying out tasks: 5				0.177** (0.090)	0.178** (0.090)	0.178** (0.090)	-0.143 (0.187)

To be continued on the next page!

<i>Specification (ctd.)</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Federal state: Hamburg	0.108 (0.279)	0.108 (0.278)	0.254 (0.280)	0.226 (0.278)	0.224 (0.276)	0.222 (0.278)	-0.077 (0.738)
Federal state: Lower Saxony	-0.329 (0.309)	-0.331 (0.309)	-0.210 (0.309)	-0.212 (0.311)	-0.229 (0.309)	-0.216 (0.310)	-0.374 (0.807)
Federal state: Bremen	0.201 (0.385)	0.201 (0.385)	0.296 (0.384)	0.275 (0.383)	0.249 (0.381)	0.271 (0.383)	0.338 (0.963)
Federal state: North Rhine Westphalia	-0.094 (0.355)	-0.096 (0.354)	0.075 (0.353)	0.062 (0.353)	0.067 (0.349)	0.052 (0.352)	-0.291 (0.794)
Federal state: Hesse	0.181 (0.426)	0.178 (0.425)	0.315 (0.424)	0.264 (0.424)	0.275 (0.419)	0.254 (0.423)	0.152 (0.750)
Federal state: Rhineland Palatinate	-0.049 (0.498)	-0.053 (0.497)	0.060 (0.497)	0.013 (0.497)	0.026 (0.490)	0.003 (0.496)	-1.212 (0.952)
Federal state: Baden-Württemberg	-0.251 (0.485)	-0.255 (0.484)	-0.208 (0.481)	-0.243 (0.480)	-0.273 (0.474)	-0.254 (0.478)	-0.387 (0.912)
Federal state: Bavaria	0.077 (0.430)	0.079 (0.429)	0.122 (0.428)	0.079 (0.428)	0.045 (0.424)	0.070 (0.426)	-0.476 (0.884)
Federal state: Saarland	-0.064 (0.525)	-0.068 (0.524)	0.061 (0.525)	0.028 (0.524)	0.044 (0.517)	0.018 (0.523)	1.149 (1.276)
Federal state: Berlin	-0.483 (0.506)	-0.487 (0.506)	-0.262 (0.518)	-0.210 (0.522)	-0.231 (0.521)	-0.223 (0.521)	-0.396 (1.055)
Federal state: Brandenburg	-0.507 (0.484)	-0.509 (0.484)	-0.324 (0.488)	-0.341 (0.490)	-0.340 (0.488)	-0.349 (0.489)	-1.308 (0.942)
Federal state: Mecklenburg-Vorpommern	0.407 (0.396)	0.406 (0.396)	0.445 (0.388)	0.445 (0.392)	0.478 (0.394)	0.439 (0.392)	0.724 (0.851)
Federal state: Saxony	-0.012 (0.465)	-0.015 (0.464)	0.128 (0.460)	0.144 (0.461)	0.127 (0.461)	0.136 (0.461)	-1.495 (0.985)
Federal state: Saxony Anhalt	-0.016 (0.555)	-0.017 (0.554)	0.012 (0.564)	-0.022 (0.564)	-0.002 (0.563)	-0.015 (0.565)	0.497 (0.887)
Federal state: Thuringia	-0.022 (0.472)	-0.026 (0.472)	0.146 (0.470)	0.237 (0.470)	0.190 (0.467)	0.233 (0.469)	-0.677 (0.955)
Individual fixed effects	yes	yes	yes	yes	yes	yes	yes
Interview time	yes	yes	yes	yes	yes	yes	yes
Observations	55,247	55,247	55,247	55,247	55,247	55,247	15,167
Number of persons	10,286	10,286	10,286	10,286	10,286	10,286	5,044
R ²	0.012	0.012	0.012	0.017	0.018	0.017	0.012

Notes. *denotes significance at the 10% level, **at the 5% level and ***at the 1% level. Robust standard errors are in parentheses. Observations correspond to the sample described in Table A1 except that the fixed-effects regressions exclude one-observation groups. The dependent variable is life satisfaction. Regressions consider individual fixed effects and sample weights.

Table A3. Difference-in-difference based on (re-)weighted samples

	(1) SOEP sample weights used	(2) Entropy Balancing, one moment	(3) Entropy Balancing, two moments
Involuntary job change	0.007 (0.147)	0.002 (0.118)	-0.042 (0.107)
Number of observations	52,930	52,930	52,930
R ²	0.008	0.088	0.091

Notes. The DiD OLS regression analysis explains the difference between people who switch jobs due to plant closure and people who stay in the same job in the change in life satisfaction between $t=-2$ and $t=0$. Conditioning variables account for year of $t=0$ and the following characteristics as measured at $t=-2$: Expectations of job change, resignation, job search and job loss in the next two years, marital status, employment status of life partner, number of children, people in need of care living in household, home ownership, relocation, household size (members, square meters), age, gender, equivalised income, labour earnings, years of education, lifetime unemployment and employment experience, health (disability, recent overnight stays in hospital), company size, autonomy in carrying out tasks, tenure, working time.

Table A4. Satisfaction with family life and job changes (detailed results)

<i>Specification</i>	(1)	(2)	(3)	(4)	(5)
Job change	0.025 (0.085)				
Voluntary job change		0.093 (0.083)	0.118 (0.081)	0.086 (0.081)	0.086 (0.081)
Involuntary job change		-0.561** (0.252)	-0.588** (0.252)	-0.590** (0.244)	-0.589** (0.242)
Working time, typical working day					-0.027** (0.012)
Number of children: 0			-0.140** (0.070)	-0.044 (0.074)	-0.044 (0.074)
Number of children: 1			-0.049 (0.055)	-0.004 (0.055)	-0.005 (0.055)
Number of children: 3 or more			0.239* (0.124)	0.202* (0.122)	0.191 (0.122)
Living with people in need of care in the same household: yes			-0.260 (0.187)	-0.281 (0.185)	-0.263 (0.187)
Being married: yes			-0.010 (0.100)	-0.007 (0.100)	-0.008 (0.099)
Being divorced: yes			0.100 (0.160)	0.079 (0.160)	0.082 (0.160)
Being separated: yes			-0.202 (0.187)	-0.210 (0.187)	-0.200 (0.187)
Being widowed: yes			-0.033 (0.480)	-0.107 (0.477)	-0.047 (0.475)
Recent marriage: yes			0.406*** (0.075)	0.389*** (0.076)	0.392*** (0.076)
Recent divorce: yes			0.080 (0.208)	0.074 (0.206)	0.083 (0.206)
Recent separation: yes			-0.539*** (0.124)	-0.570*** (0.124)	-0.554*** (0.125)
Recent death of spouse: yes			-0.978** (0.473)	-0.982** (0.469)	-0.989** (0.465)
Recent child birth: yes			0.278*** (0.088)	0.269*** (0.087)	0.263*** (0.087)
Recent positive change in living with people in need of care in the same household: yes			0.210 (0.218)	0.226 (0.217)	0.208 (0.217)
Partner: yes, not employed			0.872*** (0.118)	0.744*** (0.121)	0.761*** (0.120)
Partner: yes, fulltime employed			1.011*** (0.108)	0.880*** (0.110)	0.844*** (0.110)
Partner: yes, part-time employed			0.987*** (0.113)	0.856*** (0.115)	0.845*** (0.115)
Partner: yes, other type of employment			0.902*** (0.128)	0.775*** (0.131)	0.781*** (0.130)
Partner: yes, employment status missing			0.832*** (0.080)	0.789*** (0.081)	0.790*** (0.080)
Home ownership: yes				-0.039 (0.075)	-0.049 (0.074)
Recent positive change in home ownership: yes				-0.006 (0.080)	-0.002 (0.079)
Size of housing				0.006*** (0.002)	0.005** (0.002)
Size of housing squared				-0.000* (0.000)	-0.000 (0.000)
Recently moved together with partner: yes				0.037 (0.031)	0.061* (0.032)
Being moved				0.125** (0.054)	0.127** (0.054)
Recently moved housing: yes				0.375*** (0.090)	0.372*** (0.090)
Age squared				-0.000 (0.000)	-0.000 (0.000)
Number of overnight stays in hospital				-0.001 (0.003)	-0.002 (0.003)
Disability: yes				-0.058 (0.112)	-0.065 (0.111)
Years of unemployment experience				0.164 (0.210)	0.136 (0.208)
Years of employment experience				0.034 (0.037)	0.035 (0.037)

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<i>Specification (ctd.)</i>	(1)	(2)	(3)	(4)	(5)
Log. Equalised household income at 2006 €					0.198*** (0.066)
Log. Labour earnings					-0.154** (0.062)
Manufacturing sector: yes					0.082 (0.139)
Construction sector: yes					0.033 (0.144)
Trade sector: yes					-0.107 (0.148)
Transport sector: yes					0.152 (0.195)
Banking and finance sector: yes					-0.495** (0.230)
Public administration sector: yes					-0.138 (0.165)
Education sector: yes					0.062 (0.186)
Health and social services sector: yes					0.037 (0.181)
Other services sector: yes					0.003 (0.146)
Missing sector information sector: yes					-0.084 (0.169)
Company size 20-199 employees: yes					-0.014 (0.069)
Company size 200-1999 employees: yes					0.025 (0.077)
Company size 2000 employees or more: yes					-0.013 (0.079)
Missing company size information sector: yes					-0.109 (0.142)
White collar: yes					0.256 (0.218)
Blue collar: yes					0.321 (0.229)
Level of autonomy in carrying out tasks: 2					0.099 (0.084)
Level of autonomy in carrying out tasks: 3					0.175* (0.105)
Level of autonomy in carrying out tasks: 4					0.218* (0.114)
Level of autonomy in carrying out tasks: 5					0.199 (0.150)
Federal state: German Länder	yes	yes	yes	yes	yes
Individual fixed effects	yes	yes	yes	yes	yes
Interview time	yes	yes	yes	yes	yes
Observations	37,773	37,773	37,773	37,773	37,773
R ²	0.004	0.005	0.037	0.041	0.045
Number of persons	8,274	8,274	8,274	8,274	8,274

*Notes. *denotes significance at the 10% level, **at the 5% level and ***at the 1% level. Robust standard errors are in parentheses. Fewer observations are used compared to the life satisfaction regressions because of missing data about satisfaction with family life before the 2006 SOEP wave. The dependent variable is satisfaction with family life. Regressions consider individual fixed effects and sample weights.*

Table A5. Housing satisfaction and job changes

<i>Specification:</i>	(1)	(2)	(3a)	(3b)	(4)
Job change	0.003 (0.069)				
Voluntary job change		0.005 (0.078)	-0.058 (0.073)	-0.053 (0.072)	-0.053 (0.072)
Involuntary job change		-0.004 (0.122)	0.008 (0.114)	0.028 (0.111)	0.041 (0.111)
Individual fixed effect	yes	yes	yes	yes	yes
Interview time	yes	yes	yes	yes	yes
Personal controls				yes	yes
Family controls				yes	yes
Household controls			yes	yes	yes
Job controls					yes
Observations	55,247	55,247	55,247	55,247	55,247
Number of persons	10,286	10,286	10,286	10,286	10,286
R ²	0.012	0.012	0.091	0.094	0.095

Notes. *denotes significance at the 10% level, ** at the 5% level and *** at the 1% level. Robust standard errors are in parentheses. Observations correspond to the life satisfaction analysis. The dependent variable is housing satisfaction. Regressions consider individual fixed effects and sample weights. Detailed results are available on request.

Table A6. Satisfaction with free time and job changes

<i>Specification:</i>	(1)	(2)	(3a)	(3b)	(4)
Job change	-0.017 (0.078)				
Voluntary job change		0.019 (0.080)	0.016 (0.080)	0.008 (0.080)	0.012 (0.079)
Involuntary job change		-0.222 (0.256)	-0.229 (0.256)	-0.213 (0.257)	-0.225 (0.254)
Individual fixed effect	yes	yes	yes	yes	yes
Interview time	yes	yes	yes	yes	yes
Personal controls			yes	yes	yes
Family controls				yes	yes
Household controls				yes	yes
Job controls					yes
Observations	51,140	51,140	51,140	51,140	51,140
Number of persons	9,142	9,142	9,142	9,142	9,142
R ²	0.003	0.003	0.004	0.009	0.019

Notes. *denotes significance at the 10% level, ** at the 5% level and *** at the 1% level. Robust standard errors are in parentheses. The number of observations is fewer compared to the life satisfaction analysis because of information about the satisfaction with free time is missing in the SOEP wave of 1995. The dependent variable is free time satisfaction. Regressions consider individual fixed effects and sample weights. Detailed results are available on request.

Table A7. Family satisfaction and family life events (Probit estimations)

Probability of	Marriage		Child birth		Divorce		Separation		Moving together with partner	
	next year	year after next	next year	year after next	next year	year after next	next year	year after next	next year	year after next
Female	-0.051 (0.055)	-0.089 (0.061)	-0.154*** (0.051)	-0.107* (0.055)	-0.113 (0.079)	-0.022 (0.077)	0.134** (0.056)	0.163*** (0.058)	0.034 (0.054)	-0.024 (0.060)
Age	-0.035*** (0.007)	-0.028*** (0.007)	-0.063*** (0.012)	-0.063*** (0.013)	0.032*** (0.008)	0.026*** (0.009)	-0.018*** (0.006)	-0.015** (0.007)	-0.029*** (0.007)	-0.025*** (0.007)
Age ²	-0.000 (0.000)	0.000 (0.000)	-0.005*** (0.001)	-0.004*** (0.001)	-0.002*** (0.000)	-0.002*** (0.001)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	0.001** (0.000)
Overnight stays in hospital	-0.000 (0.003)	-0.006 (0.007)	0.000 (0.005)	-0.005 (0.006)	0.005 (0.005)	-0.046* (0.028)	0.003 (0.004)	0.000 (0.005)	0.005 (0.005)	-0.007 (0.007)
Disability	0.192 (0.117)	0.050 (0.137)	-0.133 (0.121)	-0.091 (0.131)	0.111 (0.144)	-0.307* (0.161)	0.025 (0.118)	-0.144 (0.111)	0.090 (0.122)	-0.082 (0.143)
Overall unemployment experience	0.057*** (0.015)	0.043** (0.018)	-0.006 (0.025)	0.017 (0.026)	-0.071** (0.031)	-0.051* (0.029)	-0.029 (0.026)	-0.049* (0.029)	-0.029 (0.025)	-0.048* (0.028)
Overall fulltime/part-time experience	0.002 (0.007)	-0.002 (0.007)	-0.020** (0.008)	-0.025*** (0.009)	-0.020*** (0.007)	-0.012 (0.009)	-0.006 (0.007)	-0.010 (0.007)	-0.011 (0.007)	-0.014* (0.008)
Home ownership	-0.173*** (0.064)	-0.083 (0.075)	-0.142** (0.062)	-0.151** (0.071)	-0.369*** (0.097)	-0.247** (0.115)	-0.216*** (0.065)	-0.120* (0.067)	-0.191*** (0.071)	-0.068 (0.076)
Home size	0.016*** (0.004)	0.013*** (0.004)	0.005** (0.002)	0.007*** (0.002)	0.008** (0.004)	0.005 (0.004)	0.003 (0.002)	0.000 (0.002)	0.002 (0.003)	0.002 (0.003)
Home size ²	-0.000*** (0.000)	-0.000*** (0.000)	-0.000* (0.000)	-0.000** (0.000)	-0.000* (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Number of household members	-0.101*** (0.031)	-0.200*** (0.043)	-0.006 (0.025)	-0.021 (0.028)	-0.282*** (0.055)	-0.186*** (0.045)	-0.012 (0.029)	0.043 (0.028)	-0.362*** (0.044)	-0.357*** (0.047)
Log equivalised household income	0.438*** (0.077)	0.204** (0.094)	0.114 (0.075)	0.211*** (0.081)	-0.315*** (0.106)	-0.091 (0.118)	-0.034 (0.065)	0.017 (0.079)	-0.078 (0.084)	-0.125 (0.083)
Daily working time	0.016 (0.012)	0.020 (0.015)	0.004 (0.014)	0.024 (0.015)	-0.044** (0.022)	-0.069*** (0.017)	0.017 (0.012)	0.028* (0.015)	0.030** (0.013)	0.001 (0.015)
Family satisfaction	0.070*** (0.015)	0.042*** (0.015)	0.103*** (0.014)	0.044*** (0.014)	-0.071*** (0.016)	-0.092*** (0.017)	-0.121*** (0.012)	-0.087*** (0.013)	0.016 (0.013)	-0.020 (0.015)
Federal state: German Länder	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Interview time (year)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
average predicted probability of the event (in %)	2.00	1.90	2.56	2.56	0.65	0.61	1.82	1.90	2.43	2.1
marginal effect of family satisfaction (at the mean ^a , in percentage points)	0.22***	0.13***	0.14***	0.06***	-0.06***	-0.08***	-0.38***	-0.31***	0.04	-0.05
Pseudo R ²	0.10	0.08	0.12	0.13	0.09	0.07	0.09	0.06	0.17	0.16
Number of observations	36,723	29,532	36,725	29,532	36,722	29,530	36,710	29,519	36,720	29,180

Notes. *denotes significance at the 10% level, **at the 5% level and ***at the 1% level. ^aThe mean of satisfaction with family life amounts always to about 7.6 points. Robust standard errors are in parentheses. The dependent variables are probabilities of the respective event in the next year or the year after the next.