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Don't Worry, be Flexible? – Job Satisfaction among Flexible Workers

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Abstract

This paper investigates whether workers in flexible employment relationships show lower job satisfaction than workers with permanent job contracts. Our results indicate that looking only at formal job security provided by the contract type may lead to misleading conclusions about job satisfaction. Using longitudinal data for Germany, we find that it is not the formal job security provided by the contractual agreement but rather the perceived job security that matters for job satisfaction. Moreover, there is evidence that workers value job characteristics in similar ways across fundamentally different types of job contracts.

Keywords: Job satisfaction, Temporary agency employment, Fixed-term contracts, Working condition

JEL classification: J41, J28, J81

1. Introduction

Research on the determinants of job satisfaction has increased substantially over the past decade. This heightened interest can be attributed partly to the recognition of job satisfaction as a summary measure reflecting how workers value various job characteristics (Hamermesh, 2001). However, it is still unclear whether workers in flexible employment arrangements show lower job satisfaction than those with regular contracts. This is even more surprising in light of the dramatic increase in flexible working arrangements in most European countries over recent years.

When examining the job satisfaction of workers in flexible employment arrangements, two issues are of central research interest. First, are workers in flexible employment relationships indeed less satisfied than workers with permanent contracts? If so, why do they differ? Second, do flexible workers place the same value on job characteristics than workers with permanent contracts? One might hypothesize that workers vary in their motivations for accepting diverse contractual arrangements, with the different commitments between contractual parties and different expectations about the employment relationship these arrangements entail (e.g., Bardasi and Francesconi,

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2004). Knowledge about the job characteristics valued by the flexible workforce will therefore become more and more important as national governments and the European Commission increasingly subject these employment forms to regulation.

This paper extends the existing literature on job satisfaction in a number of ways. It is the first study to comprehensively examine job satisfaction of workers in Germany employed at three different contract types, namely: temporary agency contracts, fixed-term contracts, and permanent contracts. The distinctions among these three employment relationships are important. First, the temporary employment agency is considered by law to be the employer, and therefore determines issues such as wages and terms of employment, while the user company has the right to assign tasks to the temp and to supervise his or her work. In contrast, fixed-term workers are hired directly by the employer, and their contracts are often probationary contracts that can act as stepping-stones to permanent jobs (e.g. Booth *et al*. 2002). Moreover, temporary agency and to some extent fixed-term jobs have been the subject of intense academic debate fuelled by evidence that these workers often have to accept poorer working conditions (e.g., Boeri and Garibaldi, 2009; Jahn *et al*. 2012; Houseman *et al*. 2003).

The present paper shows that distinguishing between contract types provides a more accurate picture of the relationship between job satisfaction and flexible work arrangements. In this respect, Germany is an interesting country, since flexible employment forms have increased substantially in prevalence here over the past decade. For example, the share of fixed term workers among the wage and salary employees increased from 6.1 per cent in 2001 to 9.5 per cent in 2012 (IAB, 2013).[1] During the same period the share of agency workers increased from 1.3 per cent to 3.1 per cent (e.g., Jahn and Weber, 2015).

Second, following Origo and Pagani (2010), this paper argues that looking only at the formal job security provided by the contractual agreement might be misleading. Instead, job satisfaction might be determined not only by formal or objective job security but also by subjective job security. However, Origo and Pagani (2010) are only able to distinguish temporary and permanent contracts and use cross country data. This paper goes a step further and not only distinguishes between different types of flexible employment forms but, by exploiting the panel structure of the data set, controls for unobserved heterogeneity. Controlling for individual specific baseline levels of subjective job security might be important as subjective feelings like job security might merely reflect individual traits (e.g., Börsch-Supan and Jürges, 2006; D'Addio *et al*. 2007). Thus this study should be able to identify the causal effect of the different contract types on job satisfaction. To investigate whether it is the formal or the subjective job security that matters most for job satisfaction, this study assigns to each of the contractual agreements two further categories, perceived secure contracts and perceived insecure contracts.

Finally, the paper investigates whether working conditions affect workers differently depending on their type of contract and subjective job security. Most empirical evidence on this issue is based on subjective evaluations of job dimensions

[1] Due to the dual education system in Germany, apprentices are always employed on a fixed-term basis and are not included in these figures. If apprentices are included the share of fixed-term workers in 2012 would have been about 14 per cent.

(e.g., Bruno *et al*. 2013; de Graaf-Zijl, 2012; Green and Heywood, 2011). Instead of using subjective evaluations of workplace characteristics which might be endogenous, this paper uses objective working conditions to explain job satisfaction. It thus may provide a more sophisticated understanding of how various working conditions influence flexible workers' job satisfaction.

For the empirical analysis, this paper uses the German Socio-Economic Panel (SOEP). The SOEP is very rich in terms of questions, making it possible to include a broad set of workplace controls. Moreover, it has the advantage of making it possible not only to control for time-invariant unobserved heterogeneity by exploiting the panel structure of the data but also to include numerous controls for the employment history of the workers.

The remainder of the paper is organized as follows. After a brief literature survey in section 2, section 3 gives some background information about flexible employment forms in Germany. Section 4 describes the data set and provides some descriptive results. Section 5 outlines the methodological approach. Section 6 discusses the results and section 7 concludes.

2. Previous Research

A growing number of studies have investigated the determinants and consequences of differences in individuals' reported job satisfaction. Research in psychology and sociology has emphasized that job satisfaction depends not only on the remuneration for the job but also on other workplace characteristics like career prospects, job security, job content, autonomy at work, and interpersonal relationships (De Cuyper *et al*. 2008). Most of these studies show that job security and job content are the most influential determinants when it comes to explaining job satisfaction (see, e.g., D'Addio *et al*. 2007; Kalleberg *et al*. 2000; De Cuyper *et al*. 2009 for comprehensive surveys and Wilkin, 2013, for a meta study).

One strand of this literature has focused on job satisfaction of workers with fixed-term contracts. The evidence is somewhat mixed. While some studies show insignificant differences in job satisfaction between workers in permanent jobs and those with fixed-term contracts (e.g. Bardasi and Francesconi, 2004; Boeri and Garibaldi, 2009; Buddelmeyer *et al*. 2013; D'Addio *et al*. 2007), others find significantly lower job satisfaction among fixed-term workers (Booth *et al*. 2002; Clark and Oswald, 1996; de Graaf-Zijl, 2008; Petrongolo, 2004). Using the Eurobarometer, Origo and Pagani (2010) show that in countries with generous unemployment insurance systems, fixed-term workers are not significantly less satisfied with their jobs. However, if unemployment insurance systems only provide basic insurance against unemployment, fixed-term workers are more dissatisfied. Evidence that fixed-term workers in Germany might be even more satisfied with their jobs is provided by Beckmann *et al*. (2007). These findings are contradicted by Chadi and Hetschko (2013) who find that fixed-term workers are less satisfied when taking into account that after a job change job satisfaction increases at first and drops again once the worker has settled down in the new job.

Likely due to the worldwide growth of temporary agency employment over the past years, a new strand of the literature has emerged investigating in addition job

satisfaction of temporary agency workers (Buddelmeyer *et al*. 2013; de Graaf-Zijl, 2012; Green and Heywood, 2011; Wooden and Warren, 2004). All studies indicate that agency workers are significantly less satisfied with their jobs compared to workers with other types of contracts. In Green and Heywood (2011), who investigate the job satisfaction of temporary agency workers in the UK, this effect disappears once fixed effects are introduced. The latter study also looks at satisfaction with job security as a dependent variable, and confirms the usual conjecture that workers in flexible employment arrangements feel less secure.

De Graaf-Zijl (2012), who explains job satisfaction as a composite of various dimensions of satisfaction with other workplace characteristics in the Netherlands, finds that job content and remuneration are the most important determinants of job satisfaction, while job security has only a weak negative influence on the job satisfaction of flexible workers. After controlling for various workplace characteristics, she finds that agency workers are even more satisfied than workers with other contractual arrangements. Green and Heywood (2011) to some extent confirm the results of de Graaf-Zijl (2012) for the UK, finding that after controlling for satisfaction with several different job characteristics flexible workers are more satisfied. Interestingly, they find that flexible workers are generally even more satisfied with their remuneration, working time, and work content than permanent workers. However, in contrast to the Dutch findings, they show that satisfaction with job security is the main determinant of overall job satisfaction. One possible explanation could be that flexible contracts in the UK are more 'flexible' than Dutch flexible contracts, since the unemployment insurance system is less generous and employment protection does not apply to the flexible staff. The fact that flexible contracts might even positively influence overall job satisfaction once the negative influence of job insecurity is controlled for could be consistent with the theory of equalizing differences (e.g., Smith, 1776; Rosen 1987). Wooden and Warren (2004); Buddelmeyer *et al*. (2013) and Green *et al*. (2010) compare job satisfaction of different contingent employment forms in Australia. All studies show, that (male) temporary agency workers have significantly lower level of job satisfaction compared to permanent workers, while they find no differences for workers employed on fixed-term contracts. Latter studies are able to partly explain the lower job satisfaction of agency workers by working non-standard hours.

3. Institutional Background

The paper distinguishes among three types of contracts: open-ended contracts, fixed-term contracts, and temporary agency contracts. In Germany, in contrast to many other countries, all types of employment contracts entitle workers to health insurance, pension benefits, paid vacation, and, if eligible, unemployment benefits.

Two main contractual features differentiate these contract types. First, workers with open-ended and fixed-term contracts work on the premises and under the supervision of their employers. In contrast, temporary agency work is based on a tripartite relationship among three contractual parties – temporary help agencies, temporary agency workers, and user firms – established in a commercial contract. The workers are legally employed by the agency but work on the premises of the user firm. This construct might make it more difficult for a temp agency worker to identify with the contracting employer, to become integrated into the working environment,

and to build social relationships within the firm to which he or she has been assigned. Lack of commitment to the employer and lack of social contacts might in turn reduce satisfaction with the job. As a part of the Hartz reforms, which came into effect between 2002 and 2006, temporary agency employment was subject to re-regulation efforts in 2002 and 2003. Both reforms were designed to enhance flexibility for user firms and, at the same time to increase the remuneration of temporary agency workers. At first sight it is not clear-cut whether these reforms affected job satisfaction of temporary agency workers positively or negatively. Busk *et al*. (2015) show that the change of the law in 2003 decreased agency workers' job satisfaction.

The second important difference between the three work arrangements is the formal level of employment protection. Common to all contract types is the possibility that workers can be dismissed without cause and on short notice during the six-month probationary period. Afterwards, workers with permanent contracts are protected by strict employment protection legislation (Jahn, 2009).

While by definition a permanent contract does not determine when a job will end, a fixed-term contract does. In Germany, fixed-term contracts are heavily regulated and can be prolonged only three times until the total employment duration adds up to 24 months. During the agreed duration of the contract, fixed-term workers enjoy high job security and can usually not be dismissed. In contrast to countries like Spain or France (e.g., Bentolila *et al*. 2012) fixed-term contracts only play a minor role for the flexibility of the firms. Instead, they are often used as a screening device. In 2011 for example, about 56 per cent of them were converted to permanent contracts within one year (IAB, 2012).

The higher formal job insecurity of temporary agency employment is a consequence of the fact that most client firms hire agency workers as a flexibility buffer. Once product demand slows down, agency workers are the first to be laid off. If the agency is not able to find a follow-up assignment, the worker loses the job. Agency workers are less protected for two reasons. First, the duration of employment at the temp agency is very short. The median duration of a temp job is about 12 weeks. Only about 20 per cent of agency workers are employed at the agency more than six months and thus are eligible for at least some employment protection (Antoni and Jahn, 2009). Second, temp agencies can dismiss workers for economic reasons much more easily than direct-hire employers (Jahn, 2009).

The extensive regulation of fixed-term contracts along with the strict employment protection legislation for regular contracts is seen as the main reason why it is increasingly attractive for German user firms to adjust their workforce through temporary agency work (Mitlacher, 2007).

However, despite the formal employment protection, at the microeconomic level, all types of contracts may be subject to perceived job (in)security. For example, an agency worker might feel that his or her job is secure because the agency was able to find follow-up assignments and to bridge periods without assignments, e.g., through training. Fixed-term workers might expect that their contract will lead to permanent employment as the limited duration is often used to prolong the probationary period. In this case, workers might not feel insecure. In contrast, workers with permanent contracts might feel at risk of losing their job when the demand for the employers' products declines or if they are employed at small firms, where employment protection legislation does not apply.

4. Data and Descriptive Analysis

For the empirical analysis, this paper uses the German Socio-Economic Panel (SOEP). The SOEP makes it possible to distinguish among three types of employment contracts, which represent our main variables of interest: full-time or part-time permanent contract (base category), fixed-term contract, and temporary agency contract.[2]

Since earlier waves do not contain information on whether a worker is employed in the temporary help sector, the analysis is conducted over the period 2001-2008, which covers one full business cycle and excludes the turmoil of the financial crisis.[3] The sample is restricted to wage and salary workers aged at least 18 and at most 60 in the last wave of the data. Due to the dual education system in Germany, apprentices are always employed on a fixed-term basis and are therefore dropped. Furthermore, we dropped workers employed in programs of active labour market policy, marginal workers who do not contribute to the social security system, self-employed workers, and those with missing data.[4] The final panel is unbalanced, comprising 1,258 temporary agency work spells, 3,598 fixed-term contract spells, and 53,259 employment spells with open-ended contracts. In total, 928 persons experienced at least one temporary agency spell during the observation period and 2,335 persons one fixed-term spell during their employment career.

The average share of male workers in all flexible jobs is 7.9 per cent, with 5.4 per cent in fixed-term jobs, and 2.5 per cent in agency jobs. In total, about 9.3 per cent of all women work in flexible jobs, 7.4 per cent in fixed-term jobs, and 1.9 per cent in agency jobs (see table 1).[5]

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[2] The SOEP asked whether a worker is employed at a temporary work agency for the first time in 2001. A yes to this question might also indicate that the worker was part of the temp agency staff. Starting in 2003, the SOEP refined this question and asked whether the worker is a temporary agency worker. As a robustness check, main estimations for the period 2003-2008 were performed as well. It turns out that the results do not change. The questionnaires and more detailed information about the SOEP can be found at http://www.diw.de/ and Wagner *et al*. 2007.

[3] During the economic crisis there has been a substantial drop in the number of temporary agency workers. Around 70 per cent of the total job loss during the recession was due to the mass lay-offs in the temporary help service sector. At the beginning of 2009 more than one third of the temporary agency workers had lost their jobs. In contrast to firms in all other sectors the temporary help service sector was not eligible for short-time working benefits at first. To dampen further job loss the sector became access to short-time working benefits about 12-15 months later than the remaining firms, which is the reason we exclude the years during and after the crisis.

[4] Marginal workers earn less than 450 Euros per month and are usually exempted from paying social security contribution. These jobs can be on a fixed term basis, temporary agency jobs, or regular jobs. Approximately one third of the 7.5 million marginal jobs in 2013 are held as secondary jobs, i.e. by workers who do hold in addition a regular job. However, the questions in the SOEP refer to the main job. Information on working conditions and job satisfaction for secondary marginal jobs are thus not available. Consequently we excluded these jobs from the analysis.

[5] According to official statistics, about eight per cent of the wage and salary employees (without apprentices) where employed on a fixed-term basis and three per cent at a temporary work agency in 2008. As all flexible employment contracts have experienced considerable growth during the observation period, it seems that our figures reflect the official figures accurately. As mentioned before, temporary agency contracts can be either permanent or fixed-term. We follow here the literature and define being an agency worker as a mutually exclusive employment status (e.g., Buddelmeyer *et al*. 2013).

Our dependent variable is the overall satisfaction with the present job measured on a Likert scale ranging from 0 (totally unsatisfied) to 10 (totally satisfied). Higher scores reflect higher levels of satisfaction. To measure the degree of subjective job insecurity, we used the question: 'What is your attitude towards the following areas of your life, and one subcategory is 'your job security'? Are you very concerned, somewhat concerned, or not concerned at all about these areas?' We considered a job to be insecure if workers stated that they were 'very concerned' about their job security.

A worker might perceive the job as insecure. However, if it is easy to find a comparable job at another firm, the perceived job insecurity might not strongly affect the worker's job satisfaction. In this case, despite low job security, the worker might have high employment security. In order to control for employment security, the following question was used. 'If you lose your job today, would it be easy, difficult, or almost impossible for you to find a new position that is at least as good as your current one?' If a worker answered that it would be almost impossible to find an equally good job, we considered this as low employment security.

As controls, we used the following socio-economic variables: age (three categories), whether married or not, and whether there is a child below 16 in the household. A substantial body of literature has shown that job satisfaction is strongly correlated with several mental and physical health indicators (see, Faragher *et al*. 2005 for a meta-analysis). The SOEP contains numerous questions on subjective satisfaction with health. However, it has also been shown that subjective assessments of health status are subject to a scale problem (e.g., Fischer and Sousa-Poza, 2007). We therefore included objective measures: a dummy variable indicating whether the worker has been on sick leave for more than six weeks during the past year, a dummy variable indicating whether the worker is disabled, and the number of days spent in hospital.

In addition, five educational variables, the weekly working time, job tenure, a dummy variable indicating whether the worker occasionally works overtime, and a dummy variable indicating whether the individual works as a blue-collar worker were included. Further controls are the accumulated time spent unemployed and employed (in years) since entering the labour force. As firm controls, we use a dummy indicating whether the worker is employed in a public firm and the size of the firm (four categories). The firm size variables serve as a proxy for internal promotion possibilities, training within the firm, and other workplace benefits. Moreover, workers are only covered by employment protection legislation in firms with more than ten employees. To control for the regional business cycle and other demand side factors we use the regional growth rate of the GDP per employee at the state level. Finally, a full set of time dummies is included which capture legal changes due to the Hartz reform.

There is evidence that individuals respond to well-being questions with greater variation during the first few years they are asked than persons who have already answered this questions several times before (e.g., Blanchflower and Oswald, 2011). To deal with this problem, a wave variable is included indicating how often workers have answered the question on job security before.

As controls for the working conditions, the following variables are used: a dummy indicating whether a) the worker is currently employed outside his/her profession (mismatch), b) the worker has low autonomy at work, c) the worker's

actual contractual working time is equal to his or her desired contractual working time, d) the worker is compensated for overtime either monetarily or through time off for overtime, e) the worker receives a bonus (Christmas bonus, 13th month pay, or vacation pay), and the real log hourly wage. Finally, although information about the distance in kilometres to the workplace is available, we use the information on whether the commuting distance to the workplace changed. The reason is that we assume a regularly changing distance to work might dissatisfy workers more than the actual distance itself.[6]

It is also possible that men and women differ in motivations and attitudes towards their employment status. Women might choose casual work to retain career flexibility throughout a significant portion of their working lives (e.g., Kaiser, 2004). Flexible contracts among women might therefore more often be a career choice than the result of lack of alternatives. As has been shown in previous studies, there are indeed significant differences between men and women in this respect (Booth *et al*. 2002; Clark, 1997; Sousa-Poza and Sousa-Poza, 2003). Moreover, tests within the sample reject the hypothesis of a common set of coefficients. As a result, all estimations are carried out separately for men and women.

Table 1 presents the share of workers who feel that their job is insecure, split according to contract type. About one-third of all agency workers consider their jobs insecure, while this is only true for one-quarter of those with fixed-term contracts and for about 15 per cent of those with permanent contracts.

The pattern reverses when one asks the workers about their perceived employment insecurity. Those with permanent contracts are much more worried about their employment security (21 per cent) than fixed-term employees (11 per cent) and temporary agency workers (14 per cent). This may suggest that permanent workers are likely to have more invested in firm-specific human capital, which cannot easily be transferred to other firms.

Table 1 also reports the mean job satisfaction level disaggregated by perceived job security, employment arrangement, and gender over the entire sample period. In line with the previous literature, women are on average happier with their jobs than men (Asadullah and Fernandez, 2006; Booth and van Ours, 2008; Clark, 1997). This is, as table 1 shows, particularly pronounced for agency workers. As expected, agency workers report significantly lower job satisfaction on average than do those with permanent jobs. Female temps who consider their jobs insecure are the exception: they are not significantly more dissatisfied.

As the averages and the *t*-test make clear, the job satisfaction of all workers on fixed-term contracts does not differ significantly from the job satisfaction of permanent workers. Fixed-term workers who feel that their job is insecure report even higher satisfaction levels. Beckmann *et al*. (2007) find a similar pattern based on the same dataset for 2000 for all fixed-term workers. They surmise that these workers value being employed at all more than permanent workers. In addition, they might hope to move up the job ladder and be offered a permanent job, while insecure permanent workers do not feel they have this perspective.

[6] Note that if workers state that their distance to the workplace has changed, no information on the distance in kilometers is available.

Table 1 - Job Satisfaction, Job Security, and Employment Security by Contract Type

	Agency Temp		*Fixed-term*		*Permanent*	
	Mean	*sd*	*Mean*	*sd*	*Mean*	*sd*
Share of workers by contract type (in %)						
Men	2.45		5.41		92.14	
Women	1.92		7.35		90.74	
Share of workers feeling … (in %)						
Men						
Insecure Job	**0.35**	0.48	**0.24**	0.43	0.15	0.36
Insecure Employment	**0.13**	0.34	**0.11**	0.32	0.21	0.41
Women						
Insecure Job	**0.35**	0.48	**0.29**	0.45	0.14	0.34
Insecure Employment	**0.14**	0.35	**0.10**	0.31	0.20	0.40
Mean value of job satisfaction by contract type						
Men						
All	**6.27**	2.30	6.96	2.06	7.04	1.90
Insecure Job	**5.47**	2.51	**6.43**	2.32	6.01	2.23
Secure Job	**6.71**	2.05	7.13	1.93	7.22	1.77
Women						
All	**6.74**	2.33	7.05	2.12	7.00	1.96
Insecure Job	6.42	2.43	**6.53**	2.43	6.00	2.23
Secure Job	**6.92**	2.25	7.26	1.95	7.16	1.86

Notes: Bold coefficients indicate that the *t*-tests for equality of means between permanent employment and flexible work arrangements is significant at least at the five per cent level, weights are used.

Finally, irrespective of the extent of formal employment protection provided by the job contract, workers who perceive their job as insecure report much lower job satisfaction levels. It seems that job insecurity affects job satisfaction of workers with permanent contracts and male agency workers in particular. Their job satisfaction decreases by approximately 17 per cent if they feel that they are at risk of losing their job.

Does perceived job security have consequences for the individual's future labour force status? Table 2 investigates whether subjective appraisals are correlated with what happened to the individuals who were employed in *t* one year later (*t*+1). Table 2 shows that 2.2 per cent of the individuals with secure job prospects in *t* were unemployed and 2.3 per cent were not in the labour force in *t*+1. The analogous figures are 6.8 per cent and 2.4 per cent, respectively, for those who felt their job was insecure. These figures reveal that individuals are able to judge their future employment prospects fairly accurately.[7]

[7] Table A1 in the appendix reports the remaining summary statistics of selected covariates used in the analysis.

Table 2 - Future Labour-force Status and Current Perceptions of Job Insecurity

	Employed in % (t+1)	*Unemployed in % (t+1)*	*Not in labour force in % (t+1)*
Secure job	95.44	2.24	2.32
Insecure job	90.86	6.78	2.36
Pearson chi2	461.57	$p < 0.001$	

Table 3 provides descriptive evidence on main workplace characteristics disaggregated by employment status. About 45 per cent of agency workers report that they are currently not working in the occupation for which they were trained, while this holds for only about 30 to 34 per cent of permanent workers. Flexible workers report lower autonomy at work compared to permanent workers. In general is appears that German workers are not happy with their working time. Only about one-quarter report that their contractually agreed hours are in line with their desired working hours. Women with flexible working arrangements are even less satisfied with their working time than men. Table 3 also shows that male agency workers in particular are required to be much more flexible regarding commuting behaviour.

Table 3 - Working Conditions by Contract Type, Mean

	Agency Temp		*Fixed-term*		*Permanent*	
	Men	*Women*	*Men*	*Women*	*Men*	*Women*
Mismatch	**0.45**	**0.45**	**0.39**	0.31	0.34	0.30
No autonomy at work	**0.31**	**0.27**	**0.21**	0.13	0.13	0.12
Actual ≠ desired working time	0.71	**0.77**	**0.70**	**0.77**	0.73	0.71
Changing distance to workplace	**0.11**	**0.04**	**0.04**	0.02	0.06	0.02
No compensation overtime	**0.08**	**0.07**	**0.18**	**0.13**	0.16	0.11
Bonus payments	**0.50**	**0.50**	**0.55**	**0.55**	0.76	0.77
Hourly wage	**12.84**	**11.38**	**14.22**	**12.07**	18.52	14.43

Notes: Means are reported, standard deviations are available upon request; bold coefficients indicate that the *t*-tests for equality of means between permanent employment and flexible work arrangements is significant at least at the five per cent level, weights are used.

Turning to the monetary variables, Table 3 reveals that agency workers are nearly always compensated (either through extra vacation or financially) if they work extra time. In contrast, almost 20 per cent of the male fixed-term workers do not receive any compensation. Only half of the flexible workers but about 75 per cent of the permanent workers receive an extra bonus in addition to their monthly pay check. Regarding the hourly gross wage, there are substantial differences. Agency workers are paid much less than workers on fixed-term contracts, and the latter are paid less than permanent workers. However, as Jahn and Pozzoli (2013) have shown, wage differentials between agency workers and non-agency workers are at least partly explained by the workers' own education and employment careers.

5. Methodological Approach

There is an intense discussion in the literature on the appropriate approach to evaluate the determinants of individual well-being. The choice between OLS and ordered logit models rests on whether the categories of the job satisfaction are considered cardinal or ordinal. Recently, Ferrer-i-Carbonell and Frijters (2004) and Van Praag and Ferrer-i-Carbonell (2006) tested both methods, and concluded that assuming cardinality or ordinarily in satisfaction surveys makes little difference if fixed-effects methods are used. In the following, the paper uses OLS fixed effects for three reasons. First, this approach is less data consuming compared to ordered logit fixed effects models which uses person-specific cut-off points and thus results in a heavy loss of data. Second, it has been previously shown that this method might lead to biased results (Baetschmann *et al*. 2011). Finally, the results are much easier to interpret.

By using a fixed effects specification, we are able to take into account that individuals may differ with respect to their scale feelings. Subjective feelings like job satisfaction might merely reflect their personalities, fixed psychological factors, or their social and family backgrounds which can be considered as time-invariant (e.g., Börsch-Supan and Jürges, 2006; D'Addio *et al*. 2007). This again makes a fixed effect approach a natural candidate for use, as this approach is able to take into account time-invariant unobserved heterogeneity.

In the baseline estimation, job satisfaction JS_{it} of worker i, $i=1...N$, in year t, $t=1...T$ is explained by the different contract types, where permanent employment acts as a reference category. $A_{it}(F_{it})$ is a dummy variable that is one when the worker holds an agency (fixed-term) contract and zero otherwise. β_1 and β_2 measures the impact of agency work and fixed-term employment, respectively. The vector $\mathbf{X}_{it}$ consists of the socio-economic control variables described in section 4. The baseline estimation displays the differences in job satisfaction of a worker in different contractual arrangements. However, since we did not control for differences in workplace characteristics, the difference in job satisfaction may still be a consequence of the workplace characteristics of the specific job.

In a second step, we add a set of observed workplace characteristics described by the vector $\mathbf{W}_{it}$. In the last specification, the proxies for different levels of security are included. I_{it} controls for the subjective individual job security and E_{it} for perceived employment security.

$$JS_{it} = \beta_1 A_{it} + \beta_2 F_{it} + \boldsymbol{\gamma}\mathbf{X}_{it} + \boldsymbol{\rho}\mathbf{W}_{it} + \kappa I_{it} + \eta E_{it} + \tau_t + \alpha_i + \varepsilon_{it} \quad (1)$$

τ_t is a set of dummy variables for each year in the sample period that capture the general time pattern in the economy. The individual-specific fixed effect α_i is assumed to capture unobserved time-invariant factors as ability, optimism, motivation, or social background, as well as the baseline satisfaction level. The fixed-effects estimator permits the regressors to be correlated with the time-invariant component of the error α_i, but assumes that they are uncorrelated with the idiosyncratic error ε_{it}, for which the usual properties are assumed.

So far, the model only controls for the formal job security inherent in the three contractual types. De facto job security might depend on a number of other factors, e.g., the dismissal behaviour, or the economic situation of the firm in which the worker is employed. We therefore divide the three employment contracts further according

to the perceived job security of the worker, where the indices in equation (2) describe whether the worker perceives his or her job as insecure (I) or secure (S). In this case, P_{it}^{I} is a dummy variable for a worker who is permanent employed but perceives his or her job as insecure. Workers with permanent contracts feeling their jobs are secure serve as the reference category.

$$JS_{it} = \beta_1 A_{it}^{I} + \beta_2 F_{it}^{I} + \beta_3 P_{it}^{I} + \beta_4 A_{it}^{S} + \beta_5 F_{it}^{S} + \boldsymbol{\gamma}\mathbf{X}_{it} + \boldsymbol{\rho}\mathbf{W}_{it} + \eta E_{it} + \tau_t + \alpha_i + \varepsilon_{it} \quad (2)$$

In a final step, we wanted to know whether workplace characteristics affect the job satisfaction of workers in different ways. To test this, we added to equation (2) interaction terms for the contract types with the seven workplace controls.

6. Results

Job Satisfaction by Contract Type and Perceived Job Insecurity

Table 4 reports fixed-effects estimates of the impact of flexible work arrangements on job satisfaction split by gender. For the sake of brevity, only the coefficients of the variables of interest are reported. Apart from the dummies for the contract type as controls, Model 1 includes socio-economic controls as described in section 4. Next, Model 2 also contains the seven workplace characteristics and firm characteristics, and finally, Model 3 adds the two insecurity measures to Model 2.

Table 4 - Job Satisfaction and Flexible Employment Forms, Baseline Estimations, Fixed-effects Estimations

	Men			*Women*		
	1	*2*	*3*	*1*	*2*	*3*
Agency temp	-0.374**	-0.345**	-0.299**	-0.167	-0.144	-0.073
	(0.102)	(0.101)	(0.099)	(0.127)	(0.126)	(0.125)
Fixed-term	-0.145*	-0.110	-0.064	0.066	0.076	0.144*
	(0.069)	(0.068)	(0.068)	(0.070)	(0.070)	(0.069)
Job insecurity			-0.600**			-0.626**
			(0.038)			(0.044)
Employment insecurity			-0.093**			-0.036
			(0.035)			(0.036)
Socio-economic characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Work place characteristics	No	Yes	Yes	No	Yes	Yes
Observations	31,017	31,017	31,017	27,098	27,098	27,098
Individuals	7,370	7,370	7,370	6,865	6,865	6,865
R-squared (within)	0.02	0.03	0.05	0.02	0.03	0.04

Notes: Robust standard errors in parenthesis; **, *, + indicate significance at 1%, 5% and 10% level; socio-economic, firm and work place controls as described in section 4; further controls: real regional GDP, wave, and year dummies.

Turning first to men, table 4 shows that male agency workers, irrespective of the specification, are less satisfied than the reference group of permanent workers. Interestingly, only in Model 1 are workers with fixed-term contracts less satisfied than the reference group. As soon as one controls for job characteristics, the coefficient

becomes insignificant. However, the workplace characteristics are not able to control for differences in job satisfaction between male temps and male permanent workers.[8]

The pattern for women is quite different. Surprisingly, and contrary to the existing literature, female agency workers are as satisfied as permanent female workers. It seems that the inherent flexibility of alternative work arrangements, which might allow women to combine family responsibilities with labour force participation, compensate women for the adverse working conditions that are usually present when working in a flexible employment form. Women with fixed-term contracts are even more satisfied in Model 3.

Model 3 furthermore reveals that perceived job insecurity affects workers' job satisfaction significantly. Particular fears of job loss have a strong effect, lowering job satisfaction by approximately 0.6 points for both men and women. This is in line with the finding in the literature so far (de Graaf-Zijl, 2012; Green *et al*. 2010; Origa and Pagani, 2008). Employment insecurity lowers job satisfaction for men significantly, although the effect is not very pronounced.

Since perceived employment security does not affect job satisfaction strongly, we proceed by dividing the three contact types by their perceived job security. The argument is that it is not just formal employment protection that matters, but also the perceived job security. A permanent worker might have an open-ended contract, but if the economic situation of his or her employer is weak, the job might be at risk. In table 5, the reference category is workers with permanent contracts who perceive their jobs as secure.

Table 5 - Job Satisfaction and Flexible Employment Forms Divided by Job Security, Fixed-effects Estimations

	Men			*Women*		
	1	*2*	*3*	*1*	*2*	*3*
Insecure agency temp	-1,215**	-1,182**	-1,182**	-0.642**	-0.609**	-0.610**
	(0.169)	(0.168)	(0.168)	(0.230)	(0.231)	(0.231)
Insecure fixed-term	-0.707**	-0.668**	-0.671**	-0.375**	-0.366**	-0.368**
	(0.124)	(0.122)	(0.122)	(0.128)	(0.128)	(0.128)
Insecure permanent	-0.604**	-0.588**	-0.589**	-0.661**	-0.653**	-0.654**
	(0.040)	(0.040)	(0.040)	(0.046)	(0.046)	(0.046)
Secure agency temp	-0.200+	-0.173	-0.170	-0.130	-0.110	-0.110
	(0.107)	(0.107)	(0.107)	(0.139)	(0.138)	(0.138)
Secure fixed-term	-0.101	-0.069	-0.069	0.082	0.093	0.093
	(0.074)	(0.074)	(0.074)	(0.073)	(0.073)	(0.073)
Employment insecurity			0.049			0.021
			(0.036)			(0.042)
Socio-economic characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Work place characteristics	No	Yes	Yes	No	Yes	Yes
Observations	31,017	31,017	31,017	27,098	27,098	27,098
Individuals	7,370	7,370	7,370	6,865	6,865	6,865
R-squared (within)	0.04	0.05	0.05	0.04	0.04	0.04

Notes: Robust standard errors in parenthesis; **, *, + indicate significance at 1%, 5% and 10% level; socio-economic, firm and work place controls as described in section 4; further controls: real regional GDP, wave, and year dummies.

[8] Both the socio-economic and workplace characteristics broadly conform to the signs and significances reported in numerous other studies (e.g., Beckmann *et al*. 2007; Clark and Oswald, 1996; Green and Heywood, 2011). The results for the full regressions are available upon request.

In line with the descriptive evidence in table 1, workers who perceive their jobs as insecure are always less satisfied than the workers in the reference group. Insecure male temps are least satisfied, followed by insecure fixed-term workers and permanent workers. This pattern is different for insecure women. Here the insecure permanent workers are least satisfied followed by insecure temps. A *t*-test proves that the coefficients for these two groups differ significantly. However, from an economic point of view the difference is not very pronounced. Among the insecure female workers, the difference to the reference group is lowest for women with fixed-term contracts in all specifications.

One striking result is that the job satisfaction of all workers who feel that their jobs are secure no longer differs from the job satisfaction of those with secure permanent contracts. This result highlights that it is not the formal employment protection that affects job satisfaction but the perceived job security.

The Role of Workplace Characteristics

As argued in the introduction, workers might differ in their valuation of job dimensions across contract types. Reasons could include that workers differ in their expectations about the job or their commitments to the employer. In this case, the results of Model 3 in tables 4 and 5 might be biased, since they assume that workplace characteristics affect workers' job satisfaction in similar ways. In order to test this hypothesis, we introduced interaction terms for the contract types into Model 3 with the workplace characteristics.

Table 6 shows that almost all of the workplace characteristics are significant determinants of job satisfaction. Moreover, women value certain workplace characteristics differently compared to men. However, we rarely find evidence that the contract types are affected in different ways.[9]

Turning first to the mismatch indicator, the results show that women's job satisfaction is negatively affected if they are not working in the profession for which they were trained, while this does not affect men, irrespective of the contract type. This result is somewhat contradictory to the existing literature. Green *et al*. (2010) show that working in jobs that do not allow the worker to use acquired skills greatly impacts job satisfaction of Australian men with casual contracts and fixed-term contracts. However, the use of skills does not influence the job satisfaction of Australian female flexible workers. De Graaf-Zijl (2012) finds that satisfaction with job content is one of the main job domains influencing job satisfaction in the Netherlands. This is independent of the worker's contract type. One possible explanation for the differences in the results might be that both studies rely on subjective evaluations of the job content, while the mismatch variable measures whether workers work in the profession for which they were trained.

[9] One might argue that the insignificant results in table 6 might be a consequence of a low number of observations. We therefore calculated the transition matrix for each workplace characteristic and the respective contract type. The transition matrix indicates that a low number of observations are not the reasons for the insignificant results. We also checked whether results change if we only distinguish among the three contract types and their interactions with the workplace controls. Moreover, we also ran simple OLS regressions which do not rely on workers switching the contractual status. In all cases, the results do hardly change.

Table 6 - Job Satisfaction of Flexible Workers by Workplace Characteristics, Fixed Effects Estimations

Workplace Characteristics	*Men*		*Women*	
Mismatch	-0.036	(0.045)	-0.128*	(0.055)
Insecure agency temp	-0.308	(0.356)	-0.044	(0.497)
Insecure fixed-term	-0.136	(0.274)	0.129	(0.294)
Insecure permanent	0.034	(0.078)	-0.076	(0.099)
Secure agency temp	-0.248	(0.212)	0.282	(0.302)
Secure fixed-term	0.002	(0.161)	0.047	(0.151)
Autonomy at work	-0.226**	(0.061)	-0.157	(0.116)
Insecure agency temp	0.312	(0.341)	-0.610	(0.669)
Insecure fixed-term	0.238	(0.293)	-0.014	(0.337)
Insecure permanent	0.199*	(0.098)	0.044	(0.133)
Secure agency temp	0.304	(0.269)	-0.226	(0.395)
Secure fixed-term	-0.042	(0.209)	-0.316	(0.231)
Actual ≠ desired working time	-0.069**	(0.025)	-0.115**	(0.029)
Insecure agency temp	0.232	(0.308)	0.269	(0.540)
Insecure fixed-term	-0.188	(0.230)	0.379	(0.312)
Insecure permanent	-0.087	(0.076)	-0.002	(0.084)
Secure agency temp	0.160	(0.203)	-0.226	(0.252)
Secure fixed-term	-0.131	(0.129)	-0.130	(0.124)
Changing distance workplace	0.042	(0.068)	-0.010	(0.148)
Insecure agency temp	-0.957+	(0.507)	-0.374	(0.886)
Insecure fixed-term	0.430	(0.443)	-0.296	(0.465)
Insecure permanent	-0.220	(0.148)	-0.056	(0.315)
Secure agency temp	-0.797*	(0.349)	-0.758	(0.570)
Secure fixed-term	-0.410	(0.301)	0.454	(0.475)
No compensation overtime	-0.086*	(0.044)	-0.108*	(0.052)
Insecure agency temp	-0.642+	(0.384)	0.109	(0.369)
Insecure fixed-term	-0.224*	(0.112)	-0.233+	(0.140)
Insecure permanent	-0.096	(0.275)	0.135	(0.396)
Secure agency temp	-0.157	(0.189)	-0.058	(0.196)
Secure fixed-term	-0.642+	(0.384)	0.109	(0.369)
Bonus payment	0.106**	(0.038)	0.138**	(0.044)
Insecure agency temp	0.356	(0.331)	-0.563	(0.444)
Insecure fixed-term	-0.257	(0.216)	0.305	(0.223)
Insecure permanent	0.069	(0.082)	0.048	(0.094)
Secure agency temp	0.028	(0.217)	-0.233	(0.279)
Secure fixed-term	-0.197	(0.137)	-0.062	(0.138)
Log hourly wage	0.361**	(0.064)	0.146*	(0.062)
Insecure agency temp	0.254	(0.558)	0.109	(0.405)
Insecure fixed-term	0.103	(0.327)	-0.611*	(0.305)
Insecure permanent	-0.215*	(0.097)	0.038	(0.109)
Secure agency temp	0.106	(0.197)	0.387	(0.430)
Secure fixed-term	0.003	(0.133)	-0.133	(0.152)
Contract type				
Insecure agency temp	-3.258*	(1.527)	-0.276	(1.953)
Insecure fixed-term	-0.552	(1.042)	1.034	(0.948)
Insecure permanent	-0.079	(0.338)	-0.564	(0.397)
Secure agency temp	-0.743	(0.880)	-0.885	(1.365)
Secure fixed-term	0.741	(0.538)	0.194	(0.509)
Observations	31,017		27,098	
Individuals	7,370		6,865	
R-squared (within)	0.05		0.04	

Notes: Robust standard errors in parenthesis**, *, + indicate significance at 1%, 5% and 10% level; socio-economic and firm controls as described in section 4; further controls further controls: real regional GDP, wave, and year dummies.

A variable that might be closer to the job content is the dummy measuring autonomy at work. Interestingly, low autonomy at work does not affect women's job satisfaction, while it is an important job characteristic for all men. The exception is insecure permanent workers, who barely suffer from low autonomy. It seems that autonomy at work might no longer be an important job domain if the worker fears losing a permanent job.

Dissatisfaction with working time has been proven to be an important aspect of job satisfaction (e.g., Booth and van Ours, 2008). This also holds for German workers. In contrast to Wooden and Warren (2004) and Green *et al*. (2010) the effect is independent of the employment arrangement, respectively. Female workers appear unhappier with their contractually agreed working time than men. To shed more light on this issue, we divided the variable unsatisfied with working time into two dummy variables: desiring more contractual working time, desiring less contractual working time, and having the desired working time as the omitted category. Interestingly, 56 per cent of the women would like to work more hours. However, (unreported further) regressions show that the higher coefficient for women is driven by those who wish to work fewer hours. This might be indicative of traditional gender divisions within households between career and family duties. However, it does not seem that flexible secure or insecure workers' job satisfaction is affected differently.

While changing the distance to the workplace is not an important aspect for most workers, job satisfaction of male agency workers is affected substantially. One explanation could be that agency workers are not compensated if the commuting distance to client firms change, while permanent workers might have their additional travel expenses reimbursed or even get a company car.

The number of overtime hours might affect workers' job satisfaction in different ways depending on whether they receive compensation or not. Table 6 shows that a lack of compensation indeed influences job satisfaction of all workers negatively. This effect is particularly pronounced for male insecure fixed-term workers and, albeit only significant at the ten per cent level, for male secure fixed-term and insecure agency workers. In the case of women, only female insecure fixed-term workers suffer even more if they are not compensated.

That bonus payments might influence job satisfaction of all workers positively is to be expected. However, the results do not show differences between contract types.

It is to be expected that the log hourly wage has a positive effect on job satisfaction. The impact on men's job satisfaction is much greater than on women's. This is in line with the findings of de Graaf-Zijl (2012) and Green *et al*. (2012). However, our estimations show that the effect on male insecure permanent workers is much lower. Job satisfaction of female workers on insecure fixed-term contracts is even negatively affected. De Graaf Zijl (2012) confirms that the wages of female on-call workers affect job satisfaction negatively – even that of agency workers, albeit weakly. These workers would probably be prepared to trade some of their wages for increased job security.

Finally, table 6 shows that after controlling for main workplace characteristics by contract types, only job satisfaction of male insecure agency workers is statistically significant and of negative sign. Compared to the estimates in tables 4 and 5 the

coefficient is only significant at the five per cent level but becomes much larger. This indicates that some of the job characteristics might compensate male insecure temps for a presumably adverse contract type. Moreover, there might be workplace characteristics that the study could not control for. One might be the lack of interpersonal relationships at work or self-esteem derived from the work. These latter factors might more strongly affect job satisfaction of men who are the breadwinners of the family. And indeed, Bruno *et al*. (2013) provide evidence that satisfaction with relationships with colleagues plays a much bigger role for men than for women for Italian fixed-term workers. That these factors do indeed play an important role for temporary agency workers also in Germany has been recently investigated by Gundert and Hohendanner (2014). Workers with temporary agency contracts feel that they are less integrated into the labour market and more socially excluded than workers on fixed-term and permanent contracts.

Robustness Checks

In order to check whether the results are robust, we ran several alternative specifications, see table A2. First of all, we tested whether the results are sensitive regarding the definition of perceived job and employment security. In this case, the variable job insecurity takes on the value one if the worker reported being 'very concerned' or 'somewhat concerned.' The measure for employment security changes accordingly as the answers 'difficult' and 'almost impossible' were treated as employment insecurity. Second, all estimations were performed for full-time workers only. Finally, the sample was limited to workers showing variation in contract status and so determining the coefficient for the contract status. It turns out that the results are hardly affected by the different specifications.

As a final robustness check, we also ran fixed effects P(robit)OLS regressions, as suggested by Van Praag and Ferrer-i-Carbonell *et al*. (2006), which preserve the ordered nature of the information in the fixed effects approach, see table A3. However, using POLS-FE reveals no meaningful differences in significance. To see whether unobserved heterogeneity plays a role, we ran a simple OLS regression as well. In this case, also secure male agency temps are significantly less satisfied with their jobs than individuals with secure permanent jobs, and the coefficients are much larger, indicating that the OLS results might be biased.

7. Conclusions

In order to increase labour market flexibility, most countries have gradually loosened regulations governing flexible employment arrangements during the past decades. However, critics claim that these deregulations have worsened working conditions for flexible workers. Since job satisfaction is considered to be a summary indicator for workplace characteristics, one might expect that the members of the flexible workforce are less satisfied with their jobs.

Most of the previous studies on this subject indeed show that workers on temporary contracts are less satisfied with their jobs than workers with permanent contracts.

This paper questions the assumption that differences in job satisfaction run parallel to differences between these formal contract types. It instead argues that a more appropriate distinction is based on labour market risk. Specifically, this study has shown that it is not the formal security as defined by the contract type or the working conditions alone that matter for job satisfaction but perceived job security. Once one divides the contract types by perceived job security, the job satisfaction ranking no longer clearly coincides with the contract type. Insecure temporary agency workers are much less satisfied with their jobs than workers who hold a fixed-term contract, and the latter group is less satisfied than insecure workers with a permanent contract. If one looks at workers who consider their jobs to be secure, there is no longer any difference between the formal contract types. This indicates that it is not the formal employment arrangement but the perceived job security that determines job satisfaction.

The paper moreover shows that workplace characteristics differ between contractual agreements. However, the paper could only provide little evidence that job characteristics affect workers with different employment status in different ways.

Appendix

Table A1 - Selected Sample Means by Contract Type

	Agency Temp		*Fixed-term*		*Permanent*	
	Mean	*sd*	*Mean*	*sd*	*Mean*	*sd*
Men						
Age	37.20	10.63	34.53	10.11	42.08	9.54
Child	0.34	0.47	0.34	0.47	0.43	0.50
Sick 6 weeks	0.05	0.22	0.04	0.20	0.04	0.21
Days in hospital	0.50	4.20	0.50	3.80	0.65	4.38
Low qualified	0.13	0.33	0.11	0.32	0.10	0.30
Median qualified	0.72	0.45	0.60	0.49	0.67	0.47
High qualified	0.15	0.36	0.29	0.45	0.23	0.42
Exp. unemployment (years)	1.18	2.04	0.85	1.55	0.36	1.01
Exp. Employment (years)	14.32	10.79	11.04	9.91	19.71	10.06
Hourly wage	12.84	8.73	14.22	8.49	18.52	9.18
Weekly working time	37.55	6.14	37.89	6.55	38.72	3.70
Blue-collar worker	0.65	0.48	0.42	0.49	0.41	0.49
Women						
Age	38.69	11.38	34.90	10.09	41.91	9.78
Child	0.33	0.47	0.36	0.48	0.34	0.47
Sick 6 weeks	0.06	0.23	0.03	0.16	0.05	0.21
Days in hospital	0.78	4.06	0.68	3.66	0.63	3.73
Low qualified	0.13	0.34	0.09	0.28	0.10	0.30
Median qualified	0.68	0.47	0.62	0.49	0.67	0.47
High qualified	0.19	0.39	0.30	0.46	0.23	0.42
Exp. unemployment (years)	1.05	1.77	0.90	1.66	0.46	1.22
Exp. employment (years)	13.29	10.43	10.05	8.92	17.90	9.80
Hourly wage	11.38	6.18	12.07	6.24	14.43	6.98
Weekly working time	30.73	9.89	32.07	9.49	31.95	9.06
Blue-collar worker	0.30	0.46	0.18	0.38	0.17	0.37

Notes: Weights are used.

Table A2 - Robustness Checks, Alternative Specifications

	Men			*Women*		
	Alternative Definition	*Full-time*	*Switched Contract*	*Alternative Definition*	*Full- time*	*Switched Contract*
	(1)	*(2)*	*(3)*	*(1)*	*(2)*	*(3)*
Insecure agency temp	-0.825**	-1,196**	-1,148**	-0.424**	-0.507+	-0.736**
	(0.120)	(0.169)	(0.186)	(0.152)	(0.291)	(0.248)
Insecure fixed-term	-0.474**	-0.685**	-0.661**	-0.192*	-0.475**	-0.410**
	(0.081)	(0.124)	(0.134)	(0.081)	(0.158)	(0.138)
Insecure permanent	-0.395**	-0.575**	-0.551**	-0.325**	-0.583**	-0.710**
	(0.028)	(0.040)	(0.099)	(0.031)	(0.059)	(0.121)
Secure agency temp	-0.140	-0.191+	-0.151	-0.158	-0.098	-0.071
	(0.163)	(0.109)	(0.110)	(0.210)	(0.192)	(0.142)
Secure fixed-term	-0.081	-0.074	-0.072	0.073	0.171+	0.054
	(0.103)	(0.077)	(0.076)	(0.110)	(0.098)	(0.078)
Employment insecurity	-0.112**	-0.102**	0.005	-0.065+	-0.092+	-0.079
	(0.035)	(0.035)	(0.101)	(0.036)	(0.050)	(0.103)
Observations	31,017	30,246	5,035	27,098	15,982	4,788
Individuals	7,370	7,210	1,025	6,865	4,485	1,014
R-squared (within)	0.04	0.05	0.06	0.03	0.05	0.06

Notes: Robust standard errors in parenthesis; **, *, + indicate significance at 1%, 5% and 10% level; socio-economic controls and workplace controls as described in section 4; further controls: real regional GDP, wave and year dummies.

Table A3 - Job Satisfaction and Flexible Employment Forms Divided by Job Security, Alternative Methods

	POLS-FE		*OLS*	
	Men	*Women*	*Men*	*Women*
Insecure agency temp	-0.527**	-0.302**	-1,449**	-0.692**
	(0.074)	(0.114)	(0.157)	(0.187)
Insecure fixed-term	-0.306**	-0.165**	-0.760**	-0.504**
	(0.056)	(0.060)	(0.113)	(0.100)
Insecure permanent	-0.260**	-0.293**	-1,067**	-1,026**
	(0.018)	(0.021)	(0.036)	(0.040)
Secure agency temp	-0.089+	-0.052	-0.509**	-0.103
	(0.052)	(0.068)	(0.093)	(0.115)
Secure fixed-term	-0.028	0.060	-0.109+	0.074
	(0.037)	(0.037)	(0.058)	(0.056)
Employment insecurity	-0.036*	-0.013	-0.216**	-0.077*
	(0.017)	(0.018)	(0.030)	(0.032)
Observations	31,017	27,098	31,017	27,098
Individuals	7,370	6,865		
R-squared	0.04	0.04	0.09	0.07

Notes: Robust standard errors in parenthesis; **, *, + indicate significance at 1%, 5% and 10% level; socio-economic controls and workplace controls as described in section 4; further controls: real regional GDP, wave and year dummies.

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