IAB DiscussionPaper

Beiträge zum wissenschaftlichen Dialog aus dem Institut für Arbeitsmarkt- und Berufsforschung

No. 8/2006

Are Fixed-Term Jobs Bad for your Health?
A Comparison of West-Germany and Spain

Vanessa Gash, Antje Mertens, Laura Romeu Gordo

Bundesagentur für Arbeit

Are Fixed-Term Jobs Bad for your Health?
A Comparison of West-Germany and Spain

Vanessa Gash, Antje Mertens, Laura Romeu Gordo

Auch mit seiner neuen Reihe „IAB-Discussion Paper“ will das Forschungsinstitut der Bundesagentur für Arbeit den Dialog mit der externen Wissenschaft intensivieren. Durch die rasche Verbreitung von Forschungsergebnissen über das Internet soll noch vor Drucklegung Kritik angeregt und Qualität gesichert werden.

Also with its new series "IAB Discussion Paper" the research institute of the German Federal Employment Agency wants to intensify dialogue with external science. By the rapid spreading of research results via Internet still before printing criticism shall be stimulated and quality shall be ensured.

Contents

Abstract 4

1 Introduction/Motivation 6

2 Unemployment, job insecurity and health 7
2.1 Some theoretical considerations 7
2.2 Are fixed-term contracts bad for your health? 10

3 Estimation methods and data used 11

4 Empirical analysis 13
4.1 Model specification 13
4.2 Estimation results 14

5 Conclusions 25

Bibliography 27

APPENDIX 32

Abstract

In this paper we analyse the health effects of fixed-term contract status for men and women in West-Germany and Spain using panel data. This paper asks whether changes in the employment relationship, as a result of the liberalisation of employment law, have altered the positive health effects associated with employment (Goldsmith et al. 1996, Jahoda 1982). Using information on switches between unemployment and employment by contract type we analyze whether transitions to different contracts have different health effects. We find that unemployed workers show positive health effects at job acquisition, and also find the positive effect to be smaller for workers who obtain a fixed-term job. We also establish surprising differences by gender and country, with women less likely to report positive health effects at job acquisition. For West-Germany, this was found to be a function of the dual-burden of paid and unpaid care within the home.

Key words: Temporary Employment, Unemployment, Health.

JEL: J41, J64, I10.

Correspondence:
Vanessa Gash, Max Planck Institute for Human Development, Lentzeallee 94, 14195 Berlin, Germany. E-Mail: gash@mpib-berlin.mpg.de,
Antje Mertens, Berlin School of Economics, Faculty II, Neue Bahnhofstr. 11-17, 10245 Berlin, Germany. E-Mail: antje.mertens@ba-berlin.de,
Laura Romeu Gordo, Institut für Arbeitsmarkt und Berufsforschung, Regensburger Straße 104, 90478 Nürnberg, Germany. E-Mail: laura.romeu-gordo

The authors thank Angela Rauch for her useful comments.

Primary Author Contact Details:

Vanessa Gash
Max Planck Institute
for Human Development
Lentzealle 94
14195 Berlin
Germany

Email gash@mpib-berlin.mpg.de
Direct line + 49 (0)30 82406400
Fax +49 (0)30 824 99 39

Brief Bibliographic note on each author:

Vanessa Gash is a Research Fellow at the Max Planck Institute for Human Development Berlin. She is an economic sociologist and specializes in comparative labour market research on atypical employment and female labour market integration. She is currently involved in a series of papers for the project: Employment Relationships at Risk.

Antje Mertens is Professor of Economics at the Berlin School of Economics. She received her PhD from the Humboldt University Berlin in 1998 and then worked as a researcher at the Max Planck Institute for Human Development, with which she is still associated. Her major research interests are labour mobility, wages and training.

Laura Romeu Gordo is a Research Fellow at the Institute for Employment Research (IAB) in Nürnberg. She is an economist and her research interests are labour economics, aging, and health economics. She is currently involved in a project about labour market policy evaluation.

1 Introduction / Motivation

There is considerable evidence which suggests that loosing one's job has negative psychological and physical consequences for the unemployed (Goldsmith et al. 1996; Hamilton et al. 1997, Theodossiou 1998, Romeu Gordo forthcoming). These studies underlined the social dynamics within employment which have positive implications for workers' sense of self and well-being. The employment relationship has changed considerably, however, with growing numbers of fixed-term contracts following the liberalisation of employment law in the mid-1980s. This paper examines whether the reduced job quality (Kalleberg et al. 2000, Houseman 2001, McGovern/Smeaton/Hill 2004, Gash 2004a) and reduced job security (Gash 2004a, Gash/McGinnity 2005) associated with fixed-term contracts, decreases the positive health effects of employment for the unemployed.

The past two decades have seen an increase in fixed-term employment in the majority of OECD countries. This increase has been most dramatic in Spain where one-third of all employment contracts are fixed-term while in Germany fixed-term employment rates are below the EU average of 12-13% of employment contracts (Eurostat 2002: 173). In Germany fixed-term contracts account for roughly 8 % of total employment (Rudolph 2000). Accordingly, there has been much discussion about the consequences of working in fixed-term jobs with mixed evidence for different countries. While in Spain fixed-term workers often seem to be trapped in a cycle of repeat spells of fixed-term employment and unemployment (Amuedo-Dorantes 2000, Polavieja 2003), there is less supporting evidence for Germany (Bookman/Hagen 2005, McGinnity/Mertens/Gundert 2005). We also know that fixed-term workers receive lower wages, (see e.g. Mertens/McGinnity 2004 for Germany and Jimeno/Toharia 1993 for Spain) and in many cases have fewer work related benefits (OECD 2002). Does this combination of job insecurity and poor working conditions have negative consequences on health? Might workers' experience of fixed-term employment vary in countries with different risks and opportunities for fixed-term workers?

In this paper we use information on switches between unemployment and employment by contract type to analyze these questions. We expect evidence of an improvement in the health status of unemployed workers who

obtain employment. If it is true that fixed-term contracts negatively affect health we should observe less of an improvement if the contract is fixed-term rather than permanent. One of the strengths of this research design is its provision of a comparatively homogeneous group of workers, given their shared prior experience of unemployment. This should control for some of the differences which exist between workers in different types of contract. We use data from the European Community Household Panel (ECHP) and the German Socio-Economic Panel (GSOEP) to test the impact of fixed-term contracts on health status and reveal whether differences by gender, country and duration of employment contract exist.

2 Unemployment, job insecurity and health

2.1 Some theoretical considerations

Fixed-term contract workers lose their jobs more frequently than those on permanent contracts simply because their contracts run out within very short periods of usually one to two years. This job loss often results in unemployment (after one year around 13 % of fixed-term workers become unemployed in Germany and 20 % in Spain[1]), which usually causes a deterioration of general health indicators and self-reported health status (see e.g. Schwefel 1986, Kasl/Jones 1998, Murphy/Athanasou 1999). Why do we observe this close link between unemployment and health? In addition to the financial difficulties the unemployed face[2], the unemployed loose many of the latent functions employment provides which are important to individual well-being (Jahoda 1982). Employment is seen to provide a structure to one's day, regular contact with others, as well as a sense of self-worth. Not only does unemployment deprive people of these functions, unemployment also implies skill attrition and a loss of or decrease in one's social status (Warr 1987).

We also expect fixed-term contract workers to be disproportionately affected by job insecurity, which is also thought to affect health status. One

---

1 Own estimations of ECHP data, cross-sectional analysis of the labour force status of all fixed-term contract workers in 1995 by their labour force status in 1996, weighted data.

2 Previous work has revealed the extreme psychological strain the unemployed face as a result of the decrease in their financial status (Pearlin 1989, Whelan 1992).

much cited study by Ferrie et al. (1995) shows that self-reported health status deteriorates when employees expect privatization and the accompanying job change or job loss. Crucially, this relative decline in health status was shown not to be linked with changes in health related behaviour. Burchell (1994, 1999) as well as Bohle et al. (2001) argue that job insecurity has obvious negative effects on physical and psychological well-being.[3] The estimated reduction in psychological well-being is very similar in magnitude to that caused by unemployment. One explanation for this could be the inability of fixed-term contract workers to plan and control their lives given the short-term nature of their jobs (Burchell 1994). Therefore, although a fixed-term job fulfils many of the conditions that Jahoda (1982) and Warr (1987) associated with employment it might still have negative health effects as a result of the twin pressures of job insecurity and unemployment risk.

In addition to these twin pressures of job insecurity and unemployment risk there may also be stresses linked to the comparatively poor job quality of some fixed-term jobs. Fixed-term jobs are sometimes (not always) connected with relatively low pay (Mertens/McGinnity 2004, Mertens/ Gash/McGinnity 2005, Gash/McGinnity 2005), poor working conditions (Gash 2004a) and reduced access to benefits (Houseman 2001, McGovern/ Smeaton/Hill 2004). We anticipate this combination of relatively high job insecurity and lower job status to have implications for psychological health and health status.

The paper presents a comparative analysis of the health outcomes of contract type for men and women as we expect differences by gender and country. We expect women to be more likely to self-actualise in unpaid care work than men and expect this to protect them from some of the negative consequences of unemployment (Gallie/Russell 1998; Romeu Gordo forthcoming).This is especially likely in the two countries under consideration with relatively low female participation rates of just over 60 % in Germany and roughly 50 % in Spain.

---

[3] Bohle et al. (2001) gives a very good overview of nearly seventy studies looking at health and safety effects of job insecurity conducted since 1966.

Finally, we expect country differences as a result of the following: the different levels of unemployment, the different size of the fixed-term employment sector, the different opportunity structures fixed-term workers have and differing cultural attitudes to unemployment.

While both countries suffer from high unemployment rates, Spanish unemployment rates have been considerably higher and also differ considerably in their composition, with Spanish women experiencing very high unemployment rates relative to Spanish men. It could be argued that higher levels of unemployment will decrease the stigma associated with unemployment, with stigma less likely if higher proportions of ones social network face a similar situation (Clark 2003). There is also the suggestion that when the possibility of obtaining employment is very low, i.e. in situations of high and long-term unemployment, people may decide to "reject" the role paid employment has in ones life (Gallie/Russell 1998). If this is the case we can expect Spanish women to be the least likely to exhibit positive changes in health status on entry to paid employment, if paid employment is no longer central to how they evaluate themselves.

There are differences between both countries in the proportion of workers on fixed-term contracts. In Spain, where one third of the workforce is a fixed-term contract worker, acceptance of these jobs might be higher than in Germany where just under ten percent of workers have fixed-term contracts. Because fixed-term contracts are more "abnormal" in Germany we could expect a greater stigma associated with being a fixed-term contract worker in Germany and this might make them marginally more stressful. However, the different opportunity structures each country provides for fixed-term contract workers is also likely to influence the stresses workers have on the job. Spanish research suggests that fixed-term work is of poor quality (Amuedo-Dorantes 2000, Jimeno/Toharia 1993) and that fixed-term contract workers find it difficult to obtain permanent positions (Polavieja 2003). In Germany, the evidence is certainly more mixed. While there is also a wage penalty associated with fixed-term employment in Germany, it is not as large as the Spanish wage penalty and is also to some extent compensated for by higher wage growth (Mertens/Gash/McGinnity 2005). There is also less evidence of fixed-term employment being a "trap" in Germany (Boockmann/Hagen 2005), with the long-term

repercussions of fixed-term employment found to decrease with time (McGinnity/Mertens/Gundert 2005).

Finally, we could also expect differences in the German and the Spanish work ethic to influence their response to both employment and unemployment. This assumption is based on research which suggested that the Spanish unemployed suffer less from unemployment as a result of their lower work ethic (Marsh/Alvaro 1990).

Before we analyse the health effect of fixed-term employment we provide a review of the literature in the next section.

2.2 Are fixed-term contracts bad for your health?

There are few studies which analyse the direct health effects of fixed-term contracts and those that do have used a variety of health measures. For our purposes we will summarize the results into psychological and physical health effects.

We have argued that psychological well-being will be negatively affected by fixed-term employment, with these contracts considered stressful. Klein Hesselink and van Vuuren (1999), using Dutch data, confirm this assumption reporting that roughly 44 % of fixed-term workers are worried about job insecurity, while only 15.5 % of permanent contract workers worry about insecurity. Similarly, Lasfargues et al. (1999) find evidence of lower psychological well-being amongst temporary workers in France. Nonetheless, fixed-term contract work is unlikely to have the same impact on all workers, as Bauer and Truxillo (2000) argue. Individual characteristics like tolerance for ambiguity and self-monitoring influence responses to stress and the selection process into permanent employment. Not all studies looking at psychological factors confirm our assumptions however. Benavides et al. (2000), in a cross sectional study of 15 European countries, show that non-permanent employees tend to report lower work stress. Similarly, Sverke et al. (2000) report that fixed-term work has no effect on psychological well-being and, likewise, Artazcoz et al. (2005), in a Spanish health survey, find no association between fixed-term contracts and poor mental health.

The literature on physical health is even more ambiguous. While Benavides et al. (2000) find fixed-term workers to have worse physical health than permanent workers and Klein Hesselink and Van Vuuren (1999) report slightly higher percentages of fixed-term workers with physical health complaints, other researchers have found fixed-term contract workers to have better health. Virtanen et al. (2002 and 2003) show that non-permanent employees in Finland report better health. Similarly, Sverke et al. (2000) find fixed-term contract workers to have better physical health in comparison with permanent workers. Fixed-term workers are sometimes reported to have lower rates of absenteeism than permanent workers (Benavides 2000, Virtanen 2003). Rates of sickness absence even tend to increase when employees move from fixed-term to permanent jobs. It is very unlikely, however, that this is caused by a real deterioration in health. It rather shows that fixed-term workers try to reduce absenteeism due to fears of job loss. Once in a permanent position this fear is reduced.

Finally, there are two papers on the topic which come closest to our research design. Strandh (2000) looks at the impact of different exit routes from unemployment on mental health in Sweden. He finds that mental health improves for unemployed workers who leave unemployment to either education or employment. He also finds that atypical workers, the self-employed and temporary workers, show less improvement in their mental health than permanent workers. Virtanen et al. (2003) also look at the impact of workers transitions on physical health and sickness absence in Finland. However, their study is based on only those working in two hospital districts and the number of switchers is very small. They find no change in health indicators when workers move from fixed-term to permanent jobs.

Our empirical study described in the following sections adds to the literature on the health consequences of fixed-term workers by examining the consequences of workers transitions from unemployment to employment on their health status.

3 Estimation methods and data used

For our study we use Spanish data from 1994 to 2001 from the European Community Household Panel (ECHP) and the German Socioeconomic Panel

waves 1994 to 2004 for West Germany (Schupp/Wagner 1995). The ECHP provides full information on contract type from 1995 and the GSOEP from 1994 onwards.[4] The panel component of both datasets allows us to analyse the impact of labour market transitions on changes in health status.[5] By focusing on unemployed workers we reduce the problem of heterogeneity that comes with a comparison of fixed-term and permanent workers.

For our purposes we follow unemployed workers and compare their health status in at least one consecutive years, excluding respondents with less than two years complete information on our covariates of interest. Moreover, the sample is limited to those aged between 20 and 54 years of age, with those aged over 55 years more likely to have lower health status as a result of increasing morbidity.

We analyze the effect of different labour transitions on changes in health status for men and women separately using the following basic OLS model:

$$\Delta \text{health} = \beta_0 + \beta_1 \text{newtemp} + \beta_2 \text{newperm} + \beta_3 X + \varepsilon .$$

Changes in health are measured by self-defined health status.[6] This change is regressed on a constant, a set of control variables collected in matrix X and dummy variables indicating new temporary (newtemp) or perma-

---

[4] We cannot identify agency workers at any point in both surveys. Agency workers may or may not classify themselves as on a fixed-term contract. While agency work has risen steadily in Germany in the last decade, it was still only 1.2 % of dependent employment in June 2000 (Bundesanstalt für Arbeit 2001). Similarly Spain agency work accounts for approximately 0.8 % of total employment (Storrie 2002). Hence, we do not expect it to bias our results.

[5] Caution is required when using self-reported health measures in cross-cultural studies (Jürges 2005) with different meanings attached to different response categories. For example, category 4 of our self-reported health status variable is “malo” in the Spanish questionnaire and “weniger gut” in the German questionnaire. However, “weniger gut”, which means a little less than good, has a more positive connotation than “malo”, which means bad. While these differences might affect a comparison of *levels* of health by country, our analysis removes this risk by looking at *changes* in health status.

[6] Both the ECHP and the GSOEP determine health status by asking respondents: “How is your health in general?”, with 1=”Very good” and 5=”Very Bad”, resulting in a health change variable with nine different categories. We reverse code health status so that decreases in health status are represented by negative coefficients in the models. It should be noted that there is a strong correlation between subjectively defined health status and objective criterion (Table A1 in the appendix).

nent (newperm) jobs with no new job being the reference category. In X we include socioeconomic control variables like gender, age and education, as well as the health status of the respondent in t-1. Health status in the year prior is expected to have a negative impact on current health status, with strong ceiling effects associated with this variable i.e. respondents with good to very good health are less likely to report improvements as the scale does not go any higher. Finally, we control for potentially stressful life events: marriage, divorce, separation, individuals moving into the family home, birth of a child, individuals leave the family home and someone dies in the family home. To test whether unobserved individual heterogeneity influences our results, we compare OLS estimates with those from a random effects regression.[7]

4 Empirical analysis

4.1 Model specification

To test the effect of labour market transitions on self-reported health status we estimate two models: one looking at the short-run immediate implications (Model 1) and another one looking at longer run consequences (Model 2).

Model 1: We first select individuals who are unemployed in t-1 and consider three possible labour transitions in the following year: (i) the individual remains unemployed; (ii) the individual gets a permanent contract; (iii) the individual gets a fixed-term contract.

Model 2: In the first period (t-2) all individuals are unemployed. We then consider three different transitions in the labour market: (i) the individual remains without work till t; (ii) the individual finds a job with a fixed-term contract in the first period (between t-2 and t-1) and remains employed till t; (iii) the individual finds a job with a permanent contract in the first period (between t-2 and t-1) and remain employed till t. The objective in model 2 is to determine the long-term health implications of obtaining a fixed-term contract, with any positive effect of job gain expected to de-

[7] We decided to use random effect estimators after carry out a Hausman test, which revealed that GLS was the most efficient estimator.

crease if the worker becomes aware of reduced opportunities associated with their contract type[8].

4.2 Estimation results

Model 1

Tables 1 and 2 present the basic results for men and women. We find that for German men transitions from unemployment into employment have a significant and positive effect on health status for both fixed-term and permanent workers. Similarly, in Spain transitions from unemployment into employment have a significant and positive effect on health status for both types of contract but for Spain the effect of permanent employment is significantly larger than that of a fixed-term contract[9]. So for Spanish men we can conclude that fixed-term contracts are significantly worse for your health.

For German women, on the other hand, we only find positive effects on health status if the contract is permanent. The transition from unemployment to a fixed-term contract has no significant effect on females' health. Surprisingly, health status of Spanish women does not change in either case.

---

[8] By looking only at this selection of transitions from unemployment we lose 64 % of all observations in Spain and 58 % in Germany. The modal category of excluded respondents for both samples consist of those without complete information on labor force status for three years in a row. For those with complete information the modal categories for our German sample, accounting for 27 % of the sample, are those who leave unemployment for employment in t-1 and then re-enter unemployment in t and those who remain unemployed for two years and then enter employment in t. For Spain the corresponding figure is 26 %.To test whether our emphasis on three very specific transitions lead to biased results we introduce a dummy variable which includes all other possible transitions to the model. Our results were found to be consistent after introducing this dummy variable.

[9] We conducted nested t-tests to establish whether the difference in the size of the coefficients by contract type was statistically different. The difference is significant at the .05 level for Spain, but is not for Germany.

Table 1: Effect of different labour transitions on changes in health status - Men

Changes in Health Status	West-German Men		Spanish Men	
	(1)	(2)	(1)	(2)
(No new job)	-	-	-	-
New job with fixed-term contract	0,164***	0,170***	0,085**	0,080**
	(0,059)	(0,059)	(0,031)	(0,031)
New job with permanent contract	0,201***	0,205***	0,183***	0,168***
	(0,050)	(0,051)	(0,053)	(0,053)
Age	-0,187***	-0,185***	-0,010	-0,012
	(0,051)	(0,055)	(0,008)	(0,009)
Age*Age	-0,427***	-0,494***	-0,027	-0,064
	(0,054)	(0,061)	(0,278)	(0,313)
Health status in t-1	-0,465***	-0,551***	-0,651***	-0,770***
	(0,020)	(0,021)	(0,019)	(0,020)
(Less than Second Level Education, ISCED 0-2)	-	-	-	-
Second Level Education (ISCED 3)	-0,102**	-0,115**	0,088*	0,124**
	(0,043)	(0,049)	(0,046)	(0,050)
Third level Education (ISCED 5-7)	0,111	0,103	0,085**	0,081*
	(0,077)	(0,085)	(0,038)	(0,041)
Number of children in the household in t-1 (=1)	0,034	0,030	0,002	0,005
	(0,042)	(0,047)	(0,015)	(0,018)
Marriage (=1)	-0,173	-0,105	0,091	0,079
	(0,152)	(0,152)	(0,134)	(0,132)
Household members move in (=1)	-0,017	-0,005	-0,068	-0,072
	(0,124)	(0,125)	(0,046)	(0,045)
Children born in House-hold (=1)	0,022	0,051	0,101	0,096
	(0,101)	(0,102)	(0,086)	(0,084)
Household member move out (=1)	-0,172	-0,191	-0,031	-0,027
	(0,138)	(0,137)	(0,032)	(0,032)
Divorce (=1)	0,172	0,159	.	.
	(0,130)	(0,132)		
Separation from partner (=1)	-0,233	-0,290	-0,089	-0,141
	(0,239)	(0,239)	(0,307)	(0,307)
Death in Household (=1)	-1,775**	-1,756**	0,087	0,094
	(0,786)	(0,805)	(0,097)	(0,096)
Constant	1,698***	2,019***	2,946***	3,615***
	(0,085)	(0,093)	(0,697)	(0,782)
	N=1530	N=1530 Groups=645	N=2410	N=2410 Groups=1373
	F=37.45***	Wald chi2=687.23***	F=36.10***	Wald chi2=1550.35***
	Adj R-sq=0.263	R-sq=0.270	Adj R-sq=0.325	R-sq=0.328
New job fixed-term =new job permanent	F=0.34 Prob>F=0.561	chi2=0.28 Prob>chi2=0.594	F = 3.17* Prob>F=0.075	chi2=2.55 Prob>chi2=0.110

*p<0.1, **p<0.05, ***p<0.01. Standard Errors in parenthesis.

(1) OLS estimation.

(2) Random effects estimation.

Table 2: Effect of different labour transitions on changes in health status - Women

Changes in Health Status	West-German Women		Spanish Women	
	(1)	(2)	(1)	(2)
(No new job)	-	-	-	-
New job with fixed-term contract	0,097	0,098	-0,052	-0,051
	(0,075)	(0,076)	(0,037)	(0,037)
New job with permanent contract	0,245***	0,245***	0,075	0,074
	(0,066)	(0,067)	(0,067)	(0,068)
	-	-	-	-
Age	-0,185***	-0,190***	-0,039***	-0,043***
	(0,064)	(0,065)	(0,011)	(0,011)
Age*Age	-0,392***	-0,400***	0,807**	0,875**
	(0,067)	(0,069)	(0,344)	(0,370)
Health status in t-1	-0,503***	-0,523***	-0,680***	-0,743***
	(0,025)	(0,025)	(0,023)	(0,023)
(Less than Second Level Education, ISCED 0-2)	-	-	-	-
Second Level Education (ISCED 3)	0,088*	0,087	0,028	0,029
	(0,052)	(0,053)	(0,041)	(0,044)
Third level Education (ISCED 5-7)	0,141	0,148	-0,027	-0,012
	(0,090)	(0,092)	(0,040)	(0,042)
Number of children in the household in t-1 (=1)	0,069	0,067	-0,010	-0,009
	(0,053)	(0,055)	(0,020)	(0,021)
Marriage (=1)	0,356**	0,353**	-0,012	-0,018
	(0,154)	(0,155)	(0,106)	(0,106)
Household members move in (=1)	-0,052	-0,053	0,002	0,004
	(0,122)	(0,123)	(0,036)	(0,036)
Children born in House-hold (=1)	0,149	0,132	0,067	0,062
	(0,270)	(0,270)	(0,094)	(0,094)
Household member move out (=1)	0,003	0,003	0,031	0,034
	(0,117)	(0,118)	(0,045)	(0,045)
Divorce (=1)	-0,073	-0,073	-0,407	-0,437
	(0,161)	(0,162)	(0,471)	(0,473)
Separation from partner (=1)	0,038	0,036	-0,304	-0,306
	(0,218)	(0,219)	(0,250)	(0,250)
Death in Household (=1)	-0,262	-0,301	0,067	0,043
	(0,462)	(0,462)	(0,119)	(0,119)
Constant	1,630***	1,701***	1,232	1,376
	(0,104)	(0,107)	(0,842)	(0,903)
	N=1104	N=1104 Groups=639	N=1801	N=1801 Groups=1052
	F=29.04***	Wald chi2=455.49***	F=60.52***	Wald chi2=1034.91***
	Adj R-sq=0.276	R-sq=0.286	Adj R-sq=0.332	R-sq=0.337
New job fixed-term =new job permanent	F=2.83* Prob>F=0.0926	chi2=2.76 Prob> chi2=0.097	F =3.14* Prob>F=0.076	chi2=3.04* Prob> chi2=0.082

*p<0.1, **p<0.05, ***p<0.01. Standard Errors in parenthesis.

(1) OLS estimation.

(2) Random effects estimation.

Now, it is possible that our results are biased because individuals with low levels of health are less likely to obtain a job, and/or to be less successful at obtaining a job with a permanent contract. Therefore, we estimate the same models homogenising the reported level of health in t-1. We select individuals whose reported health status in t-1 was at least 3 that is those with fair to very good health status. In Germany approximately 11 % of individuals report health status lower than 3, while in Spain the figure is 4 %. These individuals tend to have serious health problems, which are most likely to impact negatively on their labour market success. This is corroborated by comparing objective health measures for individuals who report health status lower than 3 with individuals whose reported health is at least 3 (see Table A1 in the appendix). We control for the possible health selection effect for Model 1 in tables 3 and 4. While the results for German women don't change, they do change for Spanish women. After health selection, transitions into fixed-term jobs have a significant and negative effect on health status. The results do change for German men. Once we remove individuals with very low health status from our sample, we no longer find a positive relationship between health status and receipt of a fixed-term job. This result suggests that individuals with low health status are more likely to obtain fixed-term contracts, and that they derive a positive effect of obtaining employment. For Spanish men, the positive effect of transitions into fixed-term employment remains even after selecting on health and the difference between contract type remains significant. This may be due to the fact that fixed-term employment is more widespread in Spain so that health selectivity into fixed-term employment is less of an issue; with many individuals independently of their level of health likely to become fixed-term contract workers.

Table 3: Effect of different labour transitions on changes in health status – Men
Only individuals with fair to good health status in t-1

Changes in Health Status	West-German Men		Spanish Men	
	(1)	(2)	(1)	(2)
(No new job)	-	-	-	-
New job with fixed-term contract	0,081	0,083	0,082***	0,074**
	(0,062)	(0,062)	(0,031)	(0,031)
New job with permanent contract	0,121**	0,119**	0,175***	0,152***
	(0,051)	(0,052)	(0,053)	(0,053)
Age	-0,161***	-0,160***	-0,011	-0,013
	(0,055)	(0,059)	(0,008)	(0,009)
Age*Age	-0,412***	-0,488***	-0,006	-0,062
	(0,060)	(0,069)	(0,282)	(0,325)
Health status in t-1	-0,550***	-0,669***	-0,685***	-0,831***
	(0,033)	(0,035)	(0,023)	(0,023)
(Less than Second Level Education, ISCED 0-2)	-	-	-	-
Second Level Education (ISCED 3)	-0,101**	-0,122**	0,080*	0,129**
	(0,047)	(0,054)	(0,045)	(0,051)
Third level Education (ISCED 5-7)	0,131	0,115	0,069*	0,066
	(0,081)	(0,090)	(0,038)	(0,042)
Number of children in the household in t-1 (=1)	-0,014	-0,026	-0,010	-0,005
	(0,046)	(0,052)	(0,016)	(0,018)
Marriage (=1)	-0,093	-0,031	0,095	0,075
	(0,165)	(0,164)	(0,131)	(0,129)
Household members move in (=1)	-0,073	-0,069	-0,067	-0,057
	(0,131)	(0,133)	(0,047)	(0,046)
Children born in House-hold (=1)	0,071	0,071	0,107	0,099
	(0,106)	(0,105)	(0,085)	(0,083)
Household member move out (=1)	-0,185	-0,191	-0,027	-0,023
	(0,160)	(0,155)	(0,032)	(0,032)
Divorce (=1)	0,010	0,013	.	.
	(0,144)	(0,146)		
Separation from partner (=1)	-0,437	-0,475*	-0,099	-0,177
	(0,269)	(0,269)	(0,303)	(0,301)
Death in Household (=1)	-1,933***	-1,956**	0,128	0,145
	(0,752)	(0,773)	(0,098)	(0,095)
Constant	2,096***	2,572***	3,046***	3,896***
	(0,141)	(0,149)	(0,710)	(0,813)
	N=1203	N=1203 Groups=716	N=2303	N=2303 Groups=1339
	F=20.24***	Wald chi2=402.66***	F=66.09***	Wald chi2=1317.30***
	Adj R-sq=0.1936	R-sq=0.2029	Adj R-sq=0.284	R-sq=0.2871
New job fixed-term =new job permanent	F =0.35 Prob>F=0.5539	chi2=0.29 Prob> chi2=0.5875	F =2.92* Prob>F=0.0879	chi2=2.00 Prob> chi2=0.1572

*p<0.1, **p<0.05, ***p<0.01. Standard Errors in parenthesis.

(1) OLS estimation.

(2) Random effects estimation.

Table 4: Effect of different labour transitions on changes in health status - Women. Only individuals with fair to good health status in t-1

Changes in Health Status	West-German Women		Spanish Women	
	(1)	(2)	(1)	(2)
(No new job)	-	-	-	-
New job with fixed-term contract	0,033	0,038	-0,073**	-0,075**
	(0,081)	(0,083)	(0,036)	(0,037)
New job with permanent contract	0,197***	0,193***	0,060	0,053
	(0,073)	(0,074)	(0,066)	(0,066)
Age	-0,212***	-0,256***	-0,035***	-0,039***
	(0,069)	(0,077)	(0,011)	(0,012)
Age*Age	-0,454***	-0,491***	0,691**	0,749**
	(0,077)	(0,087)	(0,343)	(0,377)
Health status in t-1	-0,548***	-0,661***	-0,758***	-0,842***
	(0,042)	(0,043)	(0,026)	(0,026)
(Less than Second Level Education, ISCED 0-2)	-	-	-	-
Second Level Education (ISCED 3)	0,100*	0,100	0,037	0,038
	(0,059)	(0,067)	(0,040)	(0,044)
Third level Education (ISCED 5-7)	0,062	0,105	-0,010	0,013
	(0,098)	(0,109)	(0,039)	(0,042)
Number of children in the household in t-1 (=1)	0,036	0,035	-0,015	-0,014
	(0,061)	(0,067)	(0,019)	(0,021)
Marriage (=1)	0,324*	0,382**	-0,012	-0,024
	(0,176)	(0,179)	(0,102)	(0,102)
Household members move in (=1)	-0,095	-0,098	0,016	0,020
	(0,134)	(0,136)	(0,036)	(0,036)
Children born in House-hold (=1)	0,182	0,133	0,062	0,050
	(0,320)	(0,314)	(0,092)	(0,091)
Household member move out (=1)	-0,062	-0,089	0,034	0,037
	(0,137)	(0,141)	(0,045)	(0,044)
Divorce (=1)	-0,078	-0,076	-0,445	-0,487
	(0,169)	(0,170)	(0,456)	(0,457)
Separation from partner (=1)	0,003	0,028	-0,187	-0,181
	(0,240)	(0,239)	(0,261)	(0,259)
Death in Household (=1)	0,126	0,086	0,106	0,076
	(0,772)	(0,797)	(0,117)	(0,117)
Constant	1,871***	2,288***	1,832**	2,089**
	(0,177)	(0,187)	(0,842)	(0,923)
	N=801	N=801 Groups=513	N=1746	N=1746 Groups=1027
	F=12.73***	Wald chi2=252.47***	F=57.28***	Wald chi2=1034.06***
	Adj R-sq=0.1803	R-sq=0.1944	Adj R-sq=0.326	R-sq=0.332
New job fixed-term =new job permanent	F=3.01 Prob>F=0.083*	chi2=2.62 Prob> chi2=0.1056	F=3.62* Prob>F=0.057	chi2=3.36 Prob> chi2=0.067

*p<0.1, **p<0.05, ***p<0.01. Standard Errors in parenthesis.

(1) OLS estimation.

(2) Random effects estimation.

Summarising, we have found that job acquisition improves health status. We have also found contract type to play an important role in health status with workers who obtain a fixed-term contract exhibiting smaller increases in health status, though it is only statistically significant in Spain. We have also found women to exhibit different tendencies to men. For German and Spanish women fixed-term contracts have no effect on health status (with or without health selection). One of the possible explanations of this result is that since women engage in a disproportionate amount of unpaid work within the home, they are less likely to exhibit positive health status change on the receipt of paid employment, if they are already engaged in unpaid work within the home. It might be, in fact, that the positive effect of job receipt is cancelled out by the stressful effects of the double-burden of paid and unpaid work. In order to analyse this question, we test whether the non-significance of the female result is driven by women who are engaged in intensive unpaid childcare duties within the home. Table A2 in the appendix presents the mean hours spent per day in unpaid childcare within the home and while we find full-time working women to have slightly lower levels of unpaid care the average hours spent are still very high, with German women spending 4 hours per day and Spanish women spending 7 hours per day in childcare.[10]

We test the impact of childcare on health status by comparing the results of women who at t-1 were engaged in intensive child care (more than four hours per day) and women whose' child care load was lower (results not shown). In Germany women who were engaged in intensive childcare and obtain a job don't experience any significant effect on health (irrespective of contract type). However, women who were carrying out less hours of childcare experience a significant and positive effect of obtaining a permanent job. We carried out the same analysis for Spanish women; though

[10] These figures are not directly comparable however, as the GSOEP data asks respondents how many hours they spent *per working day* whilst the ECHP asks the number of hours *per week*. This distinction is important as there tend to be considerable differences in the number of hours spent in care and household work on the weekend relative to the week.

found no significant differences between mothers with high and low child care hours.[11]

We also tried to identify fixed-term contract worker heterogeneity by looking at interaction terms of contract type by occupational skill level[12], education and age. These analyses were not found to be significant, however.

Model 2

From Model 1 we know that getting a job is good for your health, but that getting a permanent job is better. We would now like to know whether the positive effect on health remains once individuals have accommodated to their new status. For instance, we could expect fixed-term workers' health to deteriorate if they believe that their contract will not be renewed nor converted into a permanent contract.

In the analysis that follows, the dependent variable measures changes in health status between t-2 and t. We analyse the effect on health of getting a job between t-2 and t-1 and remaining in this job till t. Again, we distinguish between becoming a fixed-term and a permanent worker but now analyse the effect on health when individuals remain in their job for more than one year. In table 5 the estimation results for German and Spanish men are presented. We observe that for German men there is still a positive effect on health of obtaining a fixed-term job even if the individual remains in fixed-term employment for more than one year. However, for Spanish men, the positive effect of obtaining a fixed-term job disappears after one year in fixed-term employment. This may be a function of worker's stresses concerning their future unemployment risk given

[11] While we had thought we could attribute the non-significance of the analysis for Spanish women to their disproportionate investment in housework relative to Spanish men (Ahn et al. 2003). For instance, Ahn et al. (2003) and Álvarez and Miles (2003) find that the majority of domestic work is carried out by women whether they have a job or not, and independently of the type of job. The evidence suggests that West-German women also do considerably more housework than men. In West-Germany women tend to do twice as much housework as German men, 35 hours a week versus 17 hours a week (Rosenfeld/Trappe/Gornick 2004: 119-120) while in Spain married women do 35 hours and married men do 4.5 hours a week (Ahn et al. 2003: 29).While Spanish women undoubtedly appear to have considerably less help from their partners than German women do, women in both countries none the less engage in similar amounts of unpaid work within the home.

[12] Distinguishing between trained and untrained blue collar workers, trained and untrained white collar workers and high qualified professionals.

the short-term nature of their contracts. So while initially workers exhibit an increase in health status on job acquisition, this effect disappears with time, perhaps when they learn that their job is unlikely to lead to further employment. Table 6 presents the analysis for women where we find that the positive effect of permanent employment remains significant for the random effects estimation for German women.

Table 5: Effect of the duration of fixed-term contract on health status - Men

Changes in Health Status (t-2 /t)	West-German Men		Spanish Men	
	(1)	(2)	(1)	(2)
(No new job)	-	-	-	-
New job with fixed-term contract	0,262**	0,288**	0,077	0,079
	(0,117)	(0,119)	(0,047)	(0,049)
New job with permanent contract	0,227***	0,242***	0,159**	0,138*
	(0,076)	(0,079)	(0,076)	(0,077)
Age	-0,253***	-0,240***	-0,351	-0,410
	(0,080)	(0,083)	(0,419)	(0,461)
Age*Age	-0,373***	-0,416***	-0,004	-0,004
	(0,087)	(0,093)	(0,012)	(0,013)
Health status in t-1	-0,473***	-0,529***	-0,709***	-0,806***
	(0,032)	(0,034)	(0,029)	(0,029)
(Less than Second Level Education, ISCED 0-2)	-	-	-	-
Second Level Education (ISCED 3)	-0,124*	-0,144*	0,011	-0,007
	(0,070)	(0,076)	(0,081)	(0,085)
Third level Education (ISCED 5-7)	0,174	0,138	-0,010	-0,046
	(0,118)	(0,125)	(0,071)	(0,076)
Number of children in the household in t-1 (=1)	0,086	0,087	0,015	0,023
	(0,068)	(0,073)	(0,023)	(0,026)
Marriage (=1)	-0,294*	-0,286*	0,109	0,069
	(0,169)	(0,171)	(0,212)	(0,207)
Household members move in (=1)	0,106	0,099	-0,090	-0,039
	(0,136)	(0,137)	(0,067)	(0,065)
Children born in House-hold (=1)	0,021	0,026	0,122	0,128
	(0,122)	(0,123)	(0,130)	(0,125)
Household member move out (=1)	0,041	0,043	-0,020	-0,038
	(0,145)	(0,146)	(0,054)	(0,052)
Divorce (=1)	0,054	0,063	.	.
	(0,165)	(0,168)		
Separation from partner (=1)	0,336	0,393	-0,490	-0,569
	(0,278)	(0,293)	(0,384)	(0,380)
Death in Household (=1)	-0,963	-0,936	-0,002	-0,031
	(0,814)	(0,822)	(0,158)	(0,156)
Constant	1,646***	1,855***	4,077***	4,718***
	(0,134)	(0,145)	(1,061)	(1,164)
	N=655	N=655 Groups=435	N=1020	N=1020 Groups=703
	F=16.01***	Wald chi2=271.31***	F=45.36***	Wald chi2=804.79***
	Adj R-sq=0.2561	R-sq=0.2725	Adj R-sq=0.379	R-sq=0.386
New job fixed-term =new job permanent	F=0.09 Prob>F=0.7693	chi2=0.15 Prob> chi2=0.6977	F=1.06 Prob>F=0.301	chi2=0.55 Prob> chi2=0.456

*p<0.1, **p<0.05, ***p<0.01. Standard Errors in parenthesis.

(1) OLS estimation.

(2) Random effects estimation.

Table 6: Effect of the duration of fixed-term contract on health status - Women

Changes in Health Status (t-2 /t)	West-German Women		Spanish Women	
	(1)	(2)	(1)	(2)
(No new job)	-	-	-	-
New job with fixed-term contract	0,042	0,095	0,014	0,016
	(0,138)	(0,148)	(0,062)	(0,063)
New job with permanent contract	0,143	0,192*	0,021	0,020
	(0,105)	(0,113)	(0,103)	(0,103)
Age	-0,342***	-0,309**	0,835	0,854
	(0,109)	(0,121)	(0,560)	(0,586)
Age*Age	-0,673***	-0,678***	-0,039**	-0,041**
	(0,112)	(0,130)	(0,017)	(0,018)
Health status in t-1	-0,582***	-0,697***	-0,688***	-0,710***
	(0,040)	(0,043)	(0,038)	(0,038)
(Less than Second Level Education, ISCED 0-2)	-	-	-	-
Second Level Education (ISCED 3)	0,140*	0,189*	-0,105	-0,107
	(0,084)	(0,101)	(0,080)	(0,082)
Third level Education (ISCED 5-7)	0,166	0,242	-0,006	-0,004
	(0,161)	(0,180)	(0,066)	(0,069)
Number of children in the household in t-1 (=1)	0,107	0,071	0,030	0,028
	(0,085)	(0,096)	(0,034)	(0,035)
Marriage (=1)	-0,253	-0,334	-0,135	-0,137
	(0,191)	(0,204)	(0,171)	(0,172)
Household members move in (=1)	-0,070	-0,109	-0,057	-0,051
	(0,166)	(0,173)	(0,055)	(0,054)
Children born in House-hold (=1)	-0,122	-0,152	-0,024	-0,017
	(0,361)	(0,365)	(0,165)	(0,164)
Household member move out (=1)	0,118	0,018	0,018	0,015
	(0,153)	(0,158)	(0,070)	(0,070)
Divorce (=1)	0,229	0,251	-0,444	-0,456
	(0,197)	(0,211)	(0,673)	(0,675)
Separation from partner (=1)	-0,212	-0,184	-0,491	-0,430
	(0,241)	(0,250)	(0,389)	(0,387)
Death in Household (=1)	0,343	0,018	0,188	0,162
	(0,845)	(0,796)	(0,216)	(0,218)
Constant	2,023***	2,367***	1,142	1,201
	(0,168)	(0,189)	(1,388)	(1,450)
	N=476	N=476 Groups=291	N=712	N=712 Groups=476
	F=15.24***	Wald chi2=280.53***	F=23.21***	Wald chi2=361.93***
	Adj R-sq=0.310	R-sq=0.329	Adj R-sq=0.319	R-sq=0.333
New job fixed-term =new job permanent	F=0.46 Prob>F=0.496	chi2=0.40 Prob> chi2=0.529	F =0.00 Prob>F=0.95	chi2=0.00 Prob> chi2=0.971

*p<0.1, **p<0.05, ***p<0.01. Standard Errors in parenthesis.

(1) OLS estimation.

(2) Random effects estimation.

5 Conclusions

Against the background of increasing numbers of workers in relatively insecure fixed-term contracts in Europe we investigated the relationship between health and contract type. We focused on unemployed workers exiting unemployment in Spain and Germany and compared the health consequences for different contract types. As we know, from the literature, that unemployed workers should on average experience a deterioration of their health we ask whether returning to work helps to restore their health.

As expected, job acquisition improves health status, with the exception of Spanish women and, for men, the positive effect is smaller if they obtain a fixed-term job. For women, however, the transition from unemployment to a fixed-term job has none of the positive health effects typically associated with paid employment. When we compared the longer-term effects of job acquisition, after a period of two years, we loose the positive health effects of job acquisition for Spanish men on fixed-term contracts. It is only German men who retain positive effects of fixed-term contract status over the longer-term which may support our expectation that German fixed-term contract employment provides greater opportunity structures than Spanish fixed-term employment.

Certainly, it is difficult to disentangle health and contract type effects, simply because the causality between contract type and health could run in both directions. On the one hand the insecurity associated with fixed-term contracts increases psychological pressure and might therefore also reduce physical health. On the other hand workers with serious health effects could run into problems finding a permanent job and therefore be condemned to switch alternately between unemployment and fixed-term contracts. In spite of this we have found our results to be relatively robust even when we control for health selection effects by focusing on those unemployed workers with fair to very good health. Even with selection on healthy workers we find that fixed-term jobs are not as good for your health as permanent jobs.

Summarizing, we believe that rising percentages of fixed-term contracts and the associated rise in insecure employment relationships has negative effects on health. This seems to be especially severe in countries like

Spain where one third of all working contracts are fixed-term. Not only are individuals' lives affected by this but there may also be repercussions for the overall production possibilities of an economy.

This paper suggests several different avenues for further research. Firstly, the comparative analysis has revealed interesting cross-national differences in outcome. Further research might want to investigate whether there are differences within the unified Germany by comparing East-Germany and West-Germany with the different unemployment rates in each region likely to influence how individuals react to the job insecurity of fixed term employment.

Future research would also do well to analyse the health effects of other forms of atypical employment, such as part-time work. Such an analysis could shed light on the health effects of employment for women who, in principle, are not suffering from the “double burden” of paid and unpaid work.

Finally, it would be interesting to test whether the effect of fixed-term contracts differs according to the quality of the job. While the present paper tested for interaction effects between occupational skill level and contract type, these were found to be statistically insignificant. Future work could investigate different indicators of job quality to test whether the effect of fixed term contracts on health varies depending on job quality.

Bibliography

Ahn, M./Jimeno, J.F./Ugidos, A. (2003): "Mondays at the Sun: Unemployment, Time Use, and Consumption Patterns in Spain". FEDEA, Documentos de Trabajo 2003-18.

Álvarez, B./Miles, D. (2003): "Gender effect on housework allocation: evidence from Spanish two-earner couples". Journal of Population Economics, 16, 227-242.

Amuedo-Dorantes, C. (2000): "Work Transitions Into and Out of Involuntary Fixed-Term Employment in a Segmented Market: Evidence from Spain", Industrial and Labour Relations Review, 53, 309-325.

Artazcoz, L./Benach, J./Borrell, C./Cortes, I. (2005): "Social inequalities in the impact of flexible employment on different domains of psychological health", Journal of Epidemiology and Community Health, 59(9), 761-767.

Bauer T.N./Truxillo, D.M. (2000): "Temp-to-Permanent Employees: A Longitudinal Study of Stress and Selection Success", Journal of Occupational Health Psychology, 5(3), 337-346.

Benavides F.G./Benach, J./Diez-Roug, AV./Roman, C. (2000): "How do types of employment relate to health indicators? Findings from the second European Survey on Working Conditions", Journal of Epidemiology and Community Health, 54, 494-501.

Bohle, P./Quinlan, M./Mayhew, C. (2001): "The Health and Safety Effects of Job Insecurity: An Evaluation of the Evidence", Economic and Labour Relations Review, 12 (1), 32-60.

Boockmann, B./Hagen, T. (2005): "Befristete Beschäftigungsverhältnisse. Brücken in den Arbeitsmarkt oder Instrumente der Segmentierung?" Reihe ZEW-Wirtschaftsanalysen, Band 79.

Burchell, B.J. (1994): "The effects of labour market position, job insecurity and unemployment on psychological health", in: Duncan, G./Marsh, C./Vogler, C. (eds.): Social Change and the Experience of Unemployment, Oxford: Oxford University Press, 188-212.

Bundesanstalt für Arbeit (2001): "Arbeitsmarkt 2000", in: Amtliche Nachrichten der Bundesanstalt für Arbeit (ANBA), Vol. 49 (Sondernummer).

Burchell, B.J. (1999): "The Unequal Distribution of Job Insecurity, 1966-86", International Review of Applied Economics, 13 (3), 437-458.

Charles, N./James, E.(2003): "The Gender Dimensions of Job Insecurity in a Local Labour Market", Work, Employment and Society, 17 (3), 531-552.

Clark, A.A. (2003): "Unemployment as a social norm: psychological evidence from panel data", Journal of Labour Economics, 21 (2), 323-351.

Eurostat (2002): “Eurostat Yearbook 2002: The Statistical Guide to Europe” Statistical Office of the European Commission.

Ferrie J.E./Shipley, M.J./Marmot, M.G./Stansfeld, S./Smith, G.D. (1995): “Health effects of anticipation of job change and non-employment: longitudinal data from Whitehall II study”, British Medical Journal, 311, 1264-1269.

Gash, V. (2004a): “Labour Market Flexibilisation: Qualities of Employment, Equalities of Outcome. A Comparison of Temporary and Part-time Employment in Denmark, France and the United Kingdom”, Oxford: Unpublished Thesis. Nuffield College.

Gash, V. (2004b): “Bridge or Trap? To What Extent Do Temporary Workers Make More Transitions to Unemployment Than to the Standard Employment Contract?” Working Paper of the Project Employment Relationships at Risk. MPI-Berlin, Working paper No. 3, 2005.

Gash, V./McGinnity, F. (2005): “Temporary Contracts - the new European inequality? Comparing men and women in West Germany and France” Working Paper of the Project Employment Relationships at Risk. MPI-Berlin, Working paper No. 5, 2005.

Gallie, D./Russell, H. (1998): “Unemployment and Life Satisfaction: A Cross-Cultural Comparison”, European Journal of Sociology 39 (2), 248-280.

Goldsmith, A.H./Veum, J.R./Darity, W.Jr. (1996): “The impact of labour force history on self-esteem and its component parts, anxiety, alienation, and depression”, Journal of Economic Psychology 17, 183-220.

Green, F. (2003): “The Rise and Decline or Job Insecurity”, Studies in Economics, Dept of Economics, University of Kent, 0305.

Hamilton, V.H./Merrigan, P./Dufresne, E. (1997): “Down and Out: Estimating the Relationship between Mental Health and Unemployment”, Health Economics, 6, 397-406.

Houseman, S.N. (2001): “Why Employers Use Flexible Staffing Arrangements: Evidence from an Establishment Survey”, Industrial and Labour Relations Review, 55 (1), 149-170.

Jahoda, M. (1982): “Employment and Unemployment”. Cambridge: Cambridge University Press. Cambridge.

Jimeno, J.F./Toharia, L. (1993): “The effects of fixed-term employment on wages: Theory and evidence from Spain”, Investigaciones Economicas XVII(3), 475-494.

Jürges, H. (2005): "Cross-Country Differences in General Health" in Health, Ageing and Retirement in Europe – First Results from the Survey of Health, Ageing and Retirement in Europe, Börsch-Supan, A./ Brugiavini, A./Jürges, H./Mackenbach, J./Siegrist, J./Weber, G. (eds.) (2005): Mannheim: MEA, 2005.

Kalleberg, A.L/Reskin, B.F./Hudson, K. (2000): "Bad Jobs in America: Standard and Non-Standard Employment Relations and Job Quality in the United States." American Sociological Review, 65(April), 256-278.

Kasl, S./Jones, B.A. (1998): "The impact of job loss and retirement on health", in: Social Epidemiology, L.F. Berkman and I. Kawachi (Eds), Oxford University Press, Oxford.

Klein Hesselink, D.J./van Vuuren, T. (1999): "Job Flexibility and job insecurity: The Dutch case", European Journal of Work and Organizational Psychology, 8 (2), 273-93.

Lasfargues, G./Doniol-Shaw, G./Deriennic, F./Bardot, F./Huez, D./Rondeau du Noyer, C. (1999): "Précaritié de l'emploi et santé: différences hommes-femmes", Archieves des Maladies Professionnelles et de Médecine du Travail, (8), 273-293.

Marsh, C./Alvaro, J.L.(1990): "A Cross-Cultural Perspective on the Social and Psychological Distress Caused by Unemployment: A Comparison of Spain and the United Kingdom", European Sociological Review, 6 (3), 237-255.

McGinnity, F./Mertens, A./Gundert, S. (2005): "A Bad Start? Fixed-Term Contracts and the Transition from School to Work in Germany", European Sociological Review, 21(4), 359-374.

McGovern, P./Smeaton, D./Hill, S. (2004): "Bad Jobs in Britain: Non-Standard Employment and Job Quality." Work and Occupations, 31 (2), 225-249.

Mertens, A./McGinnity, F. (2004): "Wages and wage growth of fixed-term workers in East and West Germany", Applied Economics Quarterly, 50 (2), 139-163.

Mertens, A./Gash, V./McGinnity, F. (2005): "The Cost of Flexibility at the Margin. Comparing the Wage Penalty for Fixed-Term Contracts in Germany and Spain using Quantile Regression", Berlin: Max-Planck-Institute for Human Development (Working paper No. 4 of the Project Employment relationships at Risk).

Mertens, A./McGinnity, F./Gundert, S. (2005): "A Bad Start? Fixed-Term Contracts and the Transition from Education to Work in West Germany", European Sociological Review, 21 (4), 359-374.

Murphy, G.C./Athanasou (1999): “The effect of unemployment on mental health”, Journal of Occupational and Organizational Psychology, 72, 83-99.

OECD (2002): “OECD Employment Outlook: 2002 Edition”. OECD: Paris.

Pearlin, L. (1989): “The Sociological Study of Stress”, Journal of Health and Social Behaviour 30 (3), 241-256.

Polavieja, J.G. (2003): “Temporary Contracts and Labour Market Segmentation in Spain: An Employment Rent Approach.” European Sociological Review 19: pp. 501-517.

Romeu Gordo, L. (forthcoming): Effects of Short- and Long-Term Unemployment on Health Satisfaction: Evidence form German Data, Applied Economics.

Rosenfeld, R.A./Trappe, H./Gornick, J.C. (2004): “Gender and Work in Germany: Before and After Reunification.” Annual Review of Sociology 30, 103-124.

Rudolph, H (2000): “Arbeitsmarktpolitik. Befristete Arbeitsverträge sind bald neu zu regeln”, IAB-Kurzbericht 12/2000, Nürnberg.

Schömann, K./Rogowski, R./Kruppe, T. (1998): “Labour Market Efficiency in the European Union: Employment Protection and Fixed-term Contracts.” London: Routledge.

Schupp, J./Wagner, G. (1995): “The German Socio-Economic Panel: A Database for longitudinal international comparisions.” Innovation, 8 (1), 95-108.

Schwefel, D. (1986): “Unemployment, health and health services in German-speaking countries”, Social Science and Medicine, 22 (4), 409-430.

Standh, M. (2000): “Different Exit Routes from Unemployment and their Impact on Mental Well-Being: The role of the Economic Situation and the Predictability of the Life Course”. In: Work, Employment and Society, Vol. 14, No. 3, 459-479.

Storrie, D. (2002): “Temporary Agency Work in the European Union.” Dublin: European Foundation for the Improvement of Working Life and Living Conditions.

Sverke M./Gallagher, D.G./Hellgreen, J. (2000): “Job stress, well-being, and work attitudes among employees with different employment contracts”, in: Isaksson, K./Hogstredt, C./Eriksson, C./Theorell, T. (eds.): Health effects of the New Labour Market. New York: Kluwer Academic/ Plenum Publishers, 2000: 145-67.

Theodossiou, I. (1998): “The effects of low-pay and unemployment on psychological well-being: a logistic regression approach”, Journal of Health Economics 17, 85-104.

Virtanen M./Kivimäki, M./Elovainio, M./Vahtera, J. (2002): “Selection from fixed-term to permanent employment: prospective study on health, job satisfaction and behavioural risks”, Journal of Epidemiology and Community Health, 56, 693-699.

Virtanen M./Kivimäki, M./Elovainio, M./Vahtera, J. (2003): “From insecure to secure employment: changes in work, health, health related behaviours, and sickness absence”, Occupational and Environmental Medicine, 60, 948-953.

Warr, P. (1987): “Work, Unemployment and Mental Health”, Oxford: Oxford University Press.

Whelan, Ch.T. (1992): “The Role of Income, Life-Style Deprivation and Financial Strain in Mediating the Impact of Unemployment on Psychological Distress: Evidence from the Republic of Ireland”. Journal of Occupational Psychology 65 (4) 331-344.

APPENDIX

Table A1: Objective Health Indicators by Subjective Health Status

	sex	mean (Stays in Hospital)	mean (Doctors Visits)	No Hospitalisation	No doctors visits
WEST-GERMANY				%	%
	male	2.78	12.94	92.70	46.43
	female	2.32	14.59	87.77	29.30
		If in Good-Fair Health			
	male	2.28	10.56	94.28	49.48
	female	2.11	12.12	89.14	31.84
		If in Bad Health			
	male	3.99	26.74	77.69	17.31
	female	3.08	28.51	77.53	9.98
SPAIN					
	male	9.56	4.60	94.86	38.35
	female	8.42	6.23	93.77	23.35
		If in Good-Fair Health			
	male	7.66	4.02	95.50	39.40
	female	6.52	5.46	94.50	24.27
		If in Bad Health			
	male	20.01	15.29	77.20	8.29
	female	18.30	18.68	78.70	4.49

Spanish Sample excluding those less than 20 and greater than 54 years.

The precise wording of the questions are the following: During the past 12 months, have you been admitted to a hospital? Doctors visits is a combined category of answers to the following: (1) During the past 12 months, about how many times have you consulted a general practitioner (including home visits by the doctor)? And (2) During the past 12 months, about how many times have you consulted a medical specialist (including out-patient consultations but excluding any consultations during hospitalisation).

German Sample excluding those less than 20 and greater than 54 years.

The precise wording of the questions are the following: (1) How often were you admitted to a hospital last year? Doctor visits is an extrapolation of the answer to the question: (2) Have you gone to a doctor within the last three months? If yes, please state how often.

Table A2: Childcare hours per employment status

	WEST-GERMANY	SPAIN
	If UNEMPLOYED	
male	4.40	4.99
female	6.75	8.18
	If EMPLOYED full-time (i.e. equal or more than 30 hours a week)	
male	1.95	2.86
female	3.65	7.14
	Difference in Childcare Hours between Employment and Unemployment	
male	-2.45	-2.13
female	-3.10	-1.04

* The number of childcare hours for the Spanish sample measures the number of hours per week, for the purpose of this table this amount has been divided by seven.

** The number of childcare hours per day for Germany refers only to working days.

Recently published

No.	Author(s)	Title	Date
1/2004	Bauer, T. K. Bender, S. Bonin, H.	Dismissal protection and worker flows in small establishments	7/04
2/2004	Achatz, J. Gartner, H. Glück, T.	Bonus oder Bias? : Mechanismen geschlechtsspezifischer Entlohnung published (revised) in: Kölner Zeitschrift für Soziologie und Sozialpsychologie 57 (2005), S. 466-493	7/04
3/2004	Andrews, M. Schank, T. Upward, R.	Practical estimation methods for linked employer-employee data	8/04
4/2004	Brixy, U. Kohaut, S. Schnabel, C.	Do newly founded firms pay lower wages? First evidence from Germany	9/04
5/2004	Kölling, A. Rässler, S.	Editing and multiply imputing German establishment panel data to estimate stochastic production frontier models published in: Zeitschrift für ArbeitsmarktForschung 37 (2004), S. 306-318	10/04
6/2004	Stephan, G. Gerlach, K.	Collective contracts, wages and wage dispersion in a multi-level model	10/04
7/2004	Gartner, H. Stephan, G.	How collective contracts and works councils reduce the gender wage gap	12/04
1/2005	Blien, U. Suedekum, J.	Local economic structure and industry development in Germany, 1993-2001	1/05
2/2005	Brixy, U. Kohaut, S. Schnabel, C.	How fast do newly founded firms mature? : empirical analyses on job quality in start-ups published in: Michael Fritsch, Jürgen Schmude (Ed.): Entrepreneurship in the region, New York et al., 2006, S. 95-112	1/05
3/2005	Lechner, M. Miquel, R. Wunsch, C.	Long-run effects of public sector sponsored training in West Germany	1/05
4/2005	Hinz, T. Gartner, H.	Lohnunterschiede zwischen Frauen und Männern in Branchen, Berufen und Betrieben published as: Geschlechtsspezifische Lohnunterschiede in Branchen, Berufen und Betrieben. In: Zeitschrift für Soziologie 34 (2005), S. 22-39	2/05
5/2005	Gartner, H. Rässler, S.	Analyzing the changing gender wage gap based on multiply imputed right censored wages	2/05
6/2005	Alda, H. Bender, S. Gartner, H.	The linked employer-employee dataset of the IAB (LIAB) published (shortened) as: The linked employer-employee dataset created from the IAB establishment panel and the process-produced data of the IAB (LIAB). In: Schmollers Jahrbuch. Zeitschrift für Wirtschafts- und Sozialwissenschaften 125 (2005), S. 327-336	3/05
7/2005	Haas, A. Rothe, T.	Labour market dynamics from a regional perspective: the multi-account system	4/05

8/2005	Caliendo, M. Hujer, R. Thomsen, S. L.	Identifying effect heterogeneity to improve the efficiency of job creation schemes in Germany	4/05
9/2005	Gerlach, K. Stephan, G.	Wage distributions by wage-setting regime	4/05
10/2005	Gerlach, K. Stephan, G.	Individual tenure and collective contracts	4/05
11/2005	Blien, U. Hirschenauer, F.	Formula allocation : the regional allocation of budgetary funds for measures of active labour market policy in Germany	4/05
12/2005	Alda, H. Allaart, P. Bellmann, L.	Churning and institutions : Dutch and German establishments compared with micro-level data	5/05
13/2005	Caliendo, M. Hujer, R. Thomsen, S. L.	Individual employment effects of job creation schemes in Germany with respect to sectoral heterogeneity	5/05
14/2005	Lechner, M. Miquel, R. Wunsch, C.	The curse and blessing of training the unemployed in a changing economy : the case of East Germany after unification	6/05
15/2005	Jensen, U. Rässler, S.	Where have all the data gone? : stochastic production frontiers with multiply imputed German establishment data	7/05
16/2005	Schnabel, C. Zagelmeyer, S. Kohaut, S.	Collective bargaining structure and its determinants : an empirical analysis with British and German establishment data	8/05
17/2005	Koch, S. Stephan, G. Walwei, U.	Workfare: Möglichkeiten und Grenzen published in: Zeitschrift für ArbeitsmarktForschung 38 (2005), S. 419-440	8/05
18/2005	Alda, H. Bellmann, L. Gartner, H.	Wage structure and labour mobility in the West German private sector 1993-2000	8/05
19/2005	Eichhorst, W. Konle-Seidl, R.	The interaction of labor market regulation and labor market policies in welfare state reform	9/05
20/2005	Gerlach, K. Stephan, G.	Tarifverträge und betriebliche Entlohnungsstrukturen	11/05
21/2005	Fitzenberger, B. Speckesser, S.	Employment effects of the provision of specific professional skills and techniques in Germany	11/05
22/2005	Ludsteck, J. Jacobebbinghaus, P.	Strike activity and centralisation in wage setting	12/05
1/2006	Gerlach, K. Levine, D. Stephan, G. Struck, O.	The acceptability of layoffs and pay cuts : comparing North America with Germany	1/06
2/2006	Ludsteck, J.	Employment effects of centralization in wage setting in a median voter model	2/06
3/2006	Gaggermeier, C.	Pension and children : Pareto improvement with heterogeneous preferences	2/06
4/2006	Binder, J. Schwengler, B.	Korrekturverfahren zur Berechnung der Einkommen über der Beitragsbemessungsgrenze	3/06
5/2006	Brixy, U. Grotz, R.	Regional patterns and determinants of new firm formation and survival in western Germany	4/06

6/2006	Blien, U. Sanner, H.	Structural change and regional employment dynamics	4/06
7/2006	Stephan, G. Rässler, S. Schewe, T.	Wirkungsanalyse in der Bundesagentur für Arbeit : Konzeption, Datenbasis und ausgewählte Befunde	4/06

Impressum

IABDiscussionPaper
No. 8 / 2006

Herausgeber
Institut für Arbeitsmarkt- und Berufsforschung
der Bundesagentur für Arbeit
Weddigenstr. 20-22
D-90478 Nürnberg

Redaktion
Regina Stoll, Jutta Palm-Nowak

Technische Herstellung
Jutta Sebald

Bezugsmöglichkeit
Volltext-Download dieses DiscussionPaper
unter:
http://doku.iab.de/discussionpapers/2006/dp0806.pdf

IAB im Internet
http://www.iab.de

Rückfragen zum Inhalt an
Dr. Laura Romeu Gordo, Tel. 0911/179-5850,
oder E-Mail: laura.romeu-gordo@iab.de