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Paper

Unemployment durations after temporary work: Evidence for Great Britain and Germany

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Abstract

Unemployment durations are determined by a number of factors. According to mainstream economics theory, unemployment durations are shorter in a more flexible labour market. In this paper, we hypothesize that workers who had a temporary contract before the spell of unemployment will experience shorter spells of unemployment than workers who had a permanent contract before. We adopt a flexible hazard rate model with a nonparametric baseline to analyse data on unemployment spells in Germany and Great Britain for the period 1991-2001. The two datasets allow for an international comparison of the institutional differences between the two countries. We find no evidence of shorter unemployment spells for previous temporary workers neither in Great-Britain nor in Germany. Results suggest that a labour market policy of promoting temporary work will not necessarily lead to lower unemployment since these policies increase the probability of becoming unemployed without being able to fulfil the promise of shorter unemployment spells.

Keywords: unemployment duration, temporary employment, job search model, nonparametric hazard model, Great-Britain, Germany

JEL codes: J64, J41, C41, C14

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Introduction

Flexibilisation of the labour market has been at the forefront of the labour market policy debate during the whole of the 1990s. One example of such flexibilisation is the rise in the number of temporary jobs, especially in Europe. More temporary jobs add to flexibilisation of the labour market as a whole, but also generate a source of insecurity, in particular an increased risk of unemployment for the workers on these temporary jobs.

In this paper we investigate the determinants of unemployment spell durations for individual workers that are more prone to have 'flexible careers', that is, they are more likely to have temporary jobs more often. Unemployment spells start when workers are laid off, made redundant or when there temporary contract ends. Temporary workers have an inherently larger probability of unemployment and because temporary work has become more widespread in most countries it is interesting to look at the duration of unemployment spells for former temporary workers and see whether they differ in length from unemployment spells of workers that were laid off or made redundant. Earlier studies on the impact of temporary work on unemployment duration have found the introduction of fixed term contracts in Spain to reduce unemployment duration by increasing the hazard rate out of unemployment into employment (Bover et al, 2002). Similar effects were found for the Netherlands (Zijl et al, 2004). In a study in which unemployment duration for previous permanent and temporary workers was compared using French data, it was found that temporary workers had higher exit probabilities out of unemployment (Van den Berg & Van der Klaauw, 2001). Temporary workers are inherently more prone to experience spells of unemployment. When their unemployment spells are longer than or equal to spell lengths after permanent jobs this would not only result in lower job-stability but also to higher income loss (if we assume that wages for both types of workers are equally high).

From a neoclassical labour economics perspective, increased contractual flexibility is a policy option that will foster employment growth and reduce unemployment. This might actually work if temporary workers are prone to make transitions to permanent employment or experience shorter spells of unemployment (or both).

There is a vast body of literature on the subject of unemployment duration and the impact of various personal characteristics on it (e.g. Nickell, 1979; Lancaster & Nickell, 1980). Most work has focused on the transition from unemployment into full-time permanent employment (e.g. Narendranathan & Stewart, 1993; Arulampalam & Stewart, 1995). Given the recent growth in the number of temporary and part-time jobs these studies are missing an ever-growing part of highly relevant labour market transitions.

Another major field of research involves the impact of unemployment insurance schemes on unemployment duration (e.g. Nickell, 1979, Atkinson et al., 1984). Both the impact of the benefit-level as that of the benefit-duration has been thoroughly examined. The aforementioned studies focus primarily on the level where others focus on duration (e.g. Katz & Meyer, 1990).

Finally, more recent research pays attention to the relationship between the duration of unemployment and the probability of finding a job. (e.g. Van den Berg & Van Ours, 1994, 1996, Bover et al, 2002, Roed & Zhang, 2003) Duration dependence can be both positive, when workers increase their search effort when faced with the expiration of their benefit entitlement and negative through stigmatization or the 'discouraged worker' effect for long term unemployed.

Temporary jobs and the job search framework

Temporary work (fixed term contracts, seasonal or occasional jobs) poses a theoretical challenge when we want to incorporate it into the job search framework in two ways. Firstly, temporary workers are more likely to become unemployed but they already are aware of that when they start the job.

This is a problem when we want to incorporate temporary, fixed term employment in the job search framework. As argued above one of the basic assumptions of the job search framework is that the termination of employment spells is stochastically determined. So we no longer have to model the duration of a job spell, it is already given.

The 'advance notice' approach

One way to incorporate these considerations into the job search framework is offered by the literature on 'advance notice' (Addison & Portugal, 1987, Swaim & Podgursky, 1990, Addison & Blackburn, 1995, 1997).The basic idea is that workers that were given advance notice or advance information on their layoff have the possibility to engage in increased levels of on the job search before the actual layoff takes place. Swaim & Podgursky (1990) recognised this and present a 'sequential-regimes' job search model in which they explicitly model two stages of job search, one before job loss and one after job loss. In a sense, a fixed term contract comes with an advance notice from the very beginning, more so when prospects for permanent employment with the same employer are bad. When hired for a six-month contract, you immediately receive six months notice. Applying the framework proposed by Swaim & Podgursky this would theoretically result in shorter spells of unemployment after the contract than for workers who worked on a permanent contract and were laid off without advance notice or information. So, a hypothesis to test would be that workers that had a temporary contract would experience a shorter spell of unemployment compared to other workers.

The 'limited duration' approach

Another option is to look at the literature on limited duration of unemployment benefits (e.g. Katz & Meyer, 1990). Katz & Meyer (1990) model the hazard rate from unemployment using the potential duration of the benefit, the time until exhaustion of the benefits, the level of benefits and a vector of individual and labour market variables that affect different aspects of the job search process (arrival rate, search intensity, reservation wage). Their results using the Mortensen (1977) model indicate that an increase in the potential duration of the benefit has two opposing effects on the hazard rate from unemployment. On the one hand it raises the value of remaining unemployed, on the other it also raises the value of being employed by raising the utility associated with being laid off in the future. Typically, a longer benefit period is associated with a lower initial hazard rate, whereas the hazard rate is higher just before and after exhaustion for the longer benefit period. (see Figure 1)

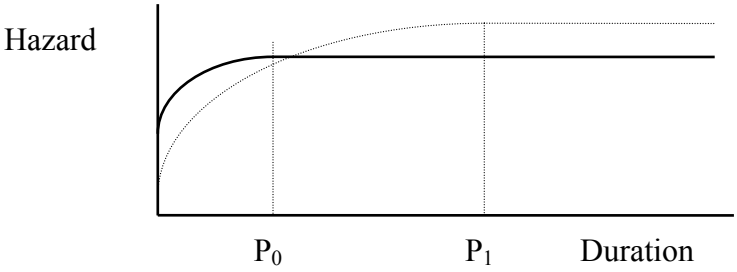

FIGURE 1 (SOURCE: KATZ & MEYER, 1990)

When we extend this approach to fixed term (or other temporary) employment we expect to find lower initial reemployment hazard for on the job search for workers on temporary contracts of longer duration and a higher reemployment hazard just before and after the longer contract has ended.

On the other hand we must realise that longer tenure in a temporary job will normally entitle the worker to longer duration of benefits. So the total result on unemployment duration of longer tenure in a temporary job is ambiguous from a theoretical point of view.

Furthermore we want to investigate more long-lasting effects of temporary jobs in this paper. Workers who have had temporary contracts might be more able to find a job quickly because they are faced more often with the gloomy prospect of unemployment. Their 'flexible careers' make them more proficient in finding jobs when unemployed, at least theoretically.

An empirical model of unemployment duration

The job search framework has been widely used in the empirical analysis of unemployment duration. The duration of unemployment is modelled by specifying the conditional probability of leaving unemployment (e.g. Lancaster, 1990). The hazard is the product of two probabilities: the probability of receiving a job offer and the probability of accepting the job offer. Furthermore we can assume some duration dependence by means of specifying a 'baseline hazard'. The Weibull specification is often used but it has been rejected on several occasions (Han & Hausman, 1990, Narendranathan & Stewart, 1993) for being too restrictive and not providing an adequate representation of empirical hazard rates, because it only allows for hazard rates that monotonically increase or decrease with duration.

A truly flexible specification of the baseline hazard rate allows for non-monotonic variation with duration, and therefore a wider range of possible effects of duration on the hazard rate are captured. This is important if non-stationarities, such as running out of unemployment benefits, exist in some element of the job search environment.

When we want to incorporate this notion in the hazard function a discrete time hazard rate for person i in the time interval j to leave a certain state would look the following:

$$\theta(x,t) = 1 - \exp\left\{\exp\left(x_{ij}'\beta + \phi(t)\right)\right\} \quad \textbf{(1)}$$

where x_{ij} is a set of individual characteristics, β is a vector of coefficients and ϕ(t) is some functional form of how the duration of the spell affects the hazard rate. It is assumed that for each time interval there is a specific parameter that is constant over that period (Prentice and Gloeckler, 1978). In other words, the specification of the baseline hazard if fully flexible by

allowing it to be constant in each time period with an interval specific parameter ϕ (t). This parameter can be interpreted as the logarithm of the integral of the baseline hazard over the relevant time interval.

The extension of the standard single risk model to two or more independent exit destinations is referred to in the statistics literature as an independent competing risks model, where the log-likelihood can be split into the sum of its risk-specific hazards (Lancaster, 1990).

$$\theta(x,t) = \sum_{j=1}^{K} \theta_j(x,t) \tag{2}$$

In such a model observations which exit to a different destination are treated as censored. In this paper the main focus is on what happens before the unemployment spell. Competing risks models are estimated separately for exit routes 'employment' and 'inactivity' to check for robustness.

In principle, this model could be extended to allow for unobserved heterogeneity. However it has been established that adding a (possibly misspecified) unobserved heterogeneity term could possibly introduce more serious distortions than those caused by ignoring unobserved heterogeneity (Narendranathan & Stewart, 1993; Arulampalam & Stewart, 1995; Böheim & Taylor, 2000). Therefore in this paper we abstract from unobserved heterogeneity in our main specification. So we implicitly assume that our covariates capture all individual heterogeneity and check for the robustness of that assumption by estimating the specification with unobserved heterogeneity whenever computationally feasible.

Data and variables

The data used in the analysis consist of information from household panel data surveys for Great Britain (British Household Panel Survey) and Germany (German Socio-Economic Panel). For both panels the waves from the years 1991 to 2001 are used. In this paper we use a sub sample of both panels consisting of spells of unemployment which are completed, started after the interview date of the first year of analysis (1991) and can be combined with sufficient information on the individuals experiencing the spells.

The covariates used to explain the hazard rate out of unemployment consist of three groups of variables:

- Individual characteristics (age, marital status, education, non-native)
- Household characteristics (children present, other household income)
- Labour history variables (temporary, permanent work in last three years, unemployment in last three years, temporary work directly prior to unemployment, duration of employment spell directly prior to unemployment)

To capture the institutional differences between Germany and Great Britain we explain differences in outcomes by referring to the qualitative account of the institutions and their development in both countries.

Descriptive statistics

In this paragraph descriptive statistics are presented on both the percentage of temporary employees, the transition rates of these employees to other labour market states the next year and on the duration of unemployment spells, both after temporary jobs, and permanent jobs.

Temporary jobs

First of all we look at the share of employees that work on a non-permanent contract. For Britain we see that the relative number of employees on seasonal or fixed term temporary contract has increased from an already high percentage until a serious drop in 1998. This is probably due to a tightening of the labour market. Similar drops in the number of employees have been found for the Netherlands (OSA, 2000). It should be noted however that these numbers are substantially higher than the numbers produced on the basis of the Labour Force Survey for Great-Britain (Dekker, 2000).

For Germany the numbers are quite different. The percentage of temporary employees was very low in the beginning of the decade and increased to British levels over the course of the 1990s. The sharp increase from 1994 to 1995 in the percentage of temporary employees suggests that there has been a change in definition of a temporary job (or the routing) in the questionnaire. In 1998 a consolidation of the high level can be observed.

<Insert Table 1 here>

<Insert Table 2 here>

Transitions

The percentage of workers on temporary jobs and its development over the years does not provide information about what happens to individual workers after the temporary job. Do they find permanent jobs? Do they end up in unemployment? Or do they withdraw from the labour market altogether?

<Insert Table 3 here>

<Insert Table 4 here>

From the transition tables we learn that the chances of unemployment after a temporary job are much higher in Germany. On the other hand British workers on temporary contracts have a much higher chance of ending up in nonparticipation.

Transition rates to permanent jobs are slightly higher in Britain than in Germany, especially towards the end of the 1990s. The stay rate in temporary employment is comparable to that in Germany.

Durations of unemployment spells

The data in the BHPS and the GSOEP provide us with information on unemployment spells. Only information on completed spells of unemployment will be used.

For the BHPS we have 2437 spells of unemployment that started after the first interview date in 1991 and were completed before the last interview date. These unemployment spells have a mean duration of about six and a half months and a median duration of about three and a half months. When previous work experience is taken into account, marked differences are revealed between workers with a 'flexible' employment history and workers with a more stable employment pattern. Workers that have had a temporary job in the three years prior to the unemployment spell on average have a two months shorter unemployment spell. A temporary job directly previous to the unemployment spell does not seem to add to this effect.

<Insert Table 5 here>

In Germany, 6069 completed spells of unemployment that started after the interview date in 1991, were registered. On average these spells last longer (about two and a half months) than those in Great Britain. In Germany too, workers with a flexible past see their unemployment spells reduced considerably. However, the difference is slightly smaller than in Great Britain. A temporary job does, again, not seem to further reduce the length of the following unemployment spell. People that had a spell of nonemployment (nonparticipation, education, etc.) directly prior to their unemployment spell seem to experience shorter than average unemployment spells in Germany, whereas in Great Britain, these spells tend to be longer than average.

<Insert Table 6 here>

Results of estimations

Introduction

As mentioned before, several empirical specifications could be used to estimate the duration of spells of unemployment, but a choice was made for a model with a fully flexible (nonparametric) baseline hazard. This model was developed by Prentice & Gloeckler (1978)

and is easily estimated in Stata with a routine provided by Jenkins (1995). The model also estimates extended models that allow for unobserved heterogeneity as proposed by Meyer (1990), but for reasons mentioned earlier, the analysis in this paper is restricted to the 'simple' model. Another reason not to add an unobserved heterogeneity term is that the labour history variables used in the model specification are likely to pick up a substantial part of any unobserved heterogeneity. Robustness checks are performed to see whether this assumption is valid.

Models are estimated for Germany and Great Britain for men and women separately. The main focus is on variables that characterise the labour history of the individual worker. That is the main reason why we don't specify a competing risks model. The interest is mainly in what happened before the unemployment spell (and its influence on the duration of unemployment), rather than on what happens after the unemployment spell. For checking the robustness of the assumption of 'no competing risks' we have estimated competing risks models as well.

Estimation of the Prentice/Gloeckler model involves estimating a baseline hazard for each time period an individual is in unemployment. We restricted the analysis by redefining all unemployment spells longer than 3 year (36 months) as 'longer than three years', represented by the duration of 37. Even then the results of estimation contain a large number of coefficients, so for reasons of conciseness, only the coefficients for the covariates are presented in this paragraph. The complete results of parameter estimations for the flexible baseline hazard can be found in Appendix A.

Germany

For Germany the results for men do not differ a great deal from the results for German women. Older men are less likely to leave unemployment but at a decreasing rate. Marriage is significantly increasing the hazard rate out of unemployment for men but not for women. Having access to other financial resources as denoted by the variable Other household income does reduce the exit rate out of unemployment for both men and women, but not significantly. The presence of a small child (younger than six years of age) does significantly reduce the hazard rate out of unemployment for both men and women. Education (measured in years of education) does increase the hazard rate out of unemployment, again for both men and women. Previous experience in a temporary job does not influence the hazard rate significantly. Experiences of unemployment however, do significantly reduce the exit rate, and thus increase the duration of unemployment. Previous experience in permanent employment increases the exit rate for women, but not significantly. A temporary job directly prior to the spell of unemployment reduces the hazard rate out of unemployment, but only for men. This is the reverse effect of what the theory predicted. The duration of the previous spell of employment has no significant effect on the hazard rate. This is contrary to the expectations of the theory presented earlier. Non-native German men have a lower exit rate out of unemployment and thus experience longer unemployment spells, this is less significantly so for non-native German women. When we look at the dummy variables for the 'duration effects' (Appendix A), it is easily seen that the hazard rate out of unemployment decreases with duration for every next period has a significantly negative effect. But we can observe smaller negative effects at duration of 12 and 24 months, an indication that benefit exhaustion contributes to a higher (but still negative) exit rate out of unemployment. See appendix for Table A1 also that includes parameter estimates for the dummy variables that represent the flexible baseline

<Insert Table 7 here>

Great Britain

For Great Britain the results are not dramatically different compared to those for Germany. Older men are less likely to leave unemployment but at a decreasing rate and the same applies for older women in Great Britain. Marriage is significantly increasing the hazard rate out of unemployment for both men and women. The presence of a small child (younger than six years of age) does not influence the hazard rate significantly. Having access to other financial resources as denoted by the variable Other household income does significantly increase the exit rate out of unemployment for men but not for women. Education (denoted by dummies for different levels of educational attainment) does not influence the hazard rate out of unemployment a great deal, apart from the positive effect of O level qualifications for men. Previous experience in a temporary job does influence the hazard rate for neither men nor women. Experiences of unemployment however, do significantly reduce the exit rate, and thus increase the duration of present unemployment, for both men and women. Previous experience in permanent employment does not significantly influence the exit rate. A temporary job directly prior to the spell of unemployment also has no significant effect. The duration of the previous spell of employment has a positive effect on the hazard rate out of unemployment for both men and women. Ethnicity is a nonsignificant factor for the hazard rate out of unemployment in Great Britain. Not surprisingly, a higher level of unemployment has a negative effect on the hazard rate, thus prolonging spells of unemployment significantly for both men and women. When we look at the dummy variables for the 'duration effects' for the British case, it is easily seen that there is no systematic relation between the hazard rate out of unemployment and the duration of unemployment. None of the dummy variables (except the last one, obviously) are significantly influencing the hazard rate. This could indicate that the British system of unemployment benefits is less prone than the German one to have an effect on the exit rate out of unemployment, which was to be expected given the much less generous nature of the British unemployment benefit system. Again see appendix for Tables A3 and A4 that include coefficients for the dummy variables.

<Insert Table 8 here>

Comparing the two countries and explaining the differences

The major differences between Great Britain and Germany could already be observed by looking at the descriptives. German unemployment spells are more numerous and tend to last longer than their British counterparts. This hardly comes as a surprise since it is a well known macroeconomic fact that unemployment in Great Britain is considerably lower than in Germany. The straightforward explanation for that is that Great Britain's labour market is less regulated in terms of obstacles for hiring and firing and a less generous system of unemployment benefits.

But given these differences, the impact of the variables used in this paper on the duration of unemployment (or rather, the hazard rate out of unemployment) shows some remarkable similarities. The quadratic age function has a similar shape and size for both countries, for both men and women. This is not surprising given earlier results from empirical literature on unemployment durations (e.g. Böheim & Taylor (2000)).

The effect of marriage is positive in both countries, but in Germany only for men. It is not straightforward to give an explanation for this from the institutional setting described earlier. But it could be the case that German women still tend to withdraw from the labour market after marriage (or child birth).

The presence of a small child is only significant in Germany. This could be due to the fact that the benefit system in Germany is more lenient towards workers with caring obligations for (small) children.

Other household income does reduce the hazard out of unemployment in Germany. The finding for Great Britain could suggest that the British system of unemployment benefits is more individualised but this is obviously not the case.

The effect of education is difficult to compare between the two countries since it is measured differently. For Great Britain information is available on educational attainment level whereas in Germany better information is available on the number of years of schooling. In Germany the negative effect on the hazard rate of extra years of schooling might have something to do with higher educated worker experiencing more difficulty finding a suitable job. That this effect cannot be found for Great Britain is probably due to stricter eligibility rules for unemployment benefits and the lower replacement rates that are offered.

Previous temporary work experience does not influence the hazard rate out of unemployment for both workers in Great Britain and in Germany. This is in contrast with the predictions from theory. But why doesn't this mechanism work? The fact that this does not seem to happen might be due to the fact that the dummy for 'Temporary work in the three years prior to unemployment spell' captures some of the unobserved heterogeneity between workers.

Previous spells of unemployment tend to prolong the current spell of unemployment in both countries for both men and women. This 'stigma' or 'scarring'-effect seems to be universal.

Experience in permanent jobs tends to increase the hazard rate out of unemployment only in Germany and only for female workers. This could be a reversed 'stigma' effect. The finding that this does apparently not occur for in Britain and for German men is slightly puzzling.

A temporary job directly prior to a spell of unemployment should theoretically shorten the spell because of on the job search during the temporary job. In fact the results show no such thing: German men tend to have lower hazard rates out of unemployment after temporary jobs and for German women and unemployment spells in Great Britain we find no effect. This suggests quite strongly that the promotion of temporary work to reduce unemployment is a hazardous (sic) policy. Combined with the inherently higher probability of unemployment, the finding that the duration of the spell of unemployment is not reduced, will potentially result in higher unemployment levels.

The duration in the previous job variable shows significantly positive effects on the hazard rate, but only for Germany. This is again, contrary to theoretical expectations. The fact that longer labour market experience increases the chances for a job in general is probably dominating the effect of the higher benefit entitlements.

Only in Germany we find that non-native workers (men, in particular) have longer unemployment spells.

When we compare the result of the dummy variables in the specification, we can clearly see that duration dependence is only present in Germany. It seems reasonable to conclude that the relatively (compared to Great Britain) generous benefit system and the overall higher levels of unemployment can be blamed for that finding.

Robustness checks

To test whether the results found in the preceding paragraphs hold up under different assumptions and different econometric specifications a number of robustness checks have been performed. First of all, in recognition of the fact that unemployment spells do not

necessarily end in employment but could also end in inactivity, competing risks specifications are estimated. Furthermore, to types of specifications (Model 1a with fully flexible baseline and Model 2a with logarithmic baseline) are used for the baseline hazard and where computationally viable we also estimated specifications with an 'unobserved heterogeneity' term (Models 2a and 2b respectively) to check whether the results found in the earlier results (Tables 7 and 8) could be attributed to unobserved individual differences. Separate analyses are done for men and women. The results are presented in Appendix B.

The results turn out to be rather robust in many aspects. The main finding, that temporary work prior (either directly or in the preceding three years) to an unemployment spell does not lead to shorter unemployment spells, is found in all of the specifications, even for the unemployment spells that end in inactivity. The only significant result in all of the specifications was a negative impact of a temporary job directly prior to the spell of unemployment on the hazard rate out of unemployment to employment for German men. This is consistent with the finding in the specification presented earlier (see Table 7).

In general not many differences can be found between the specifications in- or excluding an unobserved heterogeneity term. Where inclusion of unobserved heterogeneity was computationally feasible, it turned out not to be significant. This would imply that the set of explanatory variables chosen for the explanation of unemployment duration is rather adequate.

From the results in Appendix B it is also confirmed that duration dependence is only relevant for the German labour market. In the logarithmic specifications the duration effect 'Log of duration' turns out to be significantly negative, which is consistent with the findings for the fully flexible specifications.

In general the results for the British data seem somewhat less robust than the results for the German data, which comes as no surprise given the considerably lower number of observations on unemployment spells in Britain over the 1991-2001 period.

In conclusion, it seems fair to say that the results presented in paragraph 6.6 are robust findings that do not change considerably when another econometric specification is chosen.

Summary, conclusions, and further research

In this paper we have analysed unemployment duration among men and women in Great-Britain and Germany in the 1990s using appropriate and nationally representative data sets, the British Household Panel Survey and the German SOcioEconomic Panel, respectively.

The data show that unemployment is much more prevalent in Germany and median duration of unemployment spells, at 6 months, is longer than in Great Britain, where it is 3.5 months.

Much of the duration differential could be attributed to previous labour market experience, particularly in temporary employment. On average workers with previous experience in temporary work tend to have shorter spells of unemployment in both Germany and Great-Britain in accordance with the theories presented in this paper.

A multivariate analysis in a discrete time independent competing risk framework with flexible baseline hazard rates was used to test these results. These suggest that marked differences exist between the German and British labour market. Firstly, the estimated baseline hazard rates suggest that duration dependence is much more important for unemployment spells in Germany than in Great-Britain. This is probably due to the more extensive unemployment benefit system in Germany.

Of equal importance to policy makers is the impact of previous unemployment experience. Secondly, for both countries, unemployment durations are clearly influenced by previous labour market history and especially with previous unemployment. This holds for both countries under investigation in this paper. The common finding that unemployment tends to repeat itself is once again confirmed.

Thirdly, parameter estimates for the indicators of prior temporary employment are found to have very little impact on the exit rates from unemployment for both men and women in both Germany and Great-Britain. Experience in temporary jobs should theoretically enable the worker to experience shorter spells of unemployment, especially when the temporary job is directly prior to this spell.

The results suggest that flexible labour market policies to reduce unemployment by embracing temporary work are potentially counterproductive in the sense that they will result in an increase in the number of spells of unemployment. Spells of unemployment that are just as long as 'normal' spells of unemployment. This could lead to a higher unemployment rate on the aggregate level, the opposite of what is aimed for by labour market flexibilisation policies.

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Table 1 – Temporary jobs in Great-Britain
(Percentage of employees, 1991-2001)

Year	*Permanent*	*Total temporary*	*No. of observations*
1991	87.91	12.09	5400
1992	89.24	10.76	5110
1993	88.69	11.31	5033
1994	87.43	12.57	5069
1995	87.49	12.51	5005
1996	86.66	13.34	5164
1997	87.47	12.53	5235
1998	88.47	11.53	5991
1999	90.59	9.41	8223
2000	91.50	8.50	8249
2001	91.29	8.71	9947

Source: BHPS, 1991-2001

Table 2 – Temporary jobs in Germany
(Percentage of employees, 1991-2001)

Year	*Permanent*	*Total temporary*	*No. of observations*
1991	89.47	10.53	7355
1992	88.89	11.11	6834
1993	89.17	10.83	6600
1994	89.33	10.67	6484
1995	85.19	14.81	6678
1996	85.81	14.19	6435
1997	85.19	14.81	6238
1998	85.41	14.59	6786
1999	84.02	15.98	6646
2000	85.83	14.17	11416
2001	84.84	15.16	9730

Source: GSOEP, 1991-2001

Table 3 Yearly transition probabilities (%) from temporary job in year t in Great Britain

Year t+1 Year t	Non Part.	Unemp.	Temporary	Permanent	No. of observations
1991	33.16	4.04	43.94	18.86	594
1992	30.43	3.80	47.28	18.48	552
1993	27.09	4.43	45.49	23.00	587
1994	31.39	4.29	40.31	24.01	583
1995	24.23	5.19	44.42	26.15	520
1996	30.27	3.96	42.16	23.60	555
1997	15.96	3.15	51.76	29.13	539
1998	14.32	3.91	44.14	37.63	768
1999	16.05	4.88	41.11	37.96	922
2000	16.27	3.35	46.05	34.33	836

Source: BHPS, 1991-2001

Table 4 Yearly transition probabilities (%) from temporary job in year t in Germany

Year t+1 Year t	Non Particip.	Unemp.	Temporary	Permanent	No. of observations
1991	9.70	5.91	48.94	35.45	1134
1992	7.71	8.45	49.12	34.73	1077
1993	8.44	10.80	47.01	33.76	1102
1994	8.09	8.69	56.47	26.75	1013
1995	7.38	10.75	54.17	27.69	1246
1996	6.06	11.11	57.24	25.59	1188
1997	7.55	11.45	56.13	24.86	1231
1998	7.73	7.80	55.94	28.52	1371
1999	9.31	9.17	54.93	26.60	1440
2000	11.23	8.25	51.21	29.31	2146

Source: GSOEP, 1991-2001

Table 5 Duration of unemployment with different 'flexible careers' (in months), Great-Britain

	Temporary job directly prior to unemployment spell	Permanent job directly prior to unemployment spell	Other spell prior to unemployment spell
Temporary job in last three years	Mean: 5.17 months Median: 3.02 months N=439	Mean: 4.86 months Median: 2.56 months N=135	Mean: 5.86 months Median: 3.52 months N=174
Not a temporary job in the last three years		Mean: 6.44 months Median: 3.39 months N=1021	Mean: 8.70 months Median: 4.80 months N=578
Average	Mean: 6.62 months Median:3.55 months N=2347		

Source: BHPS, own calculations

Table 6 Duration of unemployment with different 'flexible careers' (in months), Germany

	Temporary job directly prior to unemployment spell	Permanent job directly prior to unemployment spell	Other spell prior to unemployment spell
Temporary job in last three years	Mean: 7.90 months Median: 5 months N=1105	Mean: 7.26 months Median: 4 months N=270	Mean: 7.20 months Median: 5 months N=475
Not a temporary job in the last three years		Mean: 9.92 months Median: 6 months N=2096	Mean: 9.40 months Median: 6 months N=2123
Average	Mean: 9.04 months Median: 6 months N=6069		

Source: GSOEP, own calculations

Table 7: Germany, Discrete time proportional (PGM) hazard model
(effects on hazard rate out of unemployment, z-values in parentheses)
*Significance levels: ***: 1% ; **: 5% ; *: 10%*

Variables	Men	Women
Age	-0.086	-0.102
	(7.330)***	(7.710)***
Age squared	0.001	0.001
	(4.700)***	(5.250)***
Married	0.230	0.036
	(3.270)***	(0.480)
Child younger than 6 yrs	-0.264	-0.249
	(3.120)***	(2.450)**
Other HH income	0.000	0.000
	(1.450)	(0.200)
Years of schooling	0.029	0.035
	(2.580)**	(2.540)**
Temp. job in last 3 yrs	-0.026	0.020
	(0.330)	(0.220)
Unemp. In last 3 yrs	-0.833	-0.950
	(8.480)***	(8.760)***
Perm. job in last 3 years	-0.058	0.108
	(0.870)	(1.460)
Temp. prior to unemp.	-0.256	0.053
	(3.290)***	(0.640)
Duration of prev. empl.	0.000	0.000
	(0.140)	(0.170)
Non-native	-0.333	-0.166
	(4.240)***	(1.750)*
Level of unemployment	0.035	0.017
	(1.460)	(0.660)
Number of observations	15937	15975
Log likelihood (-0.5*Deviance)	-4187.983	-3731.42

Table 8: Great Britain, Discrete time proportional (PGM) hazard model
(effects on hazard rate out of unemployment, |z|-values in parentheses)
*Significance levels: ***: 1% ; **: 5% ; *: 10%*

Variables	Men	Women
Age	-0.062	-0.061
	(3.190)***	(2.380)**
Age squared	0.001	0.001
	(2.490)**	(1.940)*
Married	0.500	0.314
	(3.900)***	(2.210)**
Child younger than 6 yrs	0.115	-0.052
	(0.900)	(0.340)
Other household income	0.000	0.000
	(2.310)**	(1.400)
Degree or above	-0.016	-0.305
	(0.080)	(1.130)
Teaching, nursing or other higher qualif.	-0.111	-0.062
	(0.660)	(0.260)
A level	0.134	-0.236
	(0.780)	(0.960)
O level	0.332	-0.177
	(1.930)*	(0.820)
Other qualif.	-0.145	-0.238
	(0.710)	(0.950)
Temp. job in last 3 yrs	0.088	-0.014
	(0.540)	(0.070)
Unemp. In last 3 yrs	-0.793	-0.702
	(4.260)***	(2.880)***
Perm. job in last 3 years	0.050	-0.028
	(0.440)	(0.200)
Temp. prior to unemp.	-0.074	-0.010
	(0.470)	(0.060)
Duration of prev. Empl.	0.000	0.000
	(2.590)**	(2.260)**
Non-native	-18.395	-0.949
	(0.000)	(1.270)
Unemployment level	-0.205	-0.113
	(6.330)***	(2.970)**
Number of observations	4518	2517
Log likelihood (-0.5*Deviance)	-1268.82	-840.518

Appendix I: Parameter estimations of flexible baseline

Table AI-1: Discrete time proportional (PGM) hazard model (effects on hazard rate out of unemployment, z-values in parentheses)

	Great Britain		Germany	
Dummy variables (month of unemployment spell)	Men	Women	Men	Women
d1	-0.101	-0.068	-0.598	-0.445
	-(0.380)	-(0.170)	-(3.970)	-(3.000)
d2	0.280	0.342	-0.660	-0.798
	(1.100)	(0.880)	-(4.220)	-(4.830)
d3	0.514	0.056	-0.708	-0.845
	(2.020)	(0.140)	-(4.400)	-(4.900)
d4	0.273	-0.433	-0.785	-1.250
	(0.990)	-(0.980)	-(4.680)	-(6.220)
d5	0.082	0.301	-0.805	-1.200
	(0.280)	(0.730)	-(4.640)	-(6.030)
d6	0.308	-0.070	-0.890	-0.971
	(1.090)	-(0.160)	-(4.850)	-(5.090)
d7	0.475	0.479	-1.228	-0.915
	(1.640)	(1.150)	-(5.990)	-(4.800)
d8	0.442	-0.233	-0.925	-0.743
	(1.480)	-(0.480)	-(4.830)	-(4.020)
d9	0.512	0.498	-0.851	-0.572
	(1.690)	(1.120)	-(4.400)	-(3.190)
d10	-0.124	-0.281	-0.737	-0.815
	-(0.320)	-(0.520)	-(3.870)	-(4.060)
d11	0.261	-0.474	-0.942	-0.985
	(0.740)	-(0.830)	-(4.470)	-(4.500)
d12	0.181	-0.070	-0.412	-0.454
	(0.480)	-(0.130)	-(2.240)	-(2.450)
d13	0.064	0.525	-0.630	-0.668
	(0.160)	(1.100)	-(3.100)	-(3.240)
d14	-0.530	-0.929	-0.593	-0.601
	-(0.980)	-(1.170)	-(2.860)	-(2.850)
d15	-1.146	-1.590	-1.144	-0.952
	-(1.550)	-(1.490)	-(4.480)	-(3.830)
d16	0.524	-0.840	-0.793	-1.195

	(1.390)	-(1.050)	-(3.380)	-(4.260)
d17	0.632	-0.853	-1.335	-0.729
	(1.630)	-(1.070)	-(4.530)	-(3.040)
d18	0.246	-0.263	-0.954	-0.691
	(0.540)	-(0.390)	-(3.670)	-(2.880)
d19	0.383	0.330	-1.010	-0.843
	(0.890)	(0.580)	-(3.720)	-(3.170)
d20	0.039	-0.115	-1.143	-1.100
	(0.070)	-(0.170)	-(3.760)	-(3.560)
d21	-0.680	-0.116	-1.199	-0.869
	-(0.930)	-(0.170)	-(3.830)	-(3.100)
d22	0.300	1.029	-1.064	-0.508
	(0.560)	(1.960)	-(3.610)	-(2.040)
d23	-17.737	0.552	-0.915	-0.592
	-(0.010)	(0.820)	-(3.120)	-(2.170)
d24	-1.131	-0.456	-0.901	-0.262
	-(1.110)	-(0.430)	-(3.060)	-(1.070)
d25	-0.408	-0.333	-1.391	-0.558
	-(0.550)	-(0.310)	-(3.710)	-(1.990)
d26	0.036	-17.990	-1.235	-1.040
	(0.060)	(0.000)	-(3.470)	-(2.960)
d27	-0.890	-0.259	-0.626	-1.330
	-(0.870)	-(0.240)	-(2.190)	-(3.160)
d28	-0.950	-17.920	-1.101	-1.322
	-(0.930)	(0.000)	-(3.100)	-(3.120)
d29	-0.718	-18.017	-1.399	-0.714
	-(0.700)	(0.000)	-(3.290)	-(2.140)
d30	0.650	-18.051	-0.889	-0.921
	(1.310)	(0.000)	-(2.510)	-(2.490)
d31	-0.866	-0.079	-0.661	-0.352
	-(0.850)	-(0.070)	-(2.120)	-(1.180)
d32	-17.696	-17.964	-0.690	-0.659
	-(0.010)	(0.000)	-(2.030)	-(1.770)
d33	-17.607	0.475	-0.543	-0.506
	-(0.010)	(0.600)	-(1.670)	-(1.450)
d34	-0.520	-0.034	-0.495	-0.240
	-(0.510)	-(0.030)	-(1.520)	-(0.750)

d35	-17.674 -(0.010)	-17.865 (0.000)	-0.758 -(1.910)	-0.805 -(1.910)
d36	0.222 (0.300)	-17.928 (0.000)	-0.564 -(1.510)	-0.515 -(1.310)
d37	1.528 (3.510)	1.929 (3.450)	1.651 (8.630)	1.257 (6.210)
Number of observations	4518	2517	15932	15975

Appendix II: Results of competing risks estimation

Table AII-1: Competing risks hazard regressions for unemployment duration, *Men, BHPS data 1991-2001 (effects on hazard rate out of unemployment, z-values in parentheses)*

	Model 1a: With fully flexible Baseline (NUH)		Model 1b: With fully flexible Baseline (WUH)		Model 2a: With logarithmic Baseline (NUH)		Model 2b: With logarithmic Baseline (WUH)	
	To employment	To inactivity	To employment	To inactivity	To employment	To inactivity	To employment	To inactivity
Log of duration	♣	♣	♣		-0.043	0.163	*	*
					-(0.650)	(1.190)	*	*
Age	-0.076	-0.030	*	*	-0.075	-0.063	*	*
	-(2.760)	-(0.400)	*	*	-(2.830)	-(0.860)	*	*
Age squared	0.001	0.000	*	*	0.001	0.001	*	*
	(2.090)	(0.340)	*	*	(2.150)	(0.760)	*	*
Married	0.524	-0.041	*	*	0.509	0.013	*	*
	(3.000)	-(0.100)	*	*	(2.910)	(0.030)	*	*
Child younger than 6 years in household	-0.007	0.739	*	*	-0.005	0.614	*	*
	-(0.040)	(1.760)	*	*	-(0.030)	(1.530)	*	*
Other household income	0.000	0.000	* *	*	0.000	0.000	*	*
	(1.650)	(0.120)		*	(1.510)	(0.030)	*	*
Degree or above	0.071	0.253	*	*	0.075	0.349	*	*
	(0.250)	(0.390)	*	*	(0.260)	(0.540)	*	*
Teaching, nursing or other higher qualif.	-0.159	-0.059	*	*	-0.173	0.066	*	*
	-(0.680)	-(0.100)	*	*	-(0.740)	(0.110)	*	*
A level	0.193	0.892	*	*	0.166	0.951	*	*
	(0.820)	(1.400)	*	*	(0.710)	(1.500)	*	*
O level	0.123	0.900	*	*	0.073	1.018	*	*
	(0.530)	(1.580)	*	*	(0.320)	(1.800)	*	*
Other qualif.	-0.058	-0.704	*	*	-0.092	-0.609	*	*
	-(0.210)	-(1.000)	*	*	-(0.330)	-(0.870)	*	*
Temporary job in last 3 years	0.039	0.068	*	*	0.039	0.155	*	*
	(0.200)	(0.120)	*	*	(0.200)	(0.290)	*	*
Unemployed in last 3 years	-0.567	-0.781	*	*	-0.619	-0.856	*	*
	-(2.350)	-(1.620)	*	*	-(2.570)	-(1.820)	*	*
Standard job in last 3 yrs	0.181	0.089	*	*	0.159	0.129	*	*
	(1.180)	(0.280)	*	*	(1.040)	(0.420)	*	*

Temporary job directly	-0.141	-0.056	*	*	-0.138	0.054	*	*
prior to unemployment	-(0.670)	-(0.110)	*	*	-(0.660)	(0.110)	*	*
Duration of previous	0.000	0.000	*	*	0.000	0.000	*	*
employment	(1.960)	(0.210)	*	*	(1.920)	(0.190)	*	*
Belongs to ethnic group	-18.492	(dropped)	*	*	-15.293	(dropped)	*	*
	(0.000)		*	*	-(0.010)		*	*
Unemployment level	-0.134	-0.330	*	*	-0.126	-0.358	*	*
	-(2.860)	-(2.660)	*	*	-(2.750)	-(2.910)	*	*
Unobserved heterogeneity term								
Number of observations	2361	1180			2361	1180		

♣ ***Complete parameter estimations for flexible baseline available upon request***

Table AII-2: Competing risks hazard regressions for unemployment duration, Women, BHPS data 1991-2001 *(effects on hazard rate out of unemployment, z-values in parentheses)*

	Model 1a: With fully flexible Baseline (NUH)		Model 1b: With fully flexible Baseline (WUH)		Model 2a: With logarithmic Baseline (NUH)		Model 2b: With logarithmic Baseline (WUH)	
	To employment	To inactivity	To employment	To inactivity	To employment	To inactivity	To employment	To inactivity
Log of duration	♣	♣	♣		0.021	0.126	0.022	0.217
					(0.250)	(0.770)	(0.270)	(1.270)
Age	-0.037	-0.056	*	*	-0.038	-0.101	-0.040	-0.057
	-(0.830)	-(0.570)	*	*	-(1.200)	-(1.120)	-(1.610)	-(1.650)
Age squared	0.000	0.001	*	*	0.000	0.001	0.000	0.001
	(0.630)	(0.390)	*	*	(0.810)	(0.860)	(1.090)	(0.900)
Married	0.361	0.115	*	*	0.331	0.140	0.351	0.301
	(1.860)	(0.260)	*	*	(1.710)	(0.340)	(1.810)	(0.720)
Child younger than 6 years	-0.021	-0.109	*	*	-0.060	0.025	-0.078	0.180
in household	-(0.100)	-(0.220)	*	*	-(0.310)	(0.050)	-(0.390)	(0.360)
Other household income	0.000	0.000	*	*	0.000	0.000	0.000	0.000
	(0.730)	(0.690)	*	*	(0.790)	(0.760)	(0.740)	(0.440)
Degree or above	-0.291	-0.892	*	*	-0.264	-0.801	-0.239	-1.008
	-(0.730)	-(0.980)	*	*	-(0.670)	-(0.910)	-(0.610)	-(1.390)
Teaching, nursing or other higher	0.041	-0.067	*	*	0.003	0.111	0.013	-0.115
qualif.	(0.120)	-(0.080)	*	*	(0.010)	(0.140)	(0.040)	-(0.170)
A level	0.086	-1.406	*	*	0.031	-1.447	0.040	-1.602
	(0.260)	-(1.600)	*	*	(0.100)	-(1.700)	(0.120)	-(2.110)
O level	0.098	-1.250	*	*	0.110	-1.326	0.095	-1.536
	(0.330)	-(1.470)	*	*	(0.380)	-(1.580)	(0.330)	-(2.230)
Other qualif.	0.069	-1.719	*	*	0.038	-1.424	0.042	-1.966
	(0.200)	-(1.760)	*	*	(0.110)	-(1.510)	(0.120)	-(2.330)
Temporary job in last 3 years	0.326	-0.174	*	*	0.319	-0.362	0.333	-0.288
	(1.230)	-(0.280)	*	*	(1.240)	-(0.610)	(1.290)	-(0.480)
Unemployed in last 3 years	-0.950	-0.824	*	*	-0.794	-0.871	-0.782	-1.026
	-(2.530)	-(1.590)	*	*	-(2.180)	-(1.750)	-(2.140)	-(1.930)
Standard job in last 3 yrs	-0.388	0.087	*	*	-0.379	0.079	-0.359	0.080
	-(2.030)	(0.210)	*	*	-(2.040)	(0.190)	-(1.870)	(0.190)

Temporary job directly prior to unemployment	-0.244 -(1.140)	-0.246 -(0.490)	* *	* *	-0.208 -(0.990)	-0.122 -(0.250)	-0.243 -(1.140)	-0.242 -(0.460)
Duration of previous employment	0.001 (2.840)	0.000 (0.850)	* *	* *	0.001 (3.090)	0.000 (0.480)	0.001 (3.070)	0.000 (0.370)
Belongs to ethnic group	-0.429 -(0.420)	-1.456 -(1.180)	* *	* *	-0.373 -(0.360)	-1.263 -(1.070)	-0.347 -(0.340)	-1.615 -(1.370)
Unemployment level	-0.159 -(2.740)	0.021 (0.170)	* *	* *	-0.135 -(2.590)	-0.019 -(0.150)	-0.131 -(3.140)	-0.105 -(1.130)
Unobserved heterogeneity term							-15.210 -(0.110)	-14.777 -(0.030)
Number of observations	1185	655			1185	655	1185	655

♣ ***Complete parameter estimations for flexible baseline available upon request***

Table AII-3: Competing risks hazard regressions for unemployment duration, Men, GSOEP data 1991-200*1* *(effects on hazard rate out of unemployment, z-values in parentheses)*

	Model 1a: With fully flexible Baseline (NUH)		Model 1b: With fully flexible Baseline (WUH)		Model 2a: With logarithmic Baseline (NUH)		Model 2b: With logarithmic Baseline (WUH)	
	To employment	To inactivity	To employment	To inactivity	To employment	To inactivity	To employment	To inactivity
Log of duration	♣	♣	♣		-0.070 -(2.290)	0.304 (4.350)	-0.065 -(2.060)	0.306 (4.000)
Age	-0.104 -(7.440)	-0.123 -(4.310)	-0.105 -(8.270)	* *	-0.114 -(8.150)	-0.162 -(5.750)	-0.115 -(5.140)	-0.162 -(4.960)
Age squared	0.001 (5.460)	0.001 (3.400)	0.001 (6.040)	* *	0.001 (6.280)	0.002 (4.670)	0.001 (3.960)	0.002 (5.240)
married	0.288 (3.580)	-0.068 -(0.430)	0.290 (3.600)	* *	0.272 (3.350)	-0.078 -(0.500)	0.274 (3.350)	-0.077 -(0.430)
Child younger than 6 years in household	-0.274 -(3.040)	0.042 (0.160)	-0.269 -(2.980)	* *	-0.234 -(2.600)	-0.024 -(0.090)	-0.229 -(2.480)	-0.027 -(0.100)
Other household income	0.000 -(0.790)	-0.002 -(1.300)	0.000 -(0.780)	* *	0.000 -(0.480)	-0.002 -(1.330)	0.000 -(0.470)	-0.002 -(1.300)
Years of schooling	0.029 (2.330)	0.042 (1.640)	0.030 (2.410)	* *	0.023 (1.880)	0.034 (1.300)	0.024 (1.910)	0.034 (1.170)
Temporary job in last 3 years	-0.025 -(0.280)	-0.131 -(0.670)	-0.027 -(0.310)	* *	-0.009 -(0.100)	-0.076 -(0.400)	-0.011 -(0.120)	-0.091 -(0.440)
Unemployed in last 3 years	-0.730 -(6.870)	-1.683 -(6.060)	-0.727 -(6.860)	* *	-0.658 -(6.320)	-1.156 -(4.540)	-0.654 -(6.210)	-1.147 -(4.470)
Standard job in last 3 yrs	-0.012 -(0.160)	-0.438 -(2.640)	-0.016 -(0.210)	* *	-0.010 -(0.140)	-0.196 -(1.200)	-0.013 -(0.180)	-0.193 -(1.100)
Temporary job directly prior to unemployment	-0.242 -(2.800)	-0.295 -(1.520)	-0.252 -(2.900)	* *	-0.224 -(2.590)	-0.328 -(1.690)	-0.234 -(2.680)	-0.339 -(1.520)

Duration of previous employment	-0.002 -(0.960)	0.004 (1.030)	-0.002 -(0.940)	*	-0.002 -(0.780)	0.005 (1.230)	-0.002 -(0.720)	0.005 (1.260)
Belongs to ethnic group	-0.330 -(3.680)	-0.405 -(2.230)	-0.341 -(3.780)	*	-0.354 -(3.950)	-0.287 -(1.640)	-0.365 -(4.040)	-0.285 -(1.480)
Unemployment level	0.047 (1.680)	0.144 (2.520)	0.051 (1.870)	*	0.011 (0.430)	0.016 (0.320)	0.014 (0.330)	0.015 (0.230)
Unobserved heterogeneity term			-13.784 -(0.440)				-15.246 -(0.150)	-15.981 .
Number of observations	10918	4753	10918		10918	4753	10918	4753

♣ ***Complete parameter estimations for flexible baseline available upon request***

Table AII-4: Competing risks hazard regressions for unemployment duration, Women, GSOEP data 1991-2001 *(effects on hazard rate out of unemployment, z-values in parentheses)*

	Model 1a: With fully flexible Baseline (NUH)		Model 1b: With fully flexible Baseline (WUH)		Model 2a: With logarithmic Baseline (NUH)		Model 2b: With logarithmic Baseline (WUH)	
	To employment	To inactivity	To employment	To inactivity	To employment	To inactivity	To employment	To inactivity
Log of duration	♣	♣	♣		-0.037 -(1.050)	0.361 (5.390)	*	0.363 (5.220)
Age	-0.123 -(7.310)	-0.075 -(2.880)	-0.122 -(5.190)	*	-0.134 -(7.800)	-0.147 -(5.530)	*	-0.149 -(6.790)
Age squared	0.001 (5.450)	0.001 (1.510)	0.001 (3.940)	*	0.001 (6.130)	0.001 (4.160)	*	0.001 (5.180)
married	0.071 (0.770)	-0.018 -(0.120)	0.068 (0.710)	*	0.095 (1.030)	0.025 (0.170)	*	0.019 (0.130)
Child younger than 6 years in household	-0.259 -(2.250)	-0.027 -(0.120)	-0.254 -(2.120)	*	-0.261 -(2.260)	-0.015 -(0.060)	*	-0.057 -(0.240)
Other household income	0.000 (1.510)	0.000 -(0.630)	0.000 (1.520)	*	0.000 (1.460)	0.000 -(0.520)	*	0.000 -(0.520)
Years of schooling	0.032 (2.010)	0.045 (1.570)	0.031 (1.470)	*	0.026 (1.570)	0.035 (1.200)	*	0.034 (1.330)
Temporary job in last 3 years	0.043 (0.410)	-0.117 -(0.610)	0.046 (0.430)	*	0.032 (0.310)	-0.042 -(0.220)	*	-0.043 -(0.230)
Unemployed in last 3 years	-0.809 -(6.430)	-1.463 -(6.380)	-0.802 -(6.200)	*	-0.713 -(5.810)	-1.090 -(5.080)	*	-1.082 -(4.990)
Standard job in last 3 yrs	0.073 (0.840)	0.202 (1.360)	0.080 (0.880)	*	0.074 (0.850)	0.288 (1.970)	*	0.293 (1.920)
Temporary job directly prior to unemployment	-0.006 -(0.060)	0.162 (0.960)	-0.012 -(0.110)	*	0.034 (0.340)	0.217 (1.320)	*	0.223 (1.350)
Duration of previous employment	0.000 (0.190)	-0.002 -(0.460)	0.001 (0.240)	*	0.001 (0.240)	-0.001 -(0.190)	*	-0.001 -(0.210)

Belongs to ethnic group	-0.111	-0.274	-0.107	*	-0.118	-0.244	*	-0.240
	-(0.920)	-(1.610)	-(0.860)	*	-(0.990)	-(1.450)	*	-(1.470)
Unemployment level	0.034	0.022	0.032	*	0.003	-0.088	*	-0.083
	(1.060)	(0.440)	(0.840)	*	(0.090)	-(1.940)	*	-(1.490)
Unobserved heterogeneity term			-14.985					-15.901
			-(0.070)					.
Number of observations	10405	5437	10405		10405	5437		5437

♣ ***Complete parameter estimations for flexible baseline available upon request***