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Is a Temporary Job Better Than Unemployment? A Crosscountry Comparison Based on British, German, and Swiss Panel Data

Schmollers Jahrbuch – Journal of Applied Social Science Studies. Zeitschrift für Wirtschafts- und Sozialwissenschaften

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Suggested Citation: Gebel, Michael (2013): Is a Temporary Job Better Than Unemployment? A Cross-country Comparison Based on British, German, and Swiss Panel Data, Schmollers Jahrbuch – Journal of Applied Social Science Studies. Zeitschrift für Wirtschafts- und Sozialwissenschaften, ISSN 1865-5742, Duncker & Humblot, Berlin, Vol. 133, Iss. 2, pp. 143-155, https://doi.org/10.3790/schm.133.2.143

This Version is available at: https://hdl.handle.net/10419/292401

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#### Schmollers Jahrbuch 133 (2013), 143 – 156 Duncker & Humblot, Berlin

# Is a Temporary Job Better Than Unemployment? A Cross-country Comparison Based on British, German, and Swiss Panel Data

By Michael Gebel

#### Abstract

While many previous studies on temporary work have found disadvantages for temporary workers compared to workers with a permanent contract, this study makes the comparison to the alternative of unemployment. Applying a dynamic propensity-score matching approach based on British, German, and Swiss panel data, it is shown that taking up a temporary job increases the employment chances during the subsequent five years in Germany and the United Kingdom. Moreover, the chances of having a permanent contract remain higher and a persistent wage premium can be found. In contrast, no long-run advantages can be found in the case of the flexible Swiss labour market.

JEL Classification: C14, C41, J41, J60, J64

#### 1. Introduction

A large body of economic and sociological literature has shown that temporary contracts are associated with disadvantages as compared to permanent contracts (for a literature overview see, for example, Barbieri, 2009). While these studies make an "upward" comparison of temporary jobs to permanent ones, there is less research into the integrative power of temporary contracts for the unemployed, i.e. the "downward" comparison. This is surprising, as temporary jobs have been promoted as an instrument to improve the labour market integration of the unemployed. However, there are some notable exceptions. For example, there is evidence that in comparison to remaining unemployed, taking up temporary work increases employment chances in Italy (Barbieri/Sestito, 2008; Picchio, 2008), in Sweden (Korpi/Levin, 2001), and in Germany (Hagen, 2003; for the specific case of agency work, see Lehmer, 2012). According to De-Graaf-Zijl et al. (2011), fixed-term contracts shorten the unemployment duration in the Netherlands but they do not increase the fraction of unemployed workers becoming integrated into regular jobs. Thus, the previous evidence is ambiguous and it is limited to single-country studies.

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Against this background, our contribution to the literature will be threefold. First, based on German, British, and Swiss panel data, we investigate the consequences of taking up a temporary job for unemployed workers in an individual-level dynamic perspective looking both at the short-run and long-run effects. Second, the consequences are evaluated in a multidimensional perspective: both subsequent employment chances and the quality of subsequent jobs (in terms of chances of having a permanent contract and in terms of wages) are assessed in order to detect cumulative (dis-)advantages or potential trade-offs. Third, the cross-country comparative design will test whether we find similar effects across countries or whether effects vary according to the institutional and the economic conditions.

# 2. Theories and Hypotheses

Micro-level studies on temporary employment usually confront the entrapment and the integration perspective (e.g. Giesecke/Groß, 2003; Korpi/Levin, 2001). We will draw on these perspectives but focus the discussion on the "downward comparison" between accepting a temporary job versus remaining unemployed and continuing the job search. According to the entrapment perspective, temporary work is precarious work located in the secondary labour market connected with low wages, cycles of temporary contracts, and recurrent unemployment (Korpi/Levin, 2001). Furthermore, following signalling theories, unemployed workers who (re-)enter their professional life via temporary jobs might be viewed as a bad hire by prospective employers, inducing a stigmatizing signal (Hagen, 2003). Moreover, while unemployed individuals taking on a temporary job have to invest their time and resources into their job, unemployed individuals who reject such offers can allocate all their time and resources into searching for better jobs. Thus, one can expect that accepting a temporary job is coupled with persistently worse labour market prospects as compared to staying unemployed, i.e. continued search (for better jobs) (Hypothesis 1a).

The alternative *integration*/"stepping stone" perspective emphasizes that taking up a temporary position gives the unemployed, at least for a short time, the chance of gathering labour market experience. While periods of unemployment clearly undermine the accumulation of human capital, entering a temporary job may put a halt to human capital depreciation (Gagliarducci, 2005). Secondly, unemployed who enter temporary jobs may search more effectively while on-the-job for better and permanent jobs than in unemployment because they have access to social networks within the working community (Hagen, 2003). Similarly, job-shopping theory underlines the importance of work experience to gain expectations and information on better matching vacancies (Johnson, 1978). Thus, in contrast to the entrapment perspective, it is assumed

that on-the-job searches may be more effective than off-the-job searches. Thirdly, taking up a temporary job instead of staying unemployed may be a positive signal of employability, while remaining unemployed produces stigma effects. This directly contradicts the signalling argument of the entrapment perspective. In sum, we expect that taking up a temporary job instead of staying unemployed is associated with persistently better labour market prospects (*Hypothesis 1b*).

Whether the entrapment or the integration perspective dominates, depends on context conditions such as the nation-specific institutional and economic setting. In view of the strict protection of permanent jobs in Germany and the strong insider power through unions (OECD, 2012a), employers may use temporary jobs as a screening period such that temporary jobs may function as a necessary "stepping stone" into the rigid German labour market. Getting such a contract may act as positive signal of employability, particularly during the observation period, when unemployment rates were rather high in West Germany. In contrast, employment protection and unions are weaker and unemployment was lower in Switzerland and the UK, creating very flexible labour markets. Thus, Swiss and British employers do not have strong incentives to use temporary jobs as screening devices because they can easily dismiss newly hired permanent workers (Gebel, 2010). Moreover, getting only a temporary job in a flexible, low-unemployment labour market represents rather a negative than a positive signal. Hence, it might be a better strategy for the British and Swiss unemployed to continue their job search and directly access permanent jobs. This argument should especially apply to the Swiss case, where financial support of the unemployed is more generous and active labour market policy is more pronounced than in the UK (OECD, 2012b). In sum, we expect that the integration of unemployed workers via temporary jobs, works most effectively in Germany, followed by the UK and then Switzerland (Hypothesis 2).1

## 3. Data, Variables and Method

The analyses are based on comparable data of the British Household Panel Study (1991–2009), the German Socio-Economic Panel (1991–2009),<sup>2</sup> and the Swiss Household Panel Survey (1999–2009). Using monthly calendar information, an inflow sample of unemployed workers was followed up to five

<sup>&</sup>lt;sup>1</sup> Of course, the arguments just refer to the "downward comparison" of temporary jobs to unemployment. Regarding the "upward comparison", one could assume that, in comparison to the UK and Switzerland; German temporary workers are most disadvantaged compared to persons in permanent jobs due to the strong insider protection and labour market segmentation (e.g. Gebel, 2010).

<sup>&</sup>lt;sup>2</sup> We restrict the analysis to the case of West Germany due to strong East-West economic differences.

years after the exit of unemployment. Unemployed workers who hold any kind of job are treated as employed. The analyses are restricted to unemployed individuals aged 15–54, this is done in order to fade out the issue of retirement processes.

The event of interest for unemployed workers is entering temporary work versus remaining unemployed. Across all three surveys, temporary work is defined as any kind of work that is limited in time. In line with previous studies we define apprenticeship contracts as being in education and not as temporary work. Unfortunately, information about job characteristics such as the type of contract pertains to the time of the yearly interview. Hence, misclassifications might occur if there is a contract change between the month of unemployment exit and the survey month.<sup>3</sup> In terms of career outcomes we analyze both the probability of being employed and the subsequent job quality. The quality of future jobs is measured as the probability of holding a permanent contract and the natural logarithm of real hourly wages. We investigate the employment probability biannually and the job quality measures annually up to five years after unemployment exit.

We apply a dynamic propensity score matching approach (Sianesi, 2004) that estimates the propensity score based on a logistic hazard rate model. The central interesting event is entering temporary work after a certain elapsed unemployment time u (treatment group D=1) versus not taking up the temporary job at time u, remaining unemployed for at least one additional month (and searching for other jobs) (control group D=0). In the second step of matching, future outcomes of the unemployed who exit to temporary jobs are compared to the hypothetical situation of not accepting the temporary job at time u and staying unemployed for at least one additional month (Sianesi, 2004). The corresponding average treatment effect of the treated (ATT) is then defined as

(1) 
$$ATT_{t} = E(Y_{t}^{1} - Y_{t}^{0}|D = 1) \text{ for } t = u + 1, \dots, T$$

<sup>&</sup>lt;sup>3</sup> As the average time span between month of unemployment exit and month of interview is about 6 months, the number of misclassifications should be low because temporary contracts are on average longer. Furthermore, there is a state dependence in the contract status. The remaining biases are expected to cancel each other out: On the one hand, we will underestimate the incidence of extremely unsuccessful temporary contracts (ending quickly in non-employment) and we will underestimate the incidence of extremely successful temporary contracts (ending quickly in permanent jobs). Sensitivity analyses of a sub-sample, where the difference between the unemployment exit date and the interviewing date is less than three months, do not produce different results.

<sup>&</sup>lt;sup>4</sup> Unemployed exits to other absorbing states such as permanent contracts, re-entering education, becoming inactive or going into business for oneself are treated as right-censored events.

where outcomes  $\{Y_t\}_{t=u+1}^T$  are measured for the months  $t=u+1,\ldots,T$  after the exit from unemployment. The hypothetical situation of not entering a temporary job for those who took up a temporary job  $(Y_t^0|D=1)$  is approximated with similar individuals who remain unemployed for at least one additional month. Similarity means that we compare only unemployed persons who have similar chances of exiting to a temporary job at time u, given their observed characteristics X. Identification is based on the conditional independence assumption (CIA):

(2) 
$$Y_t^0 \perp D|X \text{ for } t = u, u+1, \dots, T$$

It postulates that, after accounting for differences in terms of observed characteristics X, the treatment group (D = 1) – in case of the absence of the treatment (i.e. in case of not taking up a temporary job at time u) – would experience the same subsequent career outcomes as the control group (D=0). Of course, if both groups still differ in terms of unobservables (such as motivational differences) even after accounting for observable differences X, results will be biased (Morgan/Harding, 2006). However, we account for observed differences in a flexible way by controlling semi-parametrically for several background characteristics and by estimating separate models for each country. Specifically we control for previous work and unemployment experiences. The recent labour market history of an individual is captured by the activity status before entering unemployment, which distinguishes between entries from education, from inactivity, and from employment to unemployment. Entries from employment are further distinguished according to the social class (EGP) position in the previous job. We also account for socio-demographic variables such as education, gender, marital status, presence of children in the household, citizenship as well as information on disability/health problems. Dummies for unemployment exit cohorts (5-year intervals) and regions will proxy for labour market conditions. All control variables are measured before the treatment of exiting unemployment. Summary statistics on control variables are provided in Table A1. Furthermore, compared to studies that compare temporary workers with permanent workers, who differ substantially in their work biographies, our study design of restricting the sample to unemployed workers should reduce the sample heterogeneity in terms of (un-)observed differences and, thus, increase the plausibility of the CIA.

Imposing a common support condition does not lead to the exclusion of treatment observations because all the treated can be matched due to the large number of available control observations in the monthly data set. We compared different matching algorithms and found rather consistent results but we decided for a 10-Nearest Neighbour matching (with replacement) because it outperforms the other algorithms in terms of balancing the observed covariates and reducing the mean standardized bias (Caliendo/Kopeinig, 2008).

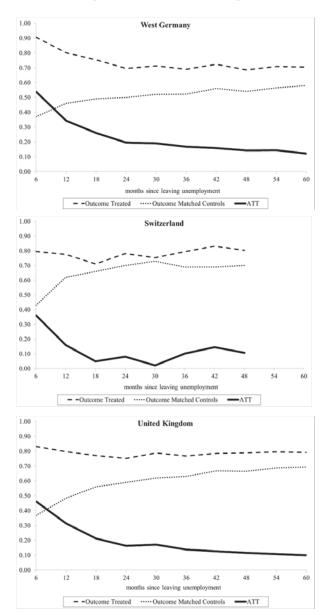
#### 4. Estimation Results

Descriptive analyses of unemployment exit dynamics reveal some interesting cross-country similarities and differences. Amongst the observed completed unemployment spells, 68.9% of all unemployed West Germans find a job, while the rest either exits to inactivity or education. The shares of unemployment-employment transitions are even higher in the more flexible British (75.8%) and Swiss labour market (77.3%). Focussing on the exits to employment, we can observe the highest transition rate to temporary jobs in West Germany (32%; N=1238), followed by Switzerland (26%; N=252) and then the UK (25%; N=1125). In comparison, the overall stock of temporary workers is much lower, e.g. about 5-7% in West Germany during the observation period (Gebel/Giesecke, 2009). Thus, temporary contracts play a central role in the employment entry dynamics amongst unemployed workers. However, the majority of unemployed workers who find a job enter into a permanent contract because the remaining employment exit routes of self-employment and noncontractual work are negligible. Regarding the country differences, employers hire unemployed individuals more often for temporary jobs in Germany as compared to Switzerland and the UK. This can be related to the more rigid labour market institutions in Germany.

Turning to the multivariate analyses, the propensities of exiting unemployment to temporary contracts are estimated separately by countries. Although the aim of this first step estimation is to produce estimates of statistical similarity, the results of the discrete time, piecewise constant logistic hazard rate model provide some indications about the determinants of exit from unemployment to temporary work. For example, the German results reveal that especially being young, non-German, or having lower or higher education raises the transition rates to temporary jobs for unemployed workers. In contrast, there are weaker age effects, no citizenship effects, and linear education effects in the UK. In Switzerland, particularly, unemployed individuals with general education find a temporary job.

In the second step we implement propensity-score matching based on the estimated propensity scores. Figure 1 displays the country-specific results with regard to the subsequent employment chances (during months 0 to 60) of the treatment group (i.e. the observed outcomes of the unemployed who entered a temporary job at time 0) and the matched control group (i.e. the estimated counterfactual outcome of having not entered a temporary job at time 0). The gap between both lines represents the ATTs.

<sup>&</sup>lt;sup>5</sup> The very long tables of propensity score estimation are available on request.



*Note:* BHPS 1991–2009, SOEP 1991–2009, SHP 1999–2009; own calculations. Results from NN (10)-matching. Swiss results for  $54^{th}$  and  $60^{th}$  month not reported due to small sample size.

Figure 1: Employment Chances in Subsequent Months

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To give a reading example of the German case: after 6 months, employment chances of the treated are 91% compared to 37% for the matched controls, resulting in an ATT of 54 percentage points. However, initially high ATTs should not be overstressed because the unemployed who entered a temporary job are already by definition in employment but they may quickly lose this initial advantage if the entrapment hypothesis applies. This may happen if they are displaced, or if the unemployed who remained unemployed (i.e., the matched controls) got access to (more stable) jobs. Actually, this pattern of convergence of the dashed line and the dotted line as well as the corresponding decline in ATTs can be observed in all countries. However, the central result is that ATTs remain positive and highly significant even after 60 months in Germany (12 percentage points) and the UK (10 percentage points). Thus, temporary employment seems to lead to a long-run integration into employment in Germany and the UK, which supports the integration perspective according to Hypothesis 1b. In contrast, there is less evidence for the integration hypothesis in Switzerland because the employment advantages quickly diminish and become insignificant after the first year. This is mainly related to matched controls quickly finding a job, which shows those remaining unemployed for an additional month are also quickly integrated into the flexible Swiss labour market. Nevertheless, ATTs do not turn negative during the observation period, such that we also do not find any evidence for the segmentation perspective (Hypothesis 1a) in Switzerland. Regarding country differences, finding the strongest integration potential in West Germany and the weakest (no long-run effects) in Switzerland is in line with our country order hypothesis 2.

While the analysis of overall employment chances provides some first insights, it tells us nothing about job quality. Table 1 presents figures for one central job quality dimension: whether temporary employment increases chances of having a permanent contract in subsequent years. We already find significantly positive ATT for Germany and the United Kingdom in the first year after the unemployment exit. Interestingly, this (significant) advantage further increases during our observation window. Obviously, temporary employment seems to be an effective route to permanent employment for the unemployed, i.e., it is a stepping-stone towards permanent jobs. Again, we find smaller and insignificant effects for Switzerland. Thus, taking up a temporary job has neither a long-term integrative nor a disintegrative effect in Switzerland. Finding the weakest (or, more specifically, no) effects for Switzerland, again supports hypothesis 2 on cross-country differences.

<sup>&</sup>lt;sup>6</sup> Due to space limitations only ATTs are reported. Full results on outcomes of treated and matched control are available on request.

Switzerland West Germany United Kingdom ATT ATT (s.e.) (s.e.) ATT (s.e.) T+10.062 (0.017)-0.093(0.043)0.073 (0.021)T+20.137 (0.021)-0.002(0.053)0.079 (0.020)T+30.099 (0.021)0.026 (0.064)0.096 (0.019)T+40.109 (0.023)0.077 (0.074)0.090 (0.024)T+50.128 (0.023)0.113 (0.020)

 ${\it Table~1}$  Chances of Having a Permanent Contract in Subsequent Years, ATT by Country

*Note*: BHPS 1991–2009, SOEP 1995–2009, SHP 1999–2009; own calculations. Results from NN (10)-matching. Standard errors are bootstrapped with 200 repetitions.

Table 2
Log Wage Effects in Subsequent Years, ATT by Country

	West Germany		Switz	erland	United Kingdom	
	ATT	(s.e.)	ATT	(s.e.)	ATT	(s.e.)
T+1	0.108	(0.019)	0.037	(0.061)	0.065	(0.020)
T+2	0.096	(0.021)	0.046	(0.058)	0.053	(0.021)
T+3	0.114	(0.023)	0.051	(0.075)	0.055	(0.022)
T+4	0.084	(0.028)	0.031	(0.088)	0.076	(0.024)
T+5	0.082	(0.033)	-	-	0.090	(0.024)

*Note:* BHPS 1991–2009, SOEP 1991–2009, SHP 1999–2009; own calculations. Results from NN (10)-matching. Standard errors are bootstrapped with 200 repetitions.

Table 2 continues the analysis of subsequent job quality in terms of wages. We restrict the analyses to those treated and controls that are employed (either in a permanent or temporary job) at the respective subsequent year of investigation. Our results from the previous job quality analysis are mainly confirmed. For Germany and the United Kingdom significant wage advantages can be found during the subsequent five years. Thus, taking up a temporary job does not only provide employment advantages and a stepping-stone towards permanent jobs but it also pays off. In Switzerland, again, effects are weaker and, probably due to the small Swiss sample size, effects are not significant. In general, even for the Swiss case, we find that taking up a temporary job instead of

<sup>&</sup>lt;sup>7</sup> For example, at T+3 we analyze only treated and controls who have a job at this time point. We do not assign zero wages to those who are not employed in order to estimate the wage effects net of being employed at T+3.

<sup>&</sup>lt;sup>8</sup> One might expect that the Hartz reforms may have changed the effects in Germany. However, sensitivity analyses show that results are quite robust across time in Germany.

continuing to search for a job (and successfully finding one) is not associated with wage disadvantages.

#### 5. Conclusion

Using British, German, and Swiss panel data we analysed the integrative power of taking up a temporary job for unemployed workers aged 15–54 as compared to the situation of remaining unemployed and searching for another job. Applying a dynamic propensity score matching approach we find that German and British unemployed workers, who take up a temporary job have higher employment chances, higher chances of getting a permanent jobs, and higher wages during the subsequent five years of their working careers. Inversely, there is neither support for the integration perspective nor for the entrapment perspective for Swiss unemployed workers, i.e. it does not make any difference whether a Swiss unemployed worker enters a temporary job or continues the job search. One should also emphasize cross-national similarities: many unemployed individuals (re-)enter employment via temporary jobs and there is no evidence that these jobs harm the employment career as compared to the counterfactual situation of continuing the job search.

Finally, two caveats of the analyses should be mentioned. First, despite using a rather homogeneous sample and controlling for observed differences in a detailed and flexible way, we cannot exclude biases due to selection on unobservables. Second, our analysis does not take general equilibrium effects into account. Despite finding an integration perspective for unemployed workers who take up a temporary job, the overall unemployment rate may not decline via temporary employment if substitution effects dominate job creation effects.

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7. Appendix

Table A1

Descriptive Statistics for Treatment (D=1) and Control Observations (D=0)<sup>a)</sup>

	West Germany		Switzerland		United Kingdom	
	D=0	D=1	D=0	D=1	D=0	D=1
	N=76571	N=1238	N=8690	N=252	N=88621	N=1125
Unemployment duration						
1 month	0.09	0.16	0.17	0.39	0.14	0.20
2 months	0.08	0.12	0.12	0.17	0.11	0.19
3 months	0.07	0.11	0.10	0.08	0.09	0.14
4–6 months	0.17	0.20	0.23	0.14	0.20	0.23
7–9 months	0.12	0.13	0.16	0.09	0.14	0.10
10-12 months	0.09	0.09	0.10	0.08	0.09	0.06
>12 months	0.38	0.19	0.12	0.05	0.15	0.07
Socio-demographics						
Age 15-24	0.18	0.25	0.27	0.35	0.37	0.43
Age 25-34	0.28	0.37	0.18	0.26	0.26	0.24
Age 35-44	0.27	0.24	0.31	0.22	0.22	0.22
Age 45-54	0.27	0.14	0.24	0.16	0.15	0.11
Female	0.48	0.46	0.63	0.58	0.38	0.39
Native	0.70	0.79	0.78	0.86	0.95	0.97
Married	0.52	0.45	0.38	0.19	0.45	0.45
Children in household b)	0.35	0.32	0.48	0.33	0.16	0.11
Disability/health problems <sup>c)</sup>	0.11	0.06	0.33	0.26	0.03	0.01
Education						
Lower secondary	0.35	0.22	0.18	0.13	0.37	0.23
Lower secondary + vocational	0.30	0.31	0.05	0.02	_	_
Intermediate secondary + vocational	0.17	0.20	0.34	0.31	0.10	0.10
Intermediate secondary	0.06	0.04	0.01	0.02	0.14	0.13
Upper secondary	0.01	0.02	0.12	0.19	0.06	0.07
Upper secondary + vocational	0.04	0.06	0.03	0.03	0.06	0.08
Lower tertiary	0.02	0.04	0.11	0.11	0.18	0.19
Higher tertiary	0.05	0.10	0.15	0.19	0.09	0.20
Status before unemployment						
Education <sup>d)</sup>	0.23	0.24	_	_	0.16	0.18
Inactivity	0.16	0.07	0.41	0.31	0.20	0.09
Higher service (EGP I)	0.02	0.04	0.08	0.08	0.03	0.06
Lower service (EGP II)	0.05	0.07	0.10	0.17	0.04	0.06
Routine clericals/service/sale (EGP III)	0.08	0.10	0.14	0.16	0.07	0.11
Self-employed (EGP IV)	0.02	0.02	0.01	0.02	0.03	0.02

	West Germany		Switzerland		United Kingdom	
	D=0 N=76571	D=1 N=1238	D=0 N=8690	D=1 N=252	D=0 N=88621	D=1 N=1125
Foreman, skilled manual (EGP V+VI)	0.11	0.11	0.05	0.04	0.08	0.09
Semi-/unskilled worker (EGP VII)	0.17	0.14	0.06	0.06	0.14	0.20
Employed + missing EGP	0.17	0.21	0.15	0.16	0.24	0.20
Labour market experience (in years)						
Employment experience	11.31	8.85	6.90	6.03	3.09	3.43
Unemployment experience	2.62	1.49	1.15	0.87	1.68	0.99

*Note:* BHPS 1991–2009, SOEP 1991–2009, SHP 1999–2009; monthly data; own calculations. <sup>a)</sup> Sample means of micro-level control variables for treatment (D=1) and potential control observations (D=0) by country on a monthly base. Macro-level control variables (regions and unemployment exit cohorts) not reported. <sup>b)</sup> Germany, Switzerland: whether child in household, UK: whether responsible for child in household. <sup>c)</sup> Germany: registered disability or limited capability of gainful employment; Switzerland: self-assessed disability or long-term health problems; UK: registered disability. <sup>d)</sup> Switzerland: Status "education" before unemployment included in status "inactivity" before unemployment.