



Low Pay Transitions: Are Working Welfare Recipients More Likely to Leave Low-paid Employment?

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Abstract

A substantial literature on the determinants of transitions out of low paid work provides evidence on the influence of personal characteristics, previous low pay experience and job characteristics. However, the receipt of social assistance has previously not been considered, although it may influence the probability of moving up the earnings distribution in the form of labour market measures offered by the job agency but also in a negative way through scaring or locked-in effects. This paper uses a large representative panel data set for the years 2007-2011 to investigate the dynamics of low pay in Germany. We find that welfare recipients are more likely to stay in low paid jobs or to become unemployed than low-paid workers without welfare. Welfare receipt is highly correlated with personal and other characteristics which unfavourably affect labour market success of low paid workers. We further estimate a dynamic random effects probit model of low pay persistence to analyse these welfare/non-welfare differences. The results do not point out to a significant effect of welfare receipt after controlling for various individual characteristics. We find only weak evidence for the importance of the duration of previous welfare receipt, which seems to have a positive effect on low pay persistence.

FIRST DRAFT

– PLEASE DO NOT QUOTE –

1 Introduction

The low-wage sector in Germany has been rising since the 1990s and is in comparison to other European countries rather high (Rhein, 2013; Kohn, 2006; Gernandt and Pfeiffer, 2006). In 2005 about 18 percent of all fulltime working dependent employees worked in low paid jobs and earned less than two thirds of the median hourly wage (Grün and Rhein, 2007). In 2010 the share of all employees whose wage was below the low wage threshold amounted to 24 percent (Rhein, 2013). An important aspect of an increasing low-wage sector is the upward mobility of low-wage workers. For social policy it is relevant to know whether low-wage earners mainly stay in low-wage employment or whether these jobs are a stepping stone to higher paid employment and which factors determine transitions out of low-paid jobs.

Previous studies on low-wage mobility identify several personal, job-related or institutional variables which increase up-ward mobility of low-wage earners. Stewart and Swaffield (1999) show for Britain that recently completed education, higher plant size and union coverage of low paid workers negatively affect the probability of staying low-paid. Cappellari (2007) analysis low-pay dynamics in Italy. His results indicate that female and low qualified workers have a higher risk of staying low-paid. Additionally, regional differences influence low pay transitions, whereby workers from the South of Italy have a higher probability of low-pay persistence. His results also reveal a higher employment instability of low-paid workers compared to other employees. Due to the increasing share of low paid workers in Germany, the issue of low pay has not only become an increasingly important policy issue, but has also received remarkable attention from researchers in Germany in recent years. Schnitzlein and Stephani (2012) show that young, male and higher educated low-wage workers have a higher upward mobility compared to all low-wage workers. Several studies provide empirical evidence, that employer characteristics also have a significant effect on the upward mobility of full-time working low paid employees (Schank et al., 2009; Mosthaf et al., 2011; Stephani, 2013). These studies conclude that firm size and employment structure matter for upward mobility, whereas the risk of low-pay persistence is higher in small plants and in plants with a high share of low-wage earners. Most of the afore-mentioned studies takes into account the potential state dependence associated with low-wage employment, i. e. the pos-

itive relationship between past low-wage and current low-wage employment. The influence of state dependence among the low-paid worker is a robust result across different studies. These findings indicate that the timing of policy interventions targeted at the low-paid is important and policy measures to improve upward earnings mobility are more effective at the beginning of low pay careers.

This study extends the literature on low pay dynamics by examining whether wage mobility patterns differ between low-paid workers and low-paid working social assistance (SA) recipients. So far, the potential influence of SA has not been in the focus of the relevant literature, although working SA recipients are an important and increasing group among all SA recipients and low-paid workers in Germany. While the number of the working-age SA recipients declined by 16 percentage points between 2007 and 2012, the number of working recipients increased by 8 per cent. In 2012 about one third of all SA recipients was in employment and almost all of them worked in low-paid jobs.

SA recipients in Germany do not only receive income benefits, they also have access to measures offered by their local job agency to promote earnings mobility. Especially in recent years, labor market measures were explicitly designed to improve the job quality of working SA recipients. Additionally, SA recipients receive job search support from their local job agency. Furthermore, they are legally obliged to search for other jobs if their currently earned income is insufficient to exit SA. These arguments suggest that the impact of SA receipt on upward wage mobility should be positive.

However, SA recipients could also have a lower upward wage mobility than workers without SA for several reasons. First, the current scheme of earnings disregards provides strong disincentives to search for a better paid job. Earned income above 100 Euro reduces received welfare benefits by 80 percent, wages above 1,000 Euro – 1,200 Euro for recipients with children – by 90 percent and earnings above 1,500 Euro by 100 percent. Because the amount of benefits depends on the size of the household, this argument is particularly relevant for working recipients with families, whereas the average single working recipient with a monthly wage above 1,000 Euro is not in need. Second, the activation principle of SA generates high pressure on SA recipients to find a job. Thus, there might be a lower selectivity in job acceptance

compared to other job seekers. Therefore, job matching might be lower and SA recipients could be more likely to accept low paid and instable jobs than other low-paid workers. Third, SA receipt may be associated with scarring effects. Usually scarring describes the negative relationship between unemployment experiences and future earnings and employment. In this context, unemployment does not only mean a loss of company-specific human capital and work experience, but also a decline in other general skills (Arulampalam et al., 2001). Mavromaras et al. (2013) analyze transitions between employment and unemployment. Their results indicate that previous low-paid employment increases the current unemployment probability relatively to previous high pay employment. Empirical evidence suggests that welfare receipt and the length of welfare receipt negatively affect self-esteem and self-efficiency of recipients (Elliott, 1996). Eggs (2013) analyses the association between unemployment, social assistance receipt and health. His results show that additionally to unemployment, SA receipt has a small and negative effect on subjective health. In conclusion, all these factors could negatively affect the job performance of working SA recipients and hence their upward wage mobility.

Since there is no clear prediction about the effect of SA receipt on upward wage mobility, the relationship has to be examined empirically. This paper uses a large representative household panel study for Germany and analyses transitions out from low paid employment with a special focus on potential different patterns between low-paid workers with and without SA receipt. The paper is organized as follows. Section 2 describes the data set. Section 3 presents descriptive results on low pay levels and SA recipients among the low-paid workers. Our econometric model is described in section 4. Section 5 presents and discusses the results of our econometric analysis. Section 6 concludes.

2 Data

The data used for this analysis stems from the first five waves of the yearly household panel study „Panel Arbeitsmarkt und soziale Sicherung“ (PASS). The PASS was implemented as a consequence of the major social policy reforms (“Hartz-reforms”)

in Germany.¹ Designed to evaluate social policy reforms, unemployment and poverty PASS features a dual sampling framework: PASS started with a sample of benefit recipients and a sample of the general population with an oversampling of households with a low socio-economic status in 2006/07 (Trappmann et al., 2011). In the first wave 18,954 individuals in 12,794 households have been interviewed. Half of them belonged to the social benefit recipient sample and to the population sample, respectively. Refreshment samples were drawn in each following year. PASS offers rich information about individuals and households socio-demographic background, education, labor market history, job-related variables and income. It further provides information about attitudes towards life and work, social integration or self efficacy. Table 1 shows our sample selection criteria for the calculation of the low pay threshold and the corresponding numbers of observations.

Table 1: Sample selection for the calculation of the low pay threshold

	Wave/Years					Total
	1/2006-2007	2/2007-2008	3/2008-2009	4/2010	5/2011	
All observations	18954	12487	13439	11768	15607	72255
∖. >64 years old	-2460	-1671	-1871	-1671	-2617	-10290
∖. in education	-2212	-1513	-1466	-1361	-1757	-8309
=	14282	9303	10102	8736	11233	53656
thereof						
...in employment	6901	5045	5721	5328	6902	29897
...dependent employees	5787	4346	4922	4614	6021	25690
...with valid information						
on earnings	5471	3151	4671	4356	5741	23390
...in regular employment	4253	3118	3696	3544	4734	19345

Source: Own calculations based on PASS, 2007-2011.

¹With the implementation of the so-called Hartz IV reform in 2005 a new social assistance legislation came into force in Germany, which combined the former systems of unemployment assistance and social assistance to a new means-tested social assistance programme for the long-term unemployed. Jacobi and Kluge (2007) give an overview of the aims and core elements of the Hartz reforms

We first exclude individuals who are older than 64 years or are currently not in education. Next, we focus on employed individuals and drop observations of individuals who are either self-employed, civil servants or in subsidized work. Individual hourly wages are derived from reported monthly gross earnings and actually worked weekly hours. Observations with missing information in one of the two questions are not considered in our analysis. Last we keep regular employed part- and full-time working individuals only and exclude individuals who are not regular employed and earn less than 400 EUR per month (*mini-jobber*). We end up with 19,345 observations across all five waves, which provide the basis for the calculation of the yearly low pay thresholds.

For the description of labor market transitions and the econometric analysis of yearly transitions out of low paid work, we further exclude observations of individuals not interviewed in the first wave and who do not participate in at least two following waves or with missing information in the following year. For the remaining individuals we define two labour market states. First, individuals below the annual low pay threshold belong to the low-paid workers. Secondly, individuals above the low pay threshold belong to the high-paid workers. We exclude individuals with transitions to states other than regular dependent employment or unemployment. This leads to an unbalanced panel with continuously observations for each individual. The estimation sample comprises 4,499 observations for the states low-paid and high-paid and over all five waves.

3 Descriptive analysis

We follow the literature and use two thirds of the gross hourly median wage to define the low pay threshold. Further, we calculate the median wage for eastern and western Germany separately according to wage differential and the different wage mobility patterns between East and West Germany (Schnitzlein and Riphahn, 2011). Table 2 shows the low pay thresholds and the shares of low-paid employees for each wave.

Table 2: Low pay threshold and employment

Wave/years	Low-pay threshold		Low-pay employment	
	East Germany	West Germany	East Germany	West Germany
	in Euro		in percent	
1/2006-2007	7.3	9.5	22	16
2/2007-2008	6.9	9.4	21	19
3/2008-2009	7.0	9.0	19	19
4/2010	6.9	9.2	17	18
5/2011	6.9	8.8	16	17

Source: Own calculations based on PASS 2007-2011.

The low-pay threshold increases only slightly over time as we use real nominal wages.²

On average about 4.4 (9.9) percent of all low-paid full- and part-time working employees in West Germany (East Germany) additionally receive social assistance benefits in each wave. The distribution of important personal and job-related characteristics of low-paid workers by SA receipt is reported in Table 3. Low-paid employees with SA receipt are significant but only slightly older than those without SA receipt. About 37 percent of working SA recipients have a foreign nationality, which is significantly higher than in the group without SA receipt. The proportion of high qualified worker declines distinctly with SA receipt. The share of employees with SA receipt and without a secondary degree is more than twice as high as it is for employees without SA receipt, whereas the relationship is reverse for an upper secondary degree and significantly more low paid employees without SA receipt have a vocational qualification. The lower qualification of working SA recipients is reflected in lower wages. Their average gross hourly wage amounts to only 6.14 Euro. Additionally, the job quality, measured in the shares of temporary worker, temporary working contracts or part time work, is significantly lower for this group. Low paid employees with SA receipt also report a significantly lower state of health and well being. In the two categories – satisfaction with standard of living and life – those employees who do not receive SA obtain higher values on an ordinal scale, whereas

²All wages are measured in 2007 prices.

Table 3: Distribution of personal characteristics of low paid employees by SA receipt

	Without SA receipt	With SA receipt
<i>Personal characteristics</i>		
Age (mean in years)	39***	38
Foreign nationality (percentage)	20.9***	36.8
No sec. degree (percentage)	3.4***	7.4
Lower secondary degree (percentage)	43.3	48.9
Intermediate secondary degree (percentage)	38.0	35.0
Upper secondary degree (percentage)	15.4**	8.8
No vocational qualification (percentage)	23.6***	37.4
Vocational Education (percentage)	67.5***	58.2
Tertiary degree (percentage)	8.9	4.4
<i>Subjective health and well being</i>		
Bad health (percentage)	15.2***	20.7
Notable mental problems (percentage)	12.1	17.6
Satisfaction with standard of living (mean score value, 1=dissatisfied, 10=satisfied)	6.9***	5.7
Rating of position within society (mean score value, 1=low, 10=high)	6.0***	5.1
General satisfaction with life (mean score value, 1=dissatisfied, 10=satisfied)	7.1***	6.5
<i>Job search during the past 4 weeks</i>		
Looking for a new job (percentage)	9.2***	14.4
Looking for an additional job (percentage)	2.3**	5.4
No job search (percentage)	88.5***	80.2
<i>Job related characteristics</i>		
Gross hourly wage (mean in Euro)	7.0***	6.14
Working part-time (percentage)	23.4***	42.3
permanent employment contract	84.4*	77.4
temporary worker	7.0*	14.6
<i>Observations</i>		

Source: Own calculations based on PASS, 2006-2011, average values. Stars denote rejection of the t-test on equal means between both groups on the significance levels * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

one stands for dissatisfaction and ten for highly satisfied. They also claim a higher social position within the society. Concerning on-the-job search, Table 3 reports

the individual activities during the past four weeks. Again, significant differences between both groups become visible. A higher share of low paid employees with SA was looking for a new or an additional job during the past four weeks. This difference could partially be explained by the regulations of SA. In general, working SA recipients whose earned income is below the legally defined minimum income are required to search for another job. So far, the descriptive analysis provides evidence for a high correlation between SA receipt and personal characteristics which in general unfavorably affect labor market success – e. g. wages, job stability or upward wage mobility. It will be interesting to see if SA receipt has an effect on wage mobility after controlling for these factors in the multivariate analysis.

Table 4 shows the transition between the three labor market states high paid, low paid and unemployed by SA receipt. The Table clearly shows different patterns for low-paid workers with and without SA.

Table 4: Transitions between labor market states by SA receipt

Status at t-1	Status at t (percentages)			Observations
	Low-paid	High-paid	Unemployed	
<i>Without SA</i>				
Low-paid	56.7	32.9	10.3	1,913
High-paid	5.1	91.3	3.7	6,601
Unemployed	4.9	10.3	84.8	3,460
<i>SA recipient</i>				
Low-paid	64.9	15.4	19.7	530
High-paid	19.0	69.0	12.0	279
Unemployed	7.1	3.5	89.4	6,852

Source: Own calculations based on PASS, 2006-2011.

The share of low-paid employees who stay low-paid in the following year is about 8 percentage points higher for those employees who receive SA (64.9 versus 56.7 percent). Also upward wage mobility is distinctly lower for this group. Less than half of low-paid employees work in a job above the low pay threshold in the next year (15.4 versus 32.9) and the risk to become unemployed in the following year is almost twice as high as it is for those without SA (19.7 versus 10.3). In comparison to unemployed individuals, the high-paid employees without SA show the highest

persistence in their employment status. About 90 percent of them work in a job above the low-pay threshold in the next year, too.

4 The Econometric Model

The econometric analysis focuses on the observed labor market states high-paid and low-paid. We define the observable outcome variable, Y_{it} , as a dichotomous variables which takes on the value one if employee i works below the low-pay threshold in the respective year and which is zero for high-paid employees.

Following the literature on low-pay dynamics, we estimate a customary dynamic random effects probit specification for the underlying latent probability to be low-paid in year t , Y_{it}^* :

$$Y_{it}^* = \gamma Y_{i,t-1} + \beta' X_{it} + \phi SA_{it-1} + \alpha_i + \nu_{it}, \quad (1)$$

where $Y_{i,t-1}$ is the lagged endogenous variable, X_{it} is a set of control variables, α_i is a time-invariant individual specific error-term which captures individual unobserved heterogeneity. ν_{it} is an idiosyncratic error-term that is assumed to be distributed $\mathcal{N}(0, \sigma_\nu)$. The parameter ϕ measures the effect of the receipt of social assistance in the previous period SA_{t-1} .

The vector of control variables includes individual characteristics such as sex, age, levels of education and two dummy variables which indicate if the individual is married in t and has a foreign nationality. The education variable is an indicator variable which combines individual information on secondary and tertiary education as well as information on vocational status. We use four levels of education. We do not take into account measure of life satisfaction or social status since these variables are potentially endogenous. To capture the individual health status we use the number of doctor visits during the last year. Another dummy variable takes on the value one if the individual was looking for a new job during the last for weeks. We further include a dummy variable indicating the receipt of social assistance in the previous year, a dummy variable for living in east Germany and the regional unemployment rate. Dummy variables for part-time work, working with

an temporary employment contract or working as a temporary capture the potential influence of job characteristics.

Equation 1 takes into account that the current individual labor market state in t is not only influenced by observed characteristics measured in X_{it} but also by the previous labor market state $Y_{i,t-1}$. Hence, γ measures the persistence of low-paid work. It is assumed, that previous low pay experience raises the probability to stay in low-paid work. The underlying mechanism are the loss of human capital or a bad signalling induced by low-paid employment. The inclusion of the lagged dependent variable leads to potential biased estimates of the extent of state dependence, which is known as the initial conditions problem (Heckman, 1981). The initial condition is the initial individual employment state L_{i0} at the beginning of the data generating process and does not coincidence with the first observed employment state L_{i1} in our data. Because it is likely that the initial employment state is influenced by unobserved time-invariant characteristics, the lagged endogenous variable $Y_{i,t-1}$ is correlated with α_i and the extent of state dependence would be overestimated. We follow the approach proposed by Wooldridge (2005) to solve the initial conditions problem and model the distribution of the unobserved error term α_i conditional on the initial value $Y_{i,0}$ and explanatory variables. Another concern about the random effects model is the strong assumption that the individual time-invariant error term α_i is uncorrelated with the individuals observable variables X_{it} . To control for this potential correlation, we add the mean of the time-varying explanatory variables over the sample period for each individual X_i to the model of α_i (Mundlack, 1978; Chamberlain, 1984). These so-called Mundlack terms should capture the potential correlation between the explanatory variables and α_i .³ Together, we have

$$\alpha_i = \theta Y_{i,0} + \delta x_i + \sigma_i, \quad (2)$$

where σ_i is normally distributed and independent of X_{it} and ν_{it} for all i, t . Substituting equation (2) in (1) leads to our final model for the latent low-pay probability:

³We include the means of the explanatory variables age, number of doctor visits and unemployment rate and SA-receipt. Not considered are disability and job search because these variables show little variation over time.

$$Y_{it}^* = \gamma Y_{i,t-1} + \beta' X_{it} + \phi SA_{it-1} + \theta Y_{i,0} + \delta x_i + \sigma_i + \nu_{it}. \quad (3)$$

5 Results

Table 5 shows the estimated marginal effects for different specifications. We first estimate a simple probit model pooled over all waves (Model 1). In Model 2 we make use of the panel structure of our data and estimate a random effects probit model. In Model 3 we add the Mundlak terms and estimate the specification shown in equation 3. In Model 4 we test for different interactions between SA receipt and control variables. We also include a different measure for SA receipt in this model (SA rate). The variable *SA rate* describes the ratio between earned wage income and the total need of the household. We assume a negative relationship between SA rate and potential locked-in effects, since the probability to exit SA due to wage increases is higher for recipients with a high SA rate. Hence, the effect of SA rate on the probability to stay low-paid should be negative. The last row in Table 5 shows the proportion *Rho* of the total variance contributed by the individual panel-level variance component σ_i . In all three panel specifications (Model 2 - Model 4) the null hypothesis that $Rho = 0$ is clearly rejected, which shows the importance of controlling for unobserved heterogeneity.

The marginal effect of the low pay status in the previous year is positive and highly significant in all four models. State dependence seems to be one of the key determinants of low pay dynamics, which confirms prior findings in the literature. This result is interesting in the context of working SA recipients. It shows that it is necessary to intervene early in the low-pay career to improve upward wage mobility. Therefore, labour market policies targeted to SA recipients should also explicitly focus on recipients who take up low paid work and offer further assistance. The coefficient of the initial condition is also highly significant and positive in all models. Being low-paid in the first wave 2006/2007 ($t = 0$) increases the probability of staying low-paid in the subsequent years. This result confirms the need to consider the endogeneity of the initial condition in the estimation.

Table 5: Estimation Results

	Model (1)	Model (2)	Model (3)	Model (4)
<i>Individual low pay experience</i>				
Low Pay _{t-1}	0.197***	0.0744***	0.0730***	0.0672***
Low Pay _{t0}	0.0883***	0.150***	0.143***	0.152***
<i>Individual characteristics in t</i>				
Foreign nationality	0.00827	0.00977	0.00802	0.0105
Upper sec. degree (ref.: lower secondary)	-0.0587***	-0.0672***	-0.0635***	-0.0678***
Intermediate sec. degree (ref.: lower sec.)	-0.0126	-0.0159	-0.0131	-0.0163
Female	0.0226**	0.0281***	0.0271***	0.0274***
Age	-0.0106***	-0.0107***	-0.0152***	-0.0107***
Age(squared)	0.000126***	0.000127***	0.000134***	0.000126***
Number of doctor visits	0.00248**	0.00183*	0.00170	0.00174*
Disabled	-0.00998	-0.00605	-0.00703	-0.00699
Married	-0.0103	-0.00775	-0.00584	-0.00938
Unemployment experience (month)	0.000416**	0.000408**	0.000342**	0.000417***
<i>Individual characteristics in t-1</i>				
Job search	-0.0145	-0.0147	-0.0134	-0.0124
SA receipt	0.0146	0.0150	-0.0261	
SA rate				-0.000102
<i>Job characteristics in t-1</i>				
Permanent contract	0.00493	0.00311	0.00162	0.00375
Part-time employment	0.0282***	0.0199**	0.0189*	0.0231**
<i>Regional information in t</i>				
Unemployment rate	0.00477***	0.00450***	-0.00126	0.00456***
East Germany	-0.0108	-0.0106	-0.0175	-0.0103
<i>Individual averages across all waves for...</i>				
Age			0.00380	
Number of doctor visits			0.000480	
Unemployment rate			0.00633	
SA receipt			0.0813***	
<i>Interaction terms: SA receipt × ...</i>				
Low Pay _{t-1}				0.0412
Job Search				-0.00600
Part-time Employment				-0.0198
Observations	4,499	4,499	4,499	4,496
<i>Rho</i>		0.472***	0.474***	0.488***

*** p<0.01, ** p<0.05, * p<0.1. Wave dummies included in all models

Among the other individual characteristics, education is one of the most important variable. The probability to stay low-paid decreases significantly with the level of education compared to the reference group of no qualification, whereas the coefficient for medium qualified workers is not significant. This result is robust across all specifications. The probability to stay in low-paid work also decreases with age, but with an declining rate, which is indicated by the positive sign of age squared. However, having experienced long-lasting unemployment in the past – which is correlated positively with age – significantly increases the probability to stay low-paid. The number of doctor visits is significant and has the expected positive coefficient. The results do not yield to any significant effect for the coefficient of the dummy variable for disability. We do also not find significant differences between married and not married low-paid workers. The results for the individual characteristics measured in the previous year do not yield any significant effects at all. For SA recipients we do not find any significant differences in the probability to stay low-paid compared to workers without SA receipt, although the sign of the marginal effect in the first two models indicate a positive relationship. In Model 3 the effect becomes negative but the marginal effect of the average of SA receipt is positive and highly significant. Although the causal effect of this Mundlak term should be interpreted with caution due to the potential correlation with the random effects, we argue that this result could indicate that not only the receipt in t but also the duration of SA receipt is of importance. A possible explanation could be the loss of self-esteem and self-efficiency, which depends on the duration of welfare dependence. The marginal effect of the variable SA rate has the expected negative sign, implying that the probability to stay in low-paid work decreases with the SA rate as potential lock-in effects decrease. Nevertheless, the marginal effect is not significant. The effect of the regional unemployment rate is positive and significant in all but one model. After controlling for the regional unemployment, the dummy variable for living in east Germany is negative but insignificant in all specifications. The interaction terms in Model 4 do not show any significant effects. The results indicate that the pattern of state dependence is homogenous across both subgroups, SA recipients and employees without SA receipt. Although SA recipients should have access to job-search support offered by the job agency, their job-search has no significant different effect on the probability to stay low-paid. Working part-time and receiving SA also has

no significant effect, although it could be speculated that lock-in effects are higher for this group.

6 Conclusion

The low-wage sector has been increasing in Germany during past decades and low pay dynamics have become an important policy issue. As a consequence, working recipients of social assistance are more and more in the focus of social policy. In this paper we analyse whether wage mobility patterns differ between low-paid workers and low-paid working social assistance (SA) recipients. The data used for this analysis stems from the first five waves of the yearly household panel study "Panel Arbeitsmarkt und soziale Sicherung" (PASS). The descriptive analysis shows that the group of SA receiving low-paid workers is particularly affected by low upward wage mobility and that this group requires special attention. The share of low-paid employees who stay low-paid in the following year is distinctly higher for those employees who receive additional social assistance. Also upward wage mobility is distinctly lower for this group. We find descriptive evidence for a high correlation between SA receipt and personal characteristics which in general unfavorably affect labor market success. In the econometric analysis we estimate a customary dynamic random effects probit specification for the underlying latent probability to stay low-paid. For SA recipients we do not find any significant differences in the probability to stay low-paid compared to workers without SA receipt. We find only weak evidence that the duration of SA receipt could have a negative effect on upward wage mobility. The key-determinants of upward wage mobility are state dependence and education, whereas no welfare/non-welfare differences become visible. Other determinants are job-search, part-time employment and education. Also unobserved heterogeneity is of importance. Education and job-search are factors which could be targeted by social policies. Because part-time employment reduces upward wage mobility, leaving marginal employment seems also to be an appropriate instrument to improve wage-mobility. The high effect of state dependence implies that policy measures to improve upward earnings mobility are more effective at the beginning of low wage careers.

References

- Arulampalam, W., P. Gregg, and M. Gregory (2001). Unemployment Scarring. *The Economic Journal* 111, 577–584.
- Cappellari, L. (2007). Earnings Mobility Among Italian Low Paid Workers. *Journal of Population Economics* 20(3), 465–482.
- Chamberlain, G. (1984). Panel Data. In Z. Griliches and M. D. Intriligator (Eds.), *Handbook of Econometrics*, Volume 2, pp. 1247–1318. Amsterdam: North Holland.
- Eggs, J. (2013). Unemployment benefit II, unemployment and health. Institute for Employment Research (IAB)-Discussion Paper No. 12/2013.
- Elliott, M. (1996). Impact of Work, Family, and Welfare Receipt on Women’s Self-Esteem in Young Adulthood. *Social Psychology Quarterly* 59(1), 80–95.
- Gernandt, J. and F. Pfeiffer (2006). Rising Wage Dispersion, After All! The German Wage Structure at the Turn of the Century. ZEW - Centre for European Economic Research Discussion Paper No. 06-019.
- Grün, C. and T. Rhein (2007). Niedriglohnbeschäftigung in Deutschland. IAB Forum 1/2007.
- Heckman, J. (1981). The Incidental Parameters Problem and the Problem of Initial Conditions in Estimating a Discrete Time-Discrete Data Stochastic Process. In C. F. Manski and D. McFadden (Eds.), *Structural Analysis of Discrete Data with Econometric Applications*, pp. 179–195. MIT Press, Cambridge.
- Jacobi, L. and J. Kluve (2007). Before and After the Hartz Reforms: The Performance of Active Labour Market Policy in Germany. *Journal for Labour Market Research* 40(1), 45–64.
- Kohn, K. (2006). Rising Wage Dispersion, After All! The German Wage Structure at the Turn of the Century. ZEW - Centre for European Economic Research Discussion Paper No. 06-031.

- Mavromaras, K., P. Sloane, and Z. Wei (2013). The Scarring Effects of Unemployment, Low Pay and Skills Under-utilisation in Australia Compared. IZA Discussion Paper No. 7440.
- Mosthaf, A., C. Schnabel, and J. Stephani (2011). Low-wage careers: Are there dead-end firms and dead-end jobs? *Journal for Labour Market Research* 43(3), 231–249.
- Mundlack, Y. (1978). On the Pooling of Time Series and Cross Section Data. *Econometrica* 46(1), 69–85.
- Rhein, T. (2013). Deutsche Geringverdiener im europäischen Vergleich. IAB-Kurzbericht 15/2013.
- Schank, T., C. Schnabel, and J. Stephani (2009). Geringverdiener: Wem und wie gelingt der Aufstieg? *Jahrbücher für Nationalökonomie und Statistik* 229(5), 584–614.
- Schnitzlein, D. D. and R. T. Riphahn (2011). Wage Mobility in East and West Germany. Bavarian Graduate Program in Economics (BGPE) Working Paper Series No. 114.
- Schnitzlein, D. D. and J. Stephani (2012). Lohnmobilität von jüngeren Geringverdienern in Deutschland. *Vierteljahreshefte zur Wirtschaftsforschung* 80(4), 13–30.
- Stephani, J. (2013). Does it matter where you work? * employer characteristics and the wage growth of low-wage workers and higher-wage workers. Institute for Employment Research (IAB)-Discussion Paper No. 4/2013.
- Stewart, M. B. and J. K. Swaffield (1999). Low pay dynamics and transition probabilities. *Economica* 66(261), 23–42.
- Trappmann, M., S. Gundert, C. Wenzig, and D. Gebhardt (2011). PASS: a household panel survey for research on unemployment and poverty. *Schmollers Jahrbuch. Journal of Applied Social Science Studies* 130(4), 609–622.
- Wooldridge, J. M. (2005). Simple solutions to the initial conditions problem in dynamic, nonlinear panel data models with unobserved heterogeneity. *Journal of Applied Econometrics* 20, 39–54.