

Voluntary Job Mobility and Earnings in Germany and the UK

1.0 Introduction

Studies of social stratification try to account for workers' positions in a labour market, the extent to which they can change these positions, and what the impact of such changes is in terms of outcomes at work (Brand, 2006; Kalleberg and Mouw, 2018; Cha, 2018; Kalleberg and Mastekaasa, 2001). A key debate in this literature revolves around whether mobility results from occupational and organisational sorting or skill acquisition and transfer (Kalleberg and Mouw, 2016; Cha, 2018; Gesthuizen and Dagevos, 2008; Gesthuizen 2009). A second debate revolves around the role of country specific institutions in shaping mobility (Hall and Soskice, 2001; Thelen, 2014; and DiPrete et al., 1997). This article contributes to both topics by exploring the association between voluntary job mobility and earnings in two different labour markets, Germany, and the UK.

Sociologists suggest that some labour market inequality can be attributed to continuous social processes, where time spent in the labour market, the firm, or the industry can account for large differences in earnings between workers (Spilerman 1977, Sørensen 1977, 1983, Stier & Grusky 1990, Rosenfeld 1992). However, they also recognise the importance of discrete processes like job mobility, occupational mobility and sudden changes in social status which can impact earnings and conditions at work but are not explained by continuous processes like experience. These discrete processes are an important part of the wider argument of occupational sorting (Kalleberg and Mouw, 2018; Kalleberg and Mastekasaa, 2002; Sørensen, 1977; Sørensen, 1983, 1984,. see also Thurrow's (1975) argument on the labour queue).

We will consider the impact of discrete processes by asking what impact quits and promotions have on workers in Germany and the UK. We will use longitudinal data from the British Household Panel Survey (BHPS) and the German Socio-Economic Panel (G-SOEP), throughout. Both panels contain detailed job history files and earnings information, as well as several important controls outlined in the wider literature on the sociology of labour markets. Since authors often operationalise job mobility in complex ways, surveys that explicitly measure mobility events within and between firms are useful (Keith and McWilliams, 1995; Kalleberg & Mastekaasa 2001). We use a longitudinal approach, estimating the effect using linear fixed-effects estimation. Such models can compare the effects of moving instead of comparing movers to non-movers (Sørensen 1977, Sørensen & Tuma 1978, Stier & Grusky 1990). Further, linear fixed effects estimation will allow us to avoid issues of individual heterogeneity which stems from the non-random nature of job mobility.

Results suggest that country institutions shape not only the rate of job mobility but also its consequences. Mobility outside the firm rewards workers on average in the UK, and appears to have limited effects in Germany, even containing penalties at times. Results help to understand the discrete processes more broadly, and institutional differences which shape these processes. Further research should consider how group differences are impacted by these institutional settings in terms of job mobility and its rewards.

2.0 Continuous changes, discrete changes, and institutions.

Researchers interested in social stratification often look at intergenerational differences in outcomes. Does a parent's social standing affect their children's social standing, net of economic measures like human capital (Erikson and Goldthorpe, 2002). In these studies,

societies are compared in terms of class mobility between parent and child, and conclusions are drawn about their “openness” or equality of opportunity (Breen and Jonsson, 2005). However, intragenerational studies, which look at inequality over one person’s life, offer insights into the distribution of positions in a stratified system. Kalleberg and Mouw (2018) define intragenerational mobility as the persistent change in outcomes like economic position or occupational standing over a person’s life. Sørensen (2001, p.295) uses a broader definition, claiming that intragenerational mobility is the “*time trajectories in earnings, occupational positions, or socioeconomic status*”.

Studies of intragenerational inequality are broadly interested in two processes, continuous and discrete (Spilerman 1977, Sørensen 1977, Stier & Grusky 1990, Sørensen 1975). Work that focuses on continuous processes is common, and often cites the importance of skill acquisition or transfer. For example, human capital theorists suggest time spent in the labour market improves productivity and therefore wages (Becker 2009). The same association between tenure and wages could be driven by workplace rules, like those found in internal labour markets, where wages are tied explicitly to firm tenure and access to training (Althauser 1989). Both mechanisms are continuous which expect a gradual change in earnings over time and which discern between more and less experienced workers.

Discrete processes are sudden changes in outcomes that come from a change in position, a change in the labour queue, or a “job-shift” (Sørensen, 1977, page.45). These changes and mechanisms are tied closer to occupational and organisational sorting. For example, the reservation wage mechanism in Burdette’s (1978) job-searching approach expects a change in wages after a job change. Explicitly, *reservation wage* y represents the minimum pay a worker will accept for taking a new position, this wage must be higher than *reservation*

wage x , which drives workers to accept their first job. Another discrete process is Thurow's (1975: p76) description of the labour queue, where workers compete for sequences of jobs and where wages are paid based on the characteristics of the job in question, not the characteristics of the worker. Here too changing jobs (within the labour queue) leads suddenly to higher earnings, independent of other processes like productivity, workplace rules, or experience. We will focus on two types of discrete change throughout; promotions and voluntary job quits.

Country institutions shape both processes. Kalleberg and Mouw (2018; p.285) write,

“mobility is patterned by institutional and structural influences, such as the distribution and size of occupations, industries, and firms, which are reflections of technological changes, labor demand, and forces that affect job ladders, such as collective worker power (exercised through unions or occupational associations), employer power, and state interventions (such as antidiscrimination laws) that shape the nature of employment systems at particular points in time.”

Institutional settings which promote large differences in wages, especially when these differences are within the same occupation, will lead to a larger *reservation wage* y , on average (Burdette 1978). This will encourage quits, lead to less emphasis on internal careers, and less emphasis on promotion more generally since employers will choose to hire from outside the firm to save on training and development costs. Institutional settings with less wage inequality will have less quits due to lower reservation wages, but also because of higher returns on promotions to higher occupations within the labour queue. Here, internal processes will be more important to workers and internal training more crucial to intragenerational differences in wages. These differences are discussed in the Varieties of

Capitalism approach, of which Germany and the UK are explicit examples (Hall and Soskice, 2001; Thelen, 2014).

Firms in Liberal Market Economies (where the UK is a key case) prefer to buy skilled workers from the market rather than to build these skills internally. This approach is cheaper and more predictable since trained workers can again find better opportunities with new employers offering higher wages (Hall and Soskice, 2001 p 30.). This effect stems from the industrial relations make up of LME's where workers make individual wage and benefit bargains with employers. As shown in Table 1 (columns 1 and 2), wage inequality between and within occupations is high, and so opportunity to secure reservation wages, without moving higher on the occupational ladder, is also high. Firms in Coordinated Labour Markets (where Germany is a key example) routinely invest in training, and often involve universities and trade schools in firm and occupation specific training. They do this because turnover (mobility between firms) is low and career ladders are shorter than those of Liberal Market Economies (DiPrete et al. 1997; Hall and Soskice, 2001). The explicit goal of industrial relations policy is to set wages to *"equivalent skill levels across an industry"* (Hall and Soskice, 2001: p.25). This is shown in columns 3 and 4 of Table 1. These differences make it difficult to poach workers and ensuring a strong commitment to the firm. Although wage inequality between occupations is larger, workers need the training and tenure provided by firms to achieve these changes (through promotion).

[TABLE 1 HERE]

One set of findings argue there has been sharp growth in inequality in earnings both between and within firms, despite large increases in the homogeneity of skills in German firms (Tomaskovic-Devery and Melzer, 2015). While Germany previously had wide

bargaining across industries, this model has given way to dualized bargaining between industries. As a result, weak unions and low collective bargaining coverage characterize low wage sectors like services, while strong unions with high coverage characterise larger sectors like export-oriented manufacturing. Despite these developments, we expect that mobility of workers largely happens within the wider sectors and industries described by Tomaskovic-Devery and Melzer (2015), this is obvious for mobility within firms. Further, while there are differences in changes from small firms to larger firms (Sørensen, 1983, Tomaskovic-Devery and Melzer, 2015), we do not consider their impact here. Instead we simply compare the basic effects of moving for voluntary reasons. Splitting these moves further is beyond the scope of the paper.

With the Varieties of Capitalism framework in mind, we consider the literature tied to job mobility and its association with earnings.

3.0 Discrete changes and earnings

Authors typically find a positive relationship between quitting and earnings. Workers who quit typically show an increase in wages after the change, even when remaining in the same occupation (Schmelzer et al. 2011, Kronberg 2013, Cha 2014, Topel & Ward 1992, Le Grand and Tahlin 2002). This finding is important because it suggests there are premiums to mobility that cannot be explained by the characteristics of workers (Kalleberg and Mauw, 2018; Sørensen 1994). This result often holds even when models correct for the non-random nature of quitting, as well as other continuous processes (Schmelzer et al. 2011; Le Grand and Tahlin 2002; Gesthuizen, 2009). The effect is especially important for young workers (Topel and Ward, 1992). There is also evidence that men benefit from quitting more than women (Kronberg 2013), although this difference has not appeared in other

studies, which find that core workers have the most to gain from mobility regardless of gender (Keith and McWilliams 1997, 1995; Cha 2014; Fuller, 2008; AUTHOR XXXX).

Although promotions are also a discrete process, they are less often compared to quits. When compared, promotions routinely produce higher premiums for movers, relative to external quits (Le Grand & Tahlin 2002, Gesthuizen & Dagevos 2008, Van der Klaauw & Da Silva 2011, Lup, 2018; AUTHOR, XXXX). Promotions are also a type of discrete change, but one that is particularly preferred by workers. Ng et al (2007, p.365) write that they are the *“most desired type of job mobility, because promotions increase status, esteem, responsibilities, and financial rewards”*. Elsewhere, Bidwell and Mollick (2015) use a sample of MBA graduates to show that internal and external moves provide largely similar returns in terms of wages, but that internal promotions tend to bring more responsibility when compared to external changes. They also find that mobility for involuntary reasons tended to bring only minor changes in pay, without premiums.

In general data from Sweden (Le Grand & Tahlin, 2002), the Netherlands (Gesthuizen & Dagevos, 2008; Gesthuizen 2009) and Canada (Javdani & McGee, 2019) show that when compared, internal promotions yield higher pay premiums than external promotions, even when controlling for individual heterogeneity. This effect remains even when workers keep their occupation (Le Grand & Tahlin, 2002). They are also particularly important for both men and women (Javdani & McGee, 2019), although research in the UK suggests that women struggle with working conditions after an internal promotion relative to men (Lup, 2018).

While the VoC approach sketches different expectations for both countries, few authors have compared these associations explicitly. Pavlopoulos et al. (2014) find a meaningful

difference, reporting that the UK rewards promotions most (similar to Le Grand and Tahlin's 2002 finding) while Germany rewards job quits most. This result goes against the predictions of the VoC approach and crucially applies only to the lowest paid workers in both samples, where most workers do not see a premium. Further, the definition of voluntary mobility used by Pavlopoulos et al (2014) is different to previous authors, where all direct changes to a new position are treated as "voluntary", even if initiated by dismissal. Fasang et al (2012) also consider the effects of mobility on work satisfaction measures, finding strong positive effects in Corporatist countries (where Germany, France, and Belgium feature among others), post-socialist countries (where Estonia, and Hungary feature among others), and liberal countries (The UK and Ireland) when compared to social democratic states. However, Fasang et al. (2012) suggest that when predicting satisfaction with earnings, "external upward moves", or quits to a new employer are particularly beneficial to workers in liberal market economies. These findings fit with our outlined summary of the VoC approach (Hall and Soskice, 2001), if only in that external mobility leads to a subjective premium for British workers.

Lastly Dustmann & Pereira (2008) consider the association between firm tenure or labour market experience and earnings growth in Germany and the UK. This approach does not consider the impact of job mobility explicitly, but authors note that labour market experience provides the highest returns to earnings among British workers. They also find little association between firm specific tenure and earnings growth in either country. Here too, the importance of the wider labour market fits the VoC narrative that earnings in Britain may depend on movement in the wider market.

In general, the authors show that job mobility (a type of discrete process) leads to pay premiums which cannot be fully explained by the characteristics of workers. Further internal promotions and quits have different effects on workers, and that this effect is generally mitigated by the country institution. Regarding country institutions we would expect coordinated markets to reward promotions more, due the limited variation in wages, and liberal markets to reward external quits more, due to the wider variation in wages.

- H1: Independent of continuous processes and other controls, internal promotion will have a positive effect on earnings in Germany.
- H2: Independent of continuous processes and other controls, external quits will have a positive effect on earnings in the UK

4.0 Data and samples

We will consider data from Great Britain's BHPS and Germany's SOEP throughout, which are representative samples of the countries core workforces. We will focus on the 2000-2008 period since both panels cover these years, and since the BHPS panel ends in 2008 before being absorbed by the wider Understanding Society panel. Each panel contains socio-economic variables, detailed job history files, and measures of worker earnings (gross and net). We argue that although both panels are independent, they capture the same distribution of job changes. In Appendix A we show the similarity of job mobility rates in the BHPS, SOEP, and EU-SILC. Since the EU-SILC considers a simplified version of job mobility for both Germany and the UK, we use this distribution as a benchmark and show it matches the rates found in individual panels for mobility overall (Table A.1), and voluntary mobility specifically (Table A.2).

Both samples consider all respondents, either employed, unemployed or inactive. Limiting the sample to people who are continuously employed would limit respondents in Germany, since German parents (mostly mothers) are more likely to leave the labour force when compared to British parents. Further, since unemployment tends to last longer in Germany when compared to the UK, limiting the sample would block those who return to the labour market after an absence; we want to include these workers.

We will also consider each available region in both countries together; for the UK this is England, Scotland, Wales and Northern Ireland, for Germany this is both East and West. The final data-frame is a person-year file of individual responses. Throughout, we rely on 59,619 observations from 12,901 respondents in the UK, and 67,730 observations from 16,402 respondents in Germany¹. The UK data draws from year-specific individual-response files, and individual job history files which contain person-specific job-spell information for the given year. The German data draws from the SOEP-Long file, a longitudinal version of the individual response files.

Our outcome of interest is gross hourly wages. The measure features in the SOEPLong file and the BHPS's individual response file. We use gross wages to avoid income tax differences between the UK and Germany, which limit the post-change earnings in Germany more than the UK. Further, since both countries differ by currencies, both sets of values are converted to US dollars (\$) as valued in January 2008. In the UK, 1 British pound was worth 0.507 dollars. In Germany 1 euro was worth 0.680 dollars. Lastly, since wages are not normally distributed, each model considers the natural log of these.

¹ In the Appendix, Table A.3 (UK) and Table A.4 (Germany) contain summary statistics for both samples used.

We define mobility using three measures. The first determines whether a job change occurred since the previous survey wave. In the UK, movement and non-movement are captured by changes in spell. In Germany, basic mobility is captured using the survey question “new job since last year?”. The second measure determines if the change took place in the same firm, or whether respondents moved to a new firm. The final measure determines the worker reported nature of the change, either voluntary or involuntary. Where workers list promotions, better jobs, and own resignations, we consider this change to be voluntary. Where workers list redundancy, firm closure and dismissals, we consider this change to be involuntary. Where workers list childcare and retirement reasons for changing jobs, we consider these to be residual or other mobility types.

One limitation of the data is the SOEP-long file cannot distinguish between voluntary and involuntary changes within the firm, for this reason, all intra-firm changes are considered together, similar to Pavlopoulos et al. (2014). Combining all internal mobility into one category will likely underestimate the effect of German promotions, however this is the best available measure and is the basis of our measure of discrete processes.

Some may argue that worker-determined measures of mobility are not fully straightforward, in that job quits may happen in anticipation of dismissal. Instead authors may suggest that only direct changes are used to consider voluntary mobility. However, we want to capture the mechanism by which workers use to arrive at their main job as closely as possible. Although some voluntary quits may occur in anticipation of involuntary mobility types, we expect that most quits and resignations occur because workers have found other positions with new employers and have acted on these.

Beyond mobility and earnings, we consider several controls. Le Grand & Tahlin (2002) cite the importance of age and firm tenure as important controls. These are also cited as important in the literature as continuous processes of inequality (Sørensen, 1977). We will also control for working time, and the number of children in the home, which previous authors have suggested are an important measure (Cha 2014; Fuller, 2018). Finally, Le Grand & Tahlin (2002) claim that occupational changes are an important control, in order to consider “pure” mobility effects. We do not include this measure in our analysis since firm-internal and -external mobility are not interchangeable. Internal mobility may result in a change of tasks while external mobility may result in a change in pay. By controlling for occupational change, we would force a comparison that ignores the nature of internal and external mobility. Lastly, previous versions of our model contained time invariant controls, such as educational status, fixed effects estimation did not allow us to include these measures.

4.1 Estimation

We originally estimated the models using linear random effects estimation. This method contained bias, in that our controls correlated with and person-level errors (Hausman test; $\chi^2(13) = 1549.40$, $\text{Prob} > \chi^2 = 0.00$). By ignoring selection into mobility, the estimates for promotion for example, would be inflated by person specific errors (Rabe-Hesketh & Skrondal 2008; Allison 2005). We consider fixed-effects linear estimation throughout, which will exclude these person-specific errors by using subject specific averages, shown below.

$$\log(y_{it}) - \log(\overline{y_i}) = \beta(X_{it} - \overline{X_i}) + (\alpha_i - \overline{\alpha_i}) + (u_{it} - \overline{u_i})$$

In these models the average deviations in wages ($\log(y_{it}) - \log(\bar{y}_i)$) for an individual (i) at a given time (t), are estimated using person-specific deviations from a set of controls ($\beta(X_{it} - \bar{X}_i)$), which include job mobility (and the other measures mentioned above). One strength is that person specific errors are completely cancelled from the model ($(\alpha_i - \bar{\alpha}_i)$). One drawback is that time-invariant measures (like gender) cannot be included in the model for the same reason.

Many of the authors in our review use a similar method, Gesthuizen & Dagevos (2008) estimate the effect of mobility using a difference in difference approach, similar to a within-estimator. Latzke et al. (2016) use propensity score matching to avoid the same issue using German data. Pavlopoulos et al. (2014) also use fixed-effects regression when estimating the relationship between mobility and earnings.

4.2 Sources of Bias

Estimating the link between mobility and earnings contains three important sources of bias. The first is mentioned throughout the methodology. There is a fixed worker component to earnings and the earnings premium tied to job mobility. This fixed component likely varies between workers leading to individual heterogeneity, since mobility is not a random event. We eliminate the effect using fixed-effects within-estimators. Second is the unmeasured heterogeneity between workers in terms of job match, outlined by the job-match approach (Dustmann & Pereira 2008, Jovanovic 1979). Here, wage estimates of tenure and experience will be biased since high-quality matches will increase the returns to these measures, while low quality matches will decrease the returns on these measures. It is also possible that such heterogeneity affects estimates of mobility, since the quality of the match cannot be determined in the short term, although this is not the main impact of this bias. Further,

since work is an “experience good”, internal promotions are not susceptible to this bias (Van der Klaauw & Da Silva 2011). Dustmann & Pereira (2008) use instrument variables to avoid the issue when estimating the effect on tenure and labour market experience. We note the existence of such bias but argue that our main interest is in the impact of mobility, and not tenure or age. Hence, we do not expect these estimates to be affected. The final source of bias is tied to sample selection, specifically the issue of job mobility affecting respondent likelihood of participating in both surveys. Studies show that regional mobility yields larger returns than intra-regional job changes (Reichelt & Abraham 2017). Workers who make regional job changes may be simultaneously most likely to benefit from mobility and less likely to participate in future surveys. On this point, both panels cover all regions of both countries, and strive to achieve full participation in follow-up surveys. However, a portion of respondents, especially those who leave Germany and the UK, may make changes that drop them from the panel. This mechanism likely underestimates the positive impact of mobility to some degree, but only applies to inter-firm mobility or quits. As before, this issue is noted by other authors studying returns on mobility (Schmelzer et al. 2011, Fuller 2008).

5.0 Results

Before discussing the fixed effects models, we briefly list some descriptive statistics using our main samples. Table 2 shows the mobility types recorded in the UK data and the average monthly and hourly earnings tied to the given mobility types. Although we do not control for repeat observations, we can see that voluntary mobility is the most common type of change in the UK, with quits (8 per cent) and promotions (5 per cent) being the most common. We also see that respondents on average earn more in the years where they record a quit (\$20.05) or a promotion (\$23.50).

[TABLE 2 HERE]

Table 3 shows the mobility types recorded in the German data and the average monthly and hourly earnings tied to the given mobility types. Again, we do not consider repeat observations in the summary, but we note that voluntary quits (4 per cent) are the most common mobility type. We also see that workers on average earn more in the years where they record an internal change (\$30.20) but not a quit (\$21.00).

[TABLE 3 HERE]

We now turn to fixed effects estimates of job mobility for both countries focusing on the UK (Table 4) and Germany (Table 5). We first consider the UK's results.

[TABLE 4 HERE]

The estimates above consider workers in the UK. From Model 1 we see that all mobility types have a negative effect on earnings. The unadjusted difference tends to prefer respondents who stay in the same job with the same employer. However, when we control for the age, and weekly working time of respondents, we see a positive effect for both types of voluntary job mobility. Respondents who quit or take a promotion typically see a 2 per cent increase in pay, controlling for their age, their working time, and their unmeasured personal characteristics. Both estimates are also statistically significant. Further, we see that earnings increase as people age, although there is a quadratic relationship to the estimate. We also see that workers who increase their working time tend to see a fall in their hourly earnings, although this estimate is for respondents who remain in the same job with the same employer and may reflect very long working hours. In model 3 we control for children in the home, firm tenure, and the size of the firm. We again find positive estimates

regarding voluntary mobility types. Leaving an employer is associated with a 2.2 per cent increase in earnings. Further, a promotion within the firm is associated with a 2.8 percent increase in earnings, suggesting that mobility is particularly important in the UK. We accept hypothesis 1, voluntary mobility between firms has a positive and significant effect on the earnings of workers. However, we also note that internal changes have significant effect on earnings. In general moving between and within firms even when holding the same occupation has positive effects on earnings in the UK, net of personal characteristics of movers, their level of experience, and the characteristics of the job they move to. These findings are consistent with Gesthuizen (2009) and Schmelzer (2011) who report that both mobility types lead to significant gains in earnings. We now turn to the German results..

[TABLE 5 HERE]

The estimates above consider workers in Germany. From Model 1, we see that quits have a positive but insignificant effect on earnings. Those who take a different position within the firm see an 8 per cent increase in earnings on average, these changes contain promotions but likely hold some other mobility types, including lateral changes as well as demotions. We assume that such changes are uncommon. In Model 2 we control changes in age and weekly working time. Once these measures are considered, a penalty emerges for respondents who quit their jobs in Germany. These respondents see a 1 per cent fall in earnings after making the change to a new employer. However, the estimate for internal changes within the firm remain significant and positive. These respondents see a 2.7 per cent increase in pay after the change, controlling for age and hours worked, as well as the unmeasured personal characteristics of respondents. In Model 3, we control for children in the home, the size of the firm, and the contract type. We see that external changes to new

employers are again not significant despite the penalty in Model 2, but changing jobs with the same employer remains significant and positive. Workers who take positions within the firm see a 3 per cent rise in earnings after the change. For Germany we also accept hypothesis 2, internal changes within the firm reward workers, while external changes have no significant effect on earnings, and may even have a negative effect when certain measures are not considered. This finding is also consistent with Schmelzer (2011), who argues that voluntary mobility outside of the firm is dependent on direct changes to new employers without an intermission of non-working. However, our results suggest that even voluntary quits to new employers, without dismissal, may be complicated.

Discussion

The paper offers three findings. First, for researchers interested in social stratification, discrete processes are a significant predictor of earnings in both countries, this confirms predictions made by Sørensen (1977; 1984) who emphasises career processes can operate in discrete, rather than continuous processes. While we find that continuous processes are also important to predictions of earnings, we note there is value to understanding the process of quits and promotions which carry premiums in and of themselves. Second, countries shape not only the likelihood or commonality of job mobility, but also its consequences, as outlined by the Varieties of Capitalism literature (Hall and Soskice, 2001; Thelen, 2014). Part of the reason why voluntary job mobility is not common among German workers may be because there are few premiums tied to the change, and in certain conditions penalties may exist for younger workers, as earlier models have shown. Third, both quits and promotions offer workers premiums in the UK, suggesting that changes in

positions in and of themselves are more important in the British labour market than they are in German one, where internal promotions reward workers most.

The three findings above run counter to several authors. First, our results find no positive effect for inter-firm mobility in Germany. Latzke et al. (2016), Schmelzer et al. (2011), and Pavlopoulos et al. (2014) find an effect for this type of change in their respective analyses. However, each paper uses a wider sample and a different definition of mobility to the one proposed here. Since we consider only the economic core, it is possible that premiums tied to mobility appear only for early-career workers, or those who are loosely attached to the labour market. This would fit the findings reported by Pavlopoulos et al., (2014) who only find a premium among low paid workers. However, our findings resemble those of Gesthuizen & Dagevos (2008) and their sample of Dutch workers, and Le Grand and Tahlin (2002) for their sample of Swedish workers. In the Netherlands inter-firm mobility brought only a 1 per cent increase in pay after the move, but intra-firm mobility brought significant gains in terms of pay, similar to those reported here. In Sweden, both internal and external mobility yielded significant effects.

Job quits in the UK carry a minor positive effect on earnings, as do promotions. Specifically, we find that UK job quits yield 2 per cent increase in monthly wages. Internal promotions produce statistically significant results in both Germany (3.3 per cent increase in pay) and the UK (2.7 per cent increase in pay).

It is worth considering why German workers are not penalised for exits to a new employer. Despite workers leaving behind firm-specific knowledge to take positions in new firms. This may stem from strong sectoral and occupational control over wages, in that even in mobility, workers are able to rely on wider agreements. Germany's rigid labour market may

be designed to encourage internal careers tied to standardized educational or vocational degrees (Schmelzer, 2011), however part of this bargain is the security of recreating their positions elsewhere. Further, despite the UK's larger rate of mobility, and its larger income inequality, external quits do not produce higher premiums than promotions. These changes still yield a significant effect but this effect is similar to promotion.

Lastly, we note the rising level of both between- and within- firm inequality of wages in Germany (Tomaskovic-Devey and Melzer, 2020). Although the limited indicators we have used here suggest that overall inequality is lower in Germany than the UK, others suggest that German inequality is rising. This will likely increase the level of mobility between firms, but may leave internal mobility unaffected. German organisations are flatter and their occupations more closed. Further Tomaskovic-Devey and Melzer (2020) argue the outsourcing and skill homogeneity is growing, especially in new low-paid firms which have emerged to better absorb the demands of greater outsourcing. This could impact mobility for younger respondents who are gaining experience in the labour market.

Table 1: Institutional differences in earnings

	UK 2001	UK 2008	Germany 2001	Germany 2008
Gini coefficient (a)	36.0	34.1	30.3	31.3
Decile ratio of gross earnings D9/D1 (b)	3.5	3.6	3.0	3.2
Union coverage (c)	36%	36%	68%	64%
Coordination of wage setting (d)	1	1	3	4

Source: Author's Calculations. Gini data sourced from World Banks, Income inequality sourced from Eurostat, Union Coverage and Coordination of wage sourced from Visser (2011) ICTWSS.

Note a: World bank gini coefficient. Data for Germany only available for 2001 and 2007. Data for the UK is only available in 2004 and 2008.

Note b: OECD data, Ratio of earnings decile limits of the 9th decile and the 1st decile.

Note c: Data taken from Visser (2011) measure of collective bargaining coverage (coord)

Note d: Visser measure of wage coordination ranging from 1 (individualised) to 5 (collectively set).

Table 2: Mobility, earnings, and hourly earnings for the UK.

Mobility event	Freq.	Percent	Monthly wages	Hourly wages
Same job same employer	46,535	78.05	\$3,211.78	\$21.62
Changed employer- voluntary	4,936	8.28	\$3,174.09	\$20.05
Changed employer- involuntary	1,223	2.05	\$2,735.02	\$18.10
Changed employer- other reason	2,411	4.04	\$2,548.47	\$18.16
Changed job kept employer- voluntary	3,226	5.41	\$3,721.65	\$23.50
Changed job kept employer- involuntary	224	0.38	\$3,066.35	\$21.68
Changed job kept employer- other	1,064	1.78	\$3,298.02	\$22.36
Total	59,619	100	\$3,200.64	\$21.39

Table 3: Mobility, earnings, and hourly earnings for Germany

Mobility event	Freq	Percent	Mean monthly wage	Mean hourly wage
Same job same employed	62,862	92.81	\$3,952.96	\$22.60
Changed employer- voluntary	2,769	4.09	\$3,356.49	\$21.00
Changed employer- involuntary	1,502	2.22	\$2,783.14	\$21.20
Changed job kept employer	597	0.88	\$4,502.28	\$30.20
Total	67,730	100	\$3,907.47	\$22.59

Table 4: Results for the UK

	Model 1		Model 2		Model 3	
Same job same employer	0.000	(.)	0.000	(.)	0.000	(.)
Changed employer- voluntary	-0.019	(0.000)	0.017	(0.000)	0.022	(0.000)
Changed employer- involuntary	-0.090	(0.000)	-0.059	(0.000)	-0.048	(0.000)
Changed employer- other reason	-0.102	(0.000)	-0.092	(0.000)	-0.083	(0.000)
Changed job kept employer- voluntary	-0.069	(0.000)	0.024	(0.000)	0.028	(0.000)
Changed job kept employer- involuntary	-0.109	(0.000)	-0.015	(0.404)	-0.004	(0.819)
Changed job kept employer- other	-0.075	(0.000)	-0.009	(0.292)	-0.003	(0.723)
Age at date of interview			0.109	(0.000)	0.111	(0.000)
Age at date of interview^2			-0.001	(0.000)	-0.001	(0.000)
no. of hours normally worked per week			-0.011	(0.000)	-0.011	(0.000)
No children					0.000	(.)
One Child					-0.022	(0.000)
Two Children					-0.041	(0.000)
Three or more children					-0.043	(0.000)
Tenure					0.001	(0.000)
Firm size 1-100					0.000	(.)
Firm size 100-500					0.038	(0.000)
Firm size 500+					0.060	(0.000)
Temporary					0.000	(.)
Permanent					0.052	(0.000)
Constant	2.931	(0.000)	0.281	(0.000)	0.204	(0.000)
Observations	59,619		59,619		59,619	
R-squared	0.010		0.257		0.261	

Table 5: Results for Germany

	Model 1		Model 2		Model 3	
Same job same employed	0.000	(.)	0.000	(.)	0.000	(.)
Changed employer- voluntary	0.001	(0.820)	-0.010	(0.038)	0.004	(0.429)
Changed employer- involuntary	-0.091	(0.000)	-0.001	(0.949)	-0.017	(0.015)
Changed job kept employer	0.082	(0.000)	0.027	(0.007)	0.033	(0.001)
Age of Individual			0.068	(0.000)	0.067	(0.000)
Age of Individual^2			-0.001	(0.000)	-0.001	(0.000)
Number of weekly working hours			-0.019	(0.000)	-0.019	(0.000)
No Children					0.000	(.)
One Child					-0.010	(0.004)
Two Children					-0.006	(0.199)
Three or more children					-0.005	(0.539)
Firm tenure					0.002	(0.000)
Firm size under 5					0.000	(.)
Firm size between 5 and 10					0.018	(0.054)
Firm size under 20					0.063	(0.000)
Firm size between 20 and 100					0.094	(0.000)
Firm size between 100 and 200					0.109	(0.000)
Firm size between 200 and 2000					0.112	(0.000)
Firm size 2000+					0.112	(0.000)
Permanent					0.000	(.)
Temporary					-0.055	(0.000)
Constant	2.989	(0.000)	1.916	(0.000)	1.859	(0.000)
Observations	67,730		67,730		67,730	
R-squared	0.003		0.362		0.367	

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Appendix A: Comparing BHPS and SOEP

Although both datasets are separate, we show that their measures of mobility are comparable. We will turn to the European Survey of Income and Living Conditions (EU-SILC) which overlaps with both panels for a brief period between 2005 and 2008. Specifically, we will use a simple measure of job mobility (PL160) for Germany and the UK, alongside our panel data (Table A.1).

Table A.1: Job mobility using three sources

Year	Basic Job mobility			
	EU-SILC DE 1	EU-SILC UK 2	SOEP 3	BHPS (Und Soc) 4
2005	6%	23%	6.3%	21.9%
2006		24%	6.0%	14.6%
2007	7%	17%	7.6%	16.6%
2008	8%		8.0%	14.6%
2009	7%	13%	8.5%	
2010	9%	13%	7.4%	
2011	9%	12%	6.3%	6.1%
2012	10%	7%	6.7%	6.0%
2013	9%	8%		6.6%

Columns 1 and 2 consider job mobility in Germany and the UK as measured by the EU-SILC dataset. There is a sharp difference between Germany and the UK as recorded by SILC.

Columns 3 and 4 also consider a simple measure of job mobility in the SOEP and BHPS respectively. Here too there is a sharp difference in mobility. However the difference between datasets and within countries are minor, suggesting both datasets capture a similar phenomenon.

More specifically we can also use the definition of voluntary mobility. EU-SILC's PL170 measure asks respondents whether they move for voluntary or involuntary reasons, although the data has substantial gaps, with PL170 missing for UK respondents in key years, we still find comparable differences between both countries, with the UK having more voluntary mobility, and Germany having less voluntary mobility (Table A.2).

Table A.2: Comparing voluntary job mobility in SILC, BHPS, and SOEP

Year	Voluntary change		Voluntary change, quits or promotions	
	EU-SILC DE 1	EU-SILC UK 2	SOEP 3	BHPS (Und Soc) 4
2005	2.0		2.6	13.8
2006			2.5	8.3
2007	2.5		3.7	9.7
2008	3.1		4.4	8.9
2009	2.9	4.4	4.6	
2010	2.6	4.2	3.5	
2011	3.3	4.2	3.3	3.1
2012	3.9	3.0	4.0	3.3
2013	3.4	3.9		3.9

Table A.3: Summary statistics for the UK

Variable	Obs	Mean	Std. Dev.	Min	Max
M_event					
Same job same employer	59,619	0.78	0.41	0.00	1.00
Changed employer voluntary	59,619	0.08	0.28	0.00	1.00
Changed employer involuntary	59,619	0.02	0.14	0.00	1.00
Changed employer other	59,619	0.04	0.20	0.00	1.00
Changed job kept employer voluntary	59,619	0.05	0.23	0.00	1.00
Changed job kept employer involuntary	59,619	0.00	0.06	0.00	1.00
Changed job kept employer other	59,619	0.02	0.13	0.00	1.00
Weekly hours	59,619	34.65	10.00	1.00	99.00
Monthly pay	59,619	1622.72	1187.17	1.17	72055.43
Log monthly pay	59,619	7.17	0.70	0.15	11.19
age	59,619	39.75	11.97	15.00	82.00
Contract					
Temporary	59,619	0.03	0.18	0.00	1.00
Permanent	59,619	0.97	0.18	0.00	1.00
Number of children					
None	59,619	0.63	0.48	0.00	1.00
One	59,619	0.17	0.38	0.00	1.00
Two	59,619	0.16	0.36	0.00	1.00
Three or more	59,619	0.05	0.21	0.00	1.00
Firm Size					
1-100	59,619	0.60	0.49	0.00	1.00
100-500	59,619	0.22	0.42	0.00	1.00
500+	59,619	0.18	0.38	0.00	1.00
Firm tenure	59,619	5.30	6.38	0.00	49.00
wave					
11	59,619	0.12	0.32	0.00	1.00
12	59,619	0.11	0.32	0.00	1.00
13	59,619	0.11	0.32	0.00	1.00
14	59,619	0.11	0.31	0.00	1.00

15	59,619	0.11	0.31	0.00	1.00
16	59,619	0.10	0.30	0.00	1.00
17	59,619	0.10	0.30	0.00	1.00
18	59,619	0.10	0.30	0.00	1.00

Table A.4: Summary statistics for Germany

Variable	Obs	Mean	Std. Dev.	Min	Max
M_event					
Same job same employer	67,730	0.93	0.26	0.00	1.00
Changed employer voluntary	67,730	0.04	0.20	0.00	1.00
Changed employer involuntary	67,730	0.02	0.15	0.00	1.00
Changed job kept employer	67,730	0.01	0.09	0.00	1.00
Gross monthly pay	67,730	2657.08	1733.64	26.00	60000.00
Log gross monthly pay	67,730	7.71	0.61	3.26	11.00
Weekly working hours	67,730	43.57	12.72	0.46	155.10
Age	67,730	42.86	10.23	17.00	82.00
Contract					
Permanent	67,730	0.95	0.23	0.00	1.00
Temporary	67,730	0.05	0.23	0.00	1.00
Number of children					
none	67,730	0.60	0.49	0.00	1.00
one	67,730	0.21	0.40	0.00	1.00
two	67,730	0.15	0.36	0.00	1.00
three or more	67,730	0.04	0.20	0.00	1.00
Firm size					
under 5	67,730	0.06	0.24	0.00	1.00
between 5..	67,730	0.02	0.14	0.00	1.00
under 20	67,730	0.13	0.34	0.00	1.00
between 2..	67,730	0.20	0.40	0.00	1.00
between 1..	67,730	0.10	0.30	0.00	1.00
between 2..	67,730	0.24	0.43	0.00	1.00
2000+	67,730	0.25	0.43	0.00	1.00
Firm tenure	67,730	12.27	9.83	0.00	52.00
wave					
2000	67,730	0.13	0.33	0.00	1.00
2001	67,730	0.11	0.32	0.00	1.00
2002	67,730	0.13	0.33	0.00	1.00
2003	67,730	0.11	0.31	0.00	1.00
2004	67,730	0.11	0.31	0.00	1.00
2005	67,730	0.10	0.31	0.00	1.00
2006	67,730	0.10	0.31	0.00	1.00

2007	67,730	0.11	0.31	0.00	1.00
2008	67,730	0.10	0.30	0.00	1.00