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Regional mobility of unemployed workers

Experimental evidence on decision-making and behaviour in flexible labour markets

Sebastian Bähr

Dissertationen

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Acronyms and Abbreviations

AME	average marginal effect
CAPI	computer-assisted personal interviewing
CATI	computer-assisted telephone interviewing
DFG	German research foundation
DID	difference-in-differences
FAU	Friedrich-Alexander-Universität Erlangen-Nürnberg
FSM	factorial survey module
FEA	Federal Employment Agency
FE	Fixed effects
GSOEP	German Socio-Economic Panel
IAB	Institute for Employment Research
IEB	Integrated Employment Biographies
IIA	independence of irrelevant alternatives
LMR	Labour market regions
OLS	ordinary least squares
PASS	Panel Study "Labour Market and Social Security"
pp	percentage points
SER	standard employment relation
UB	Unemployment benefits
UB I	Unemployment Benefits I
UB II	Unemployment Benefits II
WZB	Berlin Social Science Centre
FSO	Federal Statistical Office

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1 AB111/8-1 and AB111/8-2

1 Introduction

21st century labour markets demand high levels of flexibility from workers. Technological innovations disrupt existing business models, industries, and occupational structures. New start-ups, conceived in silicon valley, spread their business models quickly around the globe and impact on consumers and workers in multiple societies. Uber, the ride-hailing app, is characteristic for this new "on-demand-economy" (The Economist 2015b). Instead of owning taxis or employing drivers and contributing to their social security payments, Uber is only acting as a broker between customers and self-employed drivers who rent out their own cars. Uber is just one example of a whole range of companies that offer new services without providing standard employment relation (SER) to their workforce[2]. Through technical innovation, these companies claim to offer better services to costumers, while at the same time society as a whole profits from the utilisation of otherwise idle assets, in this case the cars and drivers. While this may be true, these business models definitely shift uncertainty and risks to the individuals who supply the work. Pension contributions and health protection fall into the sole responsibility of the individual, but also the necessity to keep one's skills and market value up-to-date (The Economist 2015a). All this has consequences for workers but also for society as a whole.

Silicon valley start ups certainly are at the forefront of this development. While these companies try to abandon the notion of employment in favour of flexible freelance workers, industries and employers in larger parts of the labour market show a similar tendency to break up SERs by using atypical forms of employment (e.g., Kalleberg 2003). Under the term *"flexicurity"* (Wilthagen and Tros 2004) this flexibilisation momentum also reached policy makers, who restructured welfare states to cope with labour market rigidities and respond to demographic challenges. The German *Hartz* reforms of the early 2000s are a prime example of this. These reforms cut unemployment benefits, tightened search requirements, and promoted marginal employment, self-employment, or temporary agency work as a way to make labour markets more flexible (Eichhorst and Marx 2011).

This destandardisation of employment relationships creates new opportunities as well as insecurities for the vast majority of workers (Bernhardt and Krause 2014). Individuals who value flexibility over security can exploit new opportunities to prosper, while people who value security higher now have to mitigate old and new social risks on their own. Job seekers, and unemployed individuals in particular, are more and more expected to be highly flexible in their search behaviour. This means

2 The emerging industries of *crowdsourcing* or *crowdworking* function similarly.

making concessions for the chance of finding employment, especially regarding regional mobility.

This thesis analyses the way unemployed individuals regard mobility in their job search behaviour. We provide answers to the question, whether tightened mobility requirements for unemployment benefits (UB) recipients in the course of the German *Hartz* reforms lead to more regional mobility. We look at the decision process of unemployed persons when evaluating job offers, in order to gain information on their willingness to make concessions for re-employment. Finally, we provide evidence for the role the social networks of unemployed persons play in fostering or impeding their relocation for a new job. Because observed labour market behaviour is often the result of multiple selection processes, causal estimates need elaborate research designs. Therefore, we are using innovative quasi-experimental and experimental methods for answering our research questions.

1.1 The increased demand for labour flexibility

Technological innovations shift demand away from manual labour towards knowledge based jobs which increases demands for high skilled workers (Acemoglu 2002). For low skilled workers this economic restructuring decreases employment chances. At the same time, traditional SERs give way to atypical forms of employment like temporary work, marginal part-time work, or fixed-term work. These new forms of employment offer low skilled European workers a perspective to avoid unemployment (DiPrete et al. 2006) at the expense of being exposed to new insecurities and a deterioration of bargaining power (Barbieri 2009; Gebel and Giesecke 2011; Giesecke and Heisig 2011). Jobs created in new industries are often also in new places and thereby transform the regional distribution of jobs and job seekers (e.g. for America Moretti 2012). Thus, modern labour markets increasingly demand flexibility from the workforce. This encompasses multiple dimensions, like occupational mobility (Mayer et al. 2010; Dütsch et al. 2013), regional mobility or job characteristics like fixed-term employment (e.g. Gundert 2007) or unpaid overtime (Zapf 2015).

On the level of the individual, these macro trends increase uncertainty about career paths and earnings security. Lifelong uninterrupted careers in one job, one firm, and in one place are becoming rarer. For employees this shift away from old certainties is a mixed blessing. One the one hand, greater flexibility allows willing and able individuals to gain the most from their talents. Frequently changing jobs, firms and regions, as well as life-long learning allow them to profit from opportunity differentials (Lehmer and Ludsteck 2011; Schmelzer 2012; Reichelt

and Abraham 2015). This transfers into better career trajectories and higher earnings profiles (for a review of the literature see: Lehmer 2009: 16ff.; Sørensen and Sorenson 2007; Dorsett et al. 2016). On the other hand, for low skilled or tied-down workers the demand for more flexibility threatens their livelihoods (Giesecke and Heisig 2011). Avoiding such insecurities requires considerably more flexibility than in the decades before.

Against the background of demographic change, European welfare states, whose institutions stem from the 1880s, are struggling to mitigate new and old life risks. Restructuring has taken place in almost all European countries (Kenworthy 2010). The spirit of the reforms is an unanimous emphasis on individual responsibility and stepwise privatisation of welfare state functions (e.g., Prinz 2004: 321). These changes were deemed necessary to retain sustainable social security systems in times of heightened uncertainties. Labour market policies in particular were at the centre of many reform efforts. Instead of administering unemployment, the idea of activation has prevailed. The role of the unemployed shifted from recipients of insurance benefits, paid for by their own previous contributions, to job seekers living on the public's expense with an obligation for quick re-employment (Kemmerling and Bruttel 2006: 97; Jacobi and Kluve 2007: 53; Alber and Heisig 2011). This change entails greater flexibility when evaluation vacancies, chief among them regional mobility. Particularly, in post-reunification Germany great regional disparities between Eastern and Western, but also Northern and Southern Germany exist, which make mobility necessary (e.g., Neugart 2005: 11; Blien et al. 2009; or Melzer 2010).

The German *Hartz* reforms follow this philosophy of activation, expressed by their motto *"assist and demand".* In the course of this reform, on the one hand, job search requirements were tightened, and the replacement rate and receipt duration of benefits limited. On the other hand, the creation of a low income sector, the promotion of temporary employment, and an increase in assistance measures for training or starting self-employment, aimed at increasing re-employment chances (Jacobi and Kluve 2007). Flexibility and the willingness to take up any reasonable job as the basis to be eligible for unemployment insurance or basic income support found its way into the wording of the German social code[3], which governs the social security system. Thus, the notion that flexibility is a chief prerequisite to succeed in the modern labour market has transformed into a norm which is placed on unemployed job seekers. Mobility is explicitly recognised as a way to speed up the transition out of unemployment and thus demanded from welfare receiving job seekers in particular.

3 §138(1)3 SGB III.

1.2 Regional mobility in the job search process

Macro level research recognizes regional mobility as a central adjustment mechanism of supply and demand on the labour market (e.g., Wagner 1989: 30f.; Johnson and Salt 1990). Workers are attracted by wage-differentials and consequently flow from regions with high unemployment and low wage levels to regions with low unemployment and high wage levels. Through this mechanism regional disparities are reduced until migration is no longer attractive. Flexible workers should thus profit from these wage-differentials, while inflexible workers have to bare the consequences of regional contexts of low wages and high unemployment. If workers would react flexibly to labour demand factors, the unemployment insurance system would not need tighter mobility requirements. This is of course an oversimplified theoretical approach, because it ignores the institutional and household context, or the social, psychological costs of mobility. Analysis on a macro level cannot explain why the flows between regions with high and low unemployment are on a low level and why some persons move and other persons stay.

Micro-level research views mobility as the result of an individual cost-benefit analysis (e.g., Sjaastad 1962). Regional wage differentials are incorporated as the income of the potential job, that is evaluated against the individual status quo. The costs of taking-up a job in another region are multidimensional and can be material and immaterial, payable upfront or later. Material costs involve the costs of relocating or commuting. Immaterial costs cover the psychological and social costs of leaving friends and well known places and venturing into an unknown environment (Lee 1966; Schwartz 1973). The cost-benefit structure is unique to each individual and depends on factors like her earnings potential or household structure. The decision about mobility often involves the assessment of risk, because not all information is available beforehand (Kan 2003). Thus, individual psychological factors like risk affinity or access to information, via networks and other channels, are also important. This entails, that costs and benefits do not objectively determine mobility, but are evaluated subjectively by each individual. Mobility will occur if the perceived benefits from moving for a specific job exceed the costs of not moving for that job.

This theoretical framework can explain why certain groups move and others stay, despite considerable regional incentives for all. For flexible workers, e.g. young persons without children or property ownership, the costs of mobility are smaller (e.g., Mincer 1978). If this coincides with higher earnings potential in other regions then mobility becomes an attractive option. This is especially true for highly educated workers, that have a skill-set that is in demand in high-wage regions (Bauernschuster et al. 2014; Amior 2015). At the same time,

individuals with low potential to attract high wages or better quality job offers compared to the current place of residence, in conjunction with down tying factors like school age children or a working partner, will be less inclined to move. Both groups of persons have in common that they weigh relocating against other options. Particularly, their chances of finding comparable employment in the local labour market pose an attractive alternative because this does not entail the high costs of mobility. These differences of chances in the local and interregional labour markets define the individual attractiveness of job offers and vary highly between persons. This fact can explain, why we can simultaneously observe in- and out-migration in the same region, despite fixed labour market disparities.

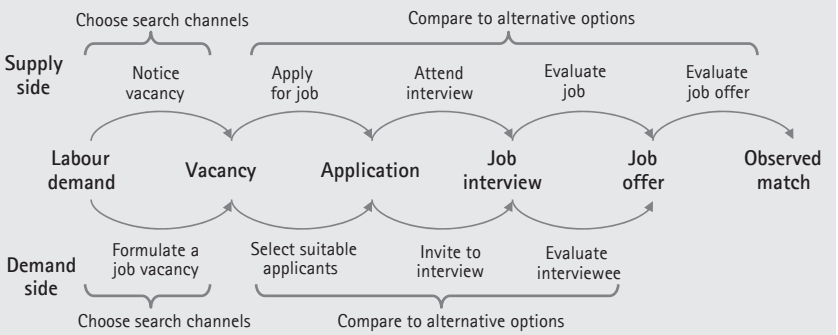
Particularly for unemployed job seekers, mobility should be an attractive option. From the previously mentioned cost barrier, it is clear that mobility for most persons is not the preferred choice. However, with prolonged and unsuccessful job search in the local labour market, mobility should become more attractive (Kitching 1990: 181). This finding is the reasoning behind flexibility norms imposed on unemployed job seekers, that manifest themselves in the design of the *Hartz* reforms. Shortening benefit receipt durations, decreasing replacement rates and requiring a concrete openness for relocations all work to activate unemployed individuals and combat perpetuated structural unemployment (Jacobi and Kluve 2007).

Despite these efforts, the role of mobility in the job search of unemployed remains ambivalent. There is mixed evidence for higher mobility rates of unemployed individuals. Some studies clearly stress the importance of interregional job search for unemployed (Herzog and Schlottmann 1984; Kitching 1990; Arntz 2005). Only some studies, however, allow a direct comparison of mobility rates between unemployed and non-unemployed individuals. A number of studies report higher mobility rates (Harkman 1989; Hughes and McCormick 1989; Pissarides and Wadsworth 1989; van Dijk et al. 1989; Birg 1992; Jackman and Savouri 1992; Westerlund 1998), while others find no effects (Friedrichs 1995; Antolin and Bover 1997; Tervo 2000; Stolle 2000; Stolle 2005) or indeed lower mobility rates for unemployed in unfavourable local labour market contexts (Windzio 2004a, b). These mixed findings suggest complex processes with heterogeneous subgroups of unemployed that follow different logics of action.

Two basic explanations present themselves: first, subgroups of unemployed persons could exist who are especially unwilling to consider interregional job search. This could either stem from weak norms of flexibility or personal responsibility for finding a job (van den Broeck et al. 2010). Alternatively, this could be the result of particular cost structures, that make mobility unattractive. An example of this could be deep cultural and social roots at the current place of residence or a multi-

person household configuration with employed partners or school age children. Lacking access to transportation or the means to relocate fall also into this category (discussed as *motility*, see e.g., Kaufmann et al. 2004: 750). Increasing this lacking willingness or ability is a central aim of the *Hartz* reforms. By imposing sanctions for refusing reasonable job offers, flexibility norms are enforced. Through mobility assistance measures the cost of mobility is mitigated and a greater number of jobs is made more attractive even to low skilled unemployed. Second, another explanation could be demand-side driven. Large groups of unemployed persons could lack the skills to receive reasonably attractive job offers in other regions. In the segments for low skilled work in the labour market, there is excess supply in every region (Buch 2007). This keeps wages low, which in combination with high mobility costs makes relocations unattractive. This could also be explained if employers were to disregard applications of unemployed individuals in general or particularly unemployed from other regions (Atkinson et al. 1996; Bonoli 2014; Oberholzer-Gee 2008).

Figure 1.1 The steps of an ideal-typical matching process



Source: authors' own graphical representation

Disentangling both effects is one important aim of this thesis. Previous research struggled because results were either based on observational data or on oversimplified hypothetical data. Basing ones' conclusions on the observation of realised mobility has two major shortcomings. First, observed mobility is highly selective. Mobility is mostly displayed by the highly skilled, or concentrated in certain industries and occupations. This limits causal claims of the general role of mobility and tells us nothing about the latent willingness for job-related mobility of individuals. In the context of flexibility demands on the unemployed this is problematic. If the observations stem from survey data, assertions with regard to mobility are questionable. Mobile populations are notoriously hard to survey,

especially in longitudinal studies, where relocations make follow-up interviews difficult. This results in a successive loss of cases especially of mobile individuals. Second, realised mobility is the result of a multi-stage-matching process between the job seeker and the searching employer. Figure 1.1 displays the ideal-typical procedure from the beginning of the recruitment process to the observed match. What becomes clear from this depiction is that the match observed in data sets is at the end of a long chain of interlinked decisions. Both, employer and employee compare the opportunity at hand with alternative options. Only if and when all these hurdles are taken, a match can be observed. In case of an interregional job offer, the costs of taking up the job can be expected to be high, increasing the attractiveness of alternative options. This underlines the selectiveness of job-related mobility. Research based on observed mobility consequently ignores the alternatives an individual might or might not have had. Knowledge about the alternatives changes the connotation of job-related mobility. A move could be the only option to end unemployment for some, while for others relocation is an optimal strategy for career advancement.

Observational studies that analyse mobility as the only option are restricted to the result of this complex process. They can make no claim about the underlying decisions made by individuals and are of only limited use to our analysis. We therefore concentrate on experiments in order to learn more about the role of regional mobility in the job search of unemployed individuals.

1.3 The role of experiments

Real processes in the labour market are complex and secured results of causal relationships require diligent research designs. Researchers in the social sciences are increasingly called upon to focus on experimental studies (e.g. most recently, Diekmann 2016). Ideal-typically an experiment allows causal statements about the effects of a treatment, by controlling the allocation of persons into treatment and control groups (e.g., Shadish et al. 2002; Morgan et al. 2009; Gangl 2010; or Jackson and Cox 2013). Real behaviour in social systems differs from these laboratory conditions, making it hard to control the allocation of treatments (*internal validity*). On the other hand, generalisation of results from laboratory experiments to the population is not straight forward (*external validity*).

We follow two strategies to address these challenges: the use of a difference-in-differences (DID) approach – a so called quasi-experiment – and a factorial survey experiment. Both rely on real labour market data, to increase external validity and both try to maximise control over the treatment allocation for a good internal validity.