

Apel^a, Boockmann^{b, c}, Brussig^d, Jansen^d, Knuth^d, Thomsen^{e, c}

Employability: Towards an empirical concept

Paper for the Conference

**Activation policies on the fringes of society: a challenge for
European welfare states**

Nuremberg, May 15-16, 2008

Draft

^a Institut für Sozialpolitik und Gesellschaftsanalyse (ISG)

^b Institut für Angewandte Wirtschaftsforschung (IAW)

^c Zentrum für Europäische Wirtschaftsforschung (ZEW)

^d Institut Arbeit und Qualifikation (IAQ) der Universität Duisburg-Essen

^e Otto-von-Guericke-Universität Magdeburg

1 Introduction: Needs and problems to measure employability

Unemployment is one of the core problems in modern societies. However, political perceptions what causes unemployment and which strategies are appropriate vary in time and differ between countries. During the last decade, concepts of “activation” gained importance throughout the European Union. Although “activation” is not defined consistently (Fromm/Sproß 2008), its main elements are providing access to the labour market to all persons in employable age, a strengthening of the linkage between welfare support on the one side and the behaviour of clients on the other, the implementation of incentives and sanctions to influence individual behaviour, and an emphasis on the individual responsibility for the individual labour market position.

It is against this background that the concept of employability shifted at the center of labour market policy. Three reasons stand out: First, assuming that the exit from unemployment depends on individual initiative, a strategy to improve individual employability – understood as ability to be employed – is adequate. Second, improving individual employability is a target for case managers at PES even when they are not directly involved in job matching processes. And third, the level of individual employability contains important information about persons who have not been in employment for a long time, or never have been employed, such as long-term unemployed, women who seek to return to work, or migrant wives without labour market experiences.

Yet while the concept of employability looms large in the academic and political discourse, empirical research is scarce. Again, at least three reasons come to mind. A first one are conceptual differences, which can be at least partly traced to the different roots of the concept (see section 2). A second reason is that many aspects of individual employability are hard to observe. They cannot be found in administrative data. Even in specialised surveys, it might be hard to collect information about search behaviour, personal strengths and weaknesses in a valid and reliable way. Finally, an empirical investigation of employability has to account the temporal aspect: The observation of the employability has to precede its effect, i.e. the success or failure to find a job.

In our paper, we report results concerning the measurement of individual employability, and results concerning the relation between employability and later integration into employment. We draw on experiences we made during the – still ongoing – evaluation of the implementation of the German basic income support for needy job seekers (*Grundsicherung für Arbeitsuchende*). More specifically, we report our findings to the following questions:

- Which dimensions of employability did we observe, and why? Is it possible to reproduce dimensions which are regarded as important in the theoretical discourse in an empirical instrument? Do these dimensions evolve in the empirical data? Is it possible to reduce a wide range of indicators of employability to a small selection which can be used as a small section within a standardized questionnaire?

- Do differences in the observable dimensions of individual employability account for differences in the employment status? In other words: can individual employability predict labour market chances? Are there different configurations of employability for different groups in the labour market, i.e. do the observed dimensions of employability have the same relevance for short-term and long-term unemployed, and for men and women?

First, we introduce our theoretical concept of employability. Based on the concept, we derive dimensions and indicators of individual employability (section 2). Next, we present the design of the study we undertook to test our concept of measurement (section 3). The discussion of our results is in two steps. First, we analyse our instrument: Do we find empirically dimensions which we considered as important? Is it possible to reduce the set of variables without losing explanatory power (section 4.1)? Second, we use the instrument: Can we improve the prediction of the individual labour market status better when we account for the individual employability? Are there different profiles of employability for different groups (sections 4.2 and 4.3)? Finally, we will conclude with a brief summary and discussion of our results (section 5).

2 Concepts and dimensions of employability

Definitions of employability are neither clear cut nor easy to deal with in empirical research. Based on several review essays (Gazier 1998a, b, 2001; Deeke/Kruppe 2003; Apel 2006), three distinct understandings of employability emerged in recent discussions:

According to a first approach, employability is a binary individual attribute: An individual is employable or not. The assessment is based on one's individual health. For example, eligibility for basic income support (BIS, *Arbeitslosengeld II*) is restricted for persons who are able to work, defined by the ability to work at least 3 hours per day under the usual conditions of the general labour market (cf. (SGB II, § 8, Abs. 1)).¹ Generally speaking, the binary concept of employability helps to administer individual claims to welfare payments due to missing income from work. Historically, the binary concept of employability is the oldest concept. Today, it is still essential in social policy, because it helps to decide the individual preconditions which kind of transfer income (and based on it: which kinds of obligations towards the individual) are appropriate.

The second approach is a concept of gradual employability, there is a „more“ or „less“ of employability. This concept has roots in two different traditions. In the tradition of labour market policy, employability is understood as individual ability to find a new job and to maintain or extend an existing job. Typical dimensions of employability are besides individual health skills and competencies, work experiences, individual flexibility (temporal and spatial) and search behaviour. This concept emerged during the 1950s

¹ SGB II refers also to the reasons which prevent workability in the defined sense: Permanent sickness and impairments and – for foreigners – a lacking working permit without opportunity to obtain one.

and was related to handicapped persons in the labour market. To the extent that structural aspects of unemployment became more important, the focus was enlarged to other “target groups” of the labour market and their respective preconditions in employability in contrast to employer’s demands towards the employability of workers. Finally, the concepts of “activation” and “activating labour market policies” regard employability as a general individual requirement to overcome unemployment. Here, the concept is not limited to “target groups”, but extended to every person.

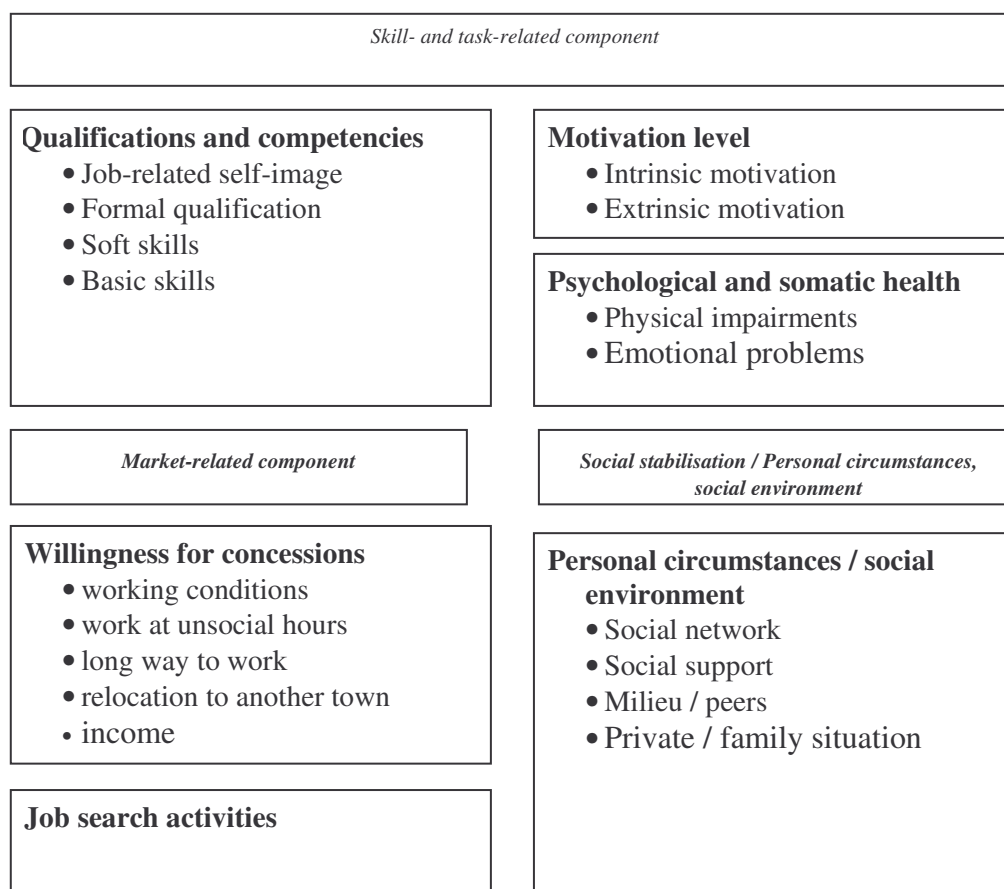
The second tradition of gradual employability is rooted in Human Resource Management (HRM). The focus is on employees and trainees, and the demands of the work process. There is a traditional emphasis on health as well; however, the focus is rather on “lifelong employability” to cope with demands to postpone the transition into retirement than on a fundamental ability to work (Ilmarinen 1999). Special emphasis is also on experiences, competencies, social skills and soft skills, attitudes towards work and professional networks. This reflects changing demands at work with a growing importance of individual responsibility, networks and a decline of formalized skill certificates.

In the third concept, employability is regarded not only as a bundle of individual traits, but context factors are considered as well. According to Gazier (1998), the first attempt was a concept of “flow employability” which was developed during the 1960s in France to account for the demand side of the labour market. McQuaid/Lindsay (2005) regard the mainstream, defining employability as gradual individual attribute, as a part of a “supply-side orthodoxy” (p. 204, 205f.), leaving the responsibility to overcome unemployment mainly to the unemployed. In contrast, McQuaid/Lindsay developed a concept which included individual attributes (skills, demographic characteristics, health, search behaviour and adaptability/mobility) as well as personal circumstances (household characteristics, supportive culture for employment in the personal environment, access to resources) or external factors. To this group belong the labour market, the macroeconomic situation, and vacancies, staffing procedures, employment policies and other supportive politics.² Gazier (1998) coined the term of “interactive employability”, focussing still on the individual „while also acknowledging that the employability of the individual is relative to the employability of others and the opportunities, institutions and rules that govern the labour market“ (McQuaid/Lindsay 2005, p. 201). Even the concept of binary employability contains a bit of interactive employability, since it refers to the “usual conditions of the general labour market”.

For the purpose of our study –to measure employability of unemployed job seekers and its changes– we refer to the concept of individual and gradual employability in the tradition of labour market policies. However, we account for context factors of the labour market and demographic characteristics of the individuals. We include in our study six dimensions of individual employability which can be summarized to three components (see tableTable 2.1):

² Similar distinctions into supply- and demand-sided elements of employability can be found at, e.g., Blancke et al. 2000 and Evans et al. 1999.

Table 2.1: Three components (*italics*), six dimensions (**bold**) of employability



Job search and further education activities are regarded as an important indication of employability, especially from the perspective of “activating labour market policy” and the PES. Job search activities include the individual desire to overcome unemployment and the capability to undertake appropriate steps to succeed on this way. The hypothesis here is that persons with more job search activities are more employable and will find more often a job.

Especially industrial psychology considers the motivational level to be an informative and causative aspect of employability. To allow for a more detailed picture, we subdivided motivation into an intrinsic and an extrinsic aspect. We assume that persons with a greater motivation will find more often a job, while we have no specific hypothesis concerning the relation between intrinsic and extrinsic components.

Willingness for concessions refers to more specific and job related aspects. This dimension reflects to what extent job seekers are willing to cope with disadvantages and displeasing circumstances in order to get a job. Again, in the “activation discourse” reservation wages and willingness to concessions play an important role. It is one of the things which can be influenced by policy guidelines – by defining conditions of transfer payments – and local PES, e.g. by enforcing sanctions. Our hypothesis here is therefore, that persons with a strong willingness for concessions have better chances to find a job.

Qualification undoubtedly is one of the most crucial dimensions of employability. However, the empirical problem is to measure actual capabilities of unemployed persons. As a pragmatic resort we decided to cover some general aspects of skills and competences as far as they can be captured by self-assessments. Thus, self-assessments on one's own quality of training and work experience and self ratings concerning soft and basic skills were included to the heuristic employability model as a prospective informative complement to the formal qualification level. The hypothesis is that persons with better qualifications and competencies find easier a job.

Since there is a current debate in Germany about "social stabilization" (meaning things McQuaid/Lindsay 2005 described as "personal circumstances" and "social environment", see above) as an important part within the activation process for long-term unemployed, we included several aspects of this dimension. We distinguished four aspects: Being part of a social network (i), receiving social support (ii), a description of milieu (iii) and some comments about the private / family situation (iv). We assume that persons with difficulties in their personal circumstances (alcohol-/drug addiction, debts, family conflict, care responsibilities) will face greater problems to find a job. Likewise, we assume that persons in environments where many people don't work will find less often a job.

Finally, individual health represents a constitutive component of employability, particularly when long-term unemployment is under consideration.

These six dimensions represent several aspects of individual employability which can be – more or less – be influenced by case managers. Case managers have – at least in theory and according to the juridical foundations of their work – instruments to cope with personal problems like debts, addiction, care responsibilities on behalf of their clients, and even more so with respect to more typical labour market problems, such as job search or skills. Other individual aspects, such as individual age, sex, and employment history, may influence job chances as well. We will account for these factors and for regional labour market chances later in our regression analysis.

3 Data and research design

The aim of the research presented here is to design an instrument which is able to "measure" employability and its changes at an individual's level. Beside our conceptual starting point and the dimensions of employability as shown above, we assume two hypotheses:

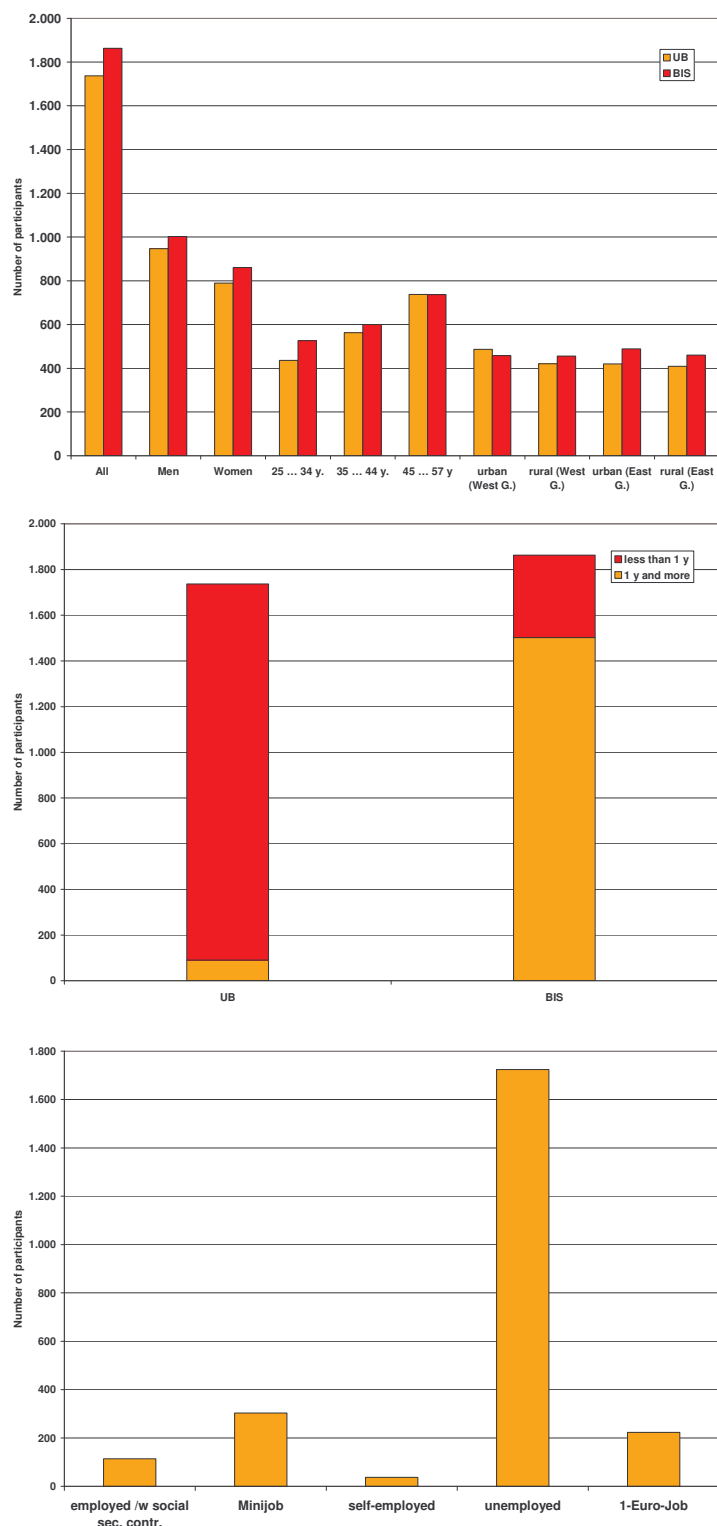
- (1) The individual employability is c.p. higher of unemployed jobseekers who succeed in finding a new job than that of those who don't succeed.
- (2) The individual employability is c.p. higher of unemployed jobseekers who became unemployed only recently than that of long term unemployed.

Both hypotheses assume that there is a „critical mass" or a threshold of individual employability when a person is employed. In the second hypothesis it remains open

whether individual employability declines over time by being unemployed, or whether a low employability of long term unemployed results from a sorting process.

According to both hypotheses, the data of the study have been defined. We conducted a survey among persons which receive transfer payments due to unemployment (unemployment benefit (UB) / basic income support (BIS)). Due to juridical restrictions, the time for receiving UB is always limited up to a maximum of 18 months (at the moment of the survey). In contrast, BIS can be received in principle for an unlimited duration (up to age 65). However, the receipt of BIS is not necessarily conditioned to unemployment and job search. BIS can be received also when an existing income does not cover minimum expenditures, and under some special circumstances – care responsibilities are the most prominent – there is not an obligation to search for a job. Nevertheless, the kind of benefit received is a valid approximation for the duration of unemployment for unemployed job seekers. Furthermore, the kind of benefit received is easy to obtain from process data provided by the BA, which is of practical value to conduct a survey.

The survey includes persons between 25 and 57 years of age. The lower age limit excludes young persons and thus problems to discuss employability in relation to professional training. The upper age limit takes a specific condition in German labour law into consideration, namely the opportunity to receive benefits due to unemployment without an obligation to search for work, which is possible for persons from age 58 or older. The sample was stratified regionally to include urban and rural regions, and regions from East and West Germany. The survey collected in September/October 2006 answers from 3,600 persons (see Table 3.1). The response rate was better among recipients of unemployment benefit (54.1%) than among recipients of basic income support (46.6%). Among the reasons are a greater proportion of “principal refusals” (33.6 vs. 30.8%), and a greater proportion of persons without sufficient German language skills (2.1 vs. 0.8%) (Emnid 2006, p. 10).

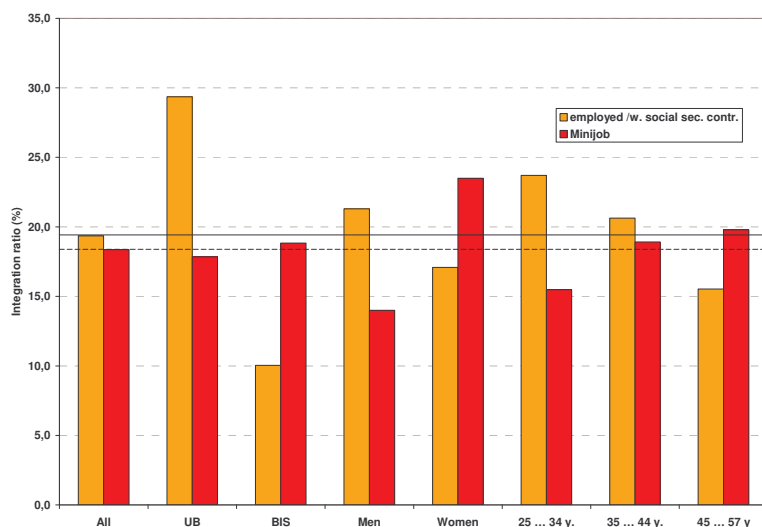
Table 3.1: Composition of the sample

Source: Pilot study, own calculations

About half a year after the survey (February 2007), the employment status of the persons surveyed was obtained from administrative data and merged to the survey data. Thus, we had a criterion to test our questionnaire. In 697 cases (19.4%) we observed a

transition into employment. The transition rate was higher among recipients of unemployment benefit compared to recipients of basic income support, it was higher among men compared to women, and it declined with age (see Table 3.2).

Table 3.2: Integration into employment six months after the survey



Source: extended employment status, own calculations

4 Empirical results

4.1 Dimensions of employability

The purpose of this section is to identify a parsimonious and efficient selection of indicators of individual employability. In the questionnaire of the pilot study, we included about 80 indicators. For technical reasons, we cannot include all of them in the regression analysis (see section 4.2 and 4.3). Moreover, the state of the theory does not allow for clear a-priori hypotheses which of these indicators are of particular importance. Therefore, we decided to make a selection based on empirical results, which we will present in this section.

Our comprehensive set of indicators was subjected to principal components analyses (PSA) aiming at testing whether the six dimensions presented in section 2 can be reproduced empirically or whether – alternatively – other empiric dimensions emerge. In order to get detailed results, these about 80 variables were not subjected to one single, but to six separate PCA, each covering one dimension (see Table 4.1; see annex, Table 6.1)³.

³ We intended to adopt as far as possible items and questions which have been tested in previous studies, such as the so called IAB-cross section survey (“Lebenssicherung und soziale Sicherung 2005”), conducted by infas, Bonn. Other contributions we included are working papers by the Federal Employment Agency (Bundesagentur für Arbeit, BA) and the Institute for Employment Research (IAB):

Table 4.1: Explorative set of indicators

<i>Skill- and task-related component</i>	
<p>Qualifications and competencies</p> <ul style="list-style-type: none"> • Job-related self-image • Having a occupational self-concept • Can assess my job opportunities • „Can present myself“ • „I’m well qualified“ • „I’ve got valuable work experiences “ • Soft skills <ul style="list-style-type: none"> • «Accuracy» • «Readiness to learn» • «Capacity for teamwork» • «Organising ability» • «Learning ability» • «Decision-making ability» • «Readiness to take on responsibility» • «Learning aptitude» • Basic skills • Reading, Writing, Calculating, Writing emails, Verbal skills, internet proficiency 	<p>Motivation level</p> <ul style="list-style-type: none"> • Intrinsic motivation <ul style="list-style-type: none"> • Further education on one’s own initiative • «Enduringness» • « active orientation» • Extrinsic motivation <ul style="list-style-type: none"> • „Most important point of working is money“ • „Working is unimportant, as long as I am otherwise secured“ • „Working wouldn’t give me additional income“
<i>Market-related component</i>	<i>Social stabilisation / Personal circumstances, social environment</i>
<p>Willingness for concessions</p> <ul style="list-style-type: none"> • working conditions <ul style="list-style-type: none"> • Long way to work (over 1.5 hours, one-way) • Adverse or changing working hours • Labour below qualification • hard working conditions (e.g.. noise, dirt) • Change of residence • Occupational change or change of previous job activity • Fixed-term job • income <ul style="list-style-type: none"> • Low income • Lower income than before • Lower income than comparable others • New job would just marginally increase household income 	<p>Personal circumstances / social environment</p> <ul style="list-style-type: none"> • Social networks <ul style="list-style-type: none"> • „I often meet with friends“ • „I know that I’m needed“ • „Don’t know many people outside my family“ • „Got only a small circle of friends“ • Social support <ul style="list-style-type: none"> • „My family and friends support my job search“ • Most important supporters and advisors within last 12 months (specifying particular persons) • „Family/partner/friends show interest in my work“ • Milieu / peers <ul style="list-style-type: none"> • „I know many people who are unemployed“ • „Many of my friends made careers “ • „I have friends who have been unemployed and found a good job“ • „Many of my friends do well without a regular job“ • Private / family situation <ul style="list-style-type: none"> • Availability within 14 days • „Can’t take up a job because of care responsibilities“ • „Can’t take up a job because of family conflicts“
<p>Job search activities</p> <ul style="list-style-type: none"> • Job-seeking within last 4 weeks • Kind of job-seeking • Number of job interviews, last 6 months • Further education activities, last 12 months 	

Rudolph / Glöcker 2004; Bundesagentur für Arbeit: „work packages 1 and 2“ (standard forms for basic information und -diagnosis for new SGB III-clients); Burmann / Sellin / Trube 2000; Trube 2005a.

Table 4.2 presents all 18 factors, which have been extracted by six PSAs.⁴ To provide a descriptive insight into the resulting variable set the factors' statistical associations with the unemployment duration are shown as well. The description of the relation between the factors and the unemployment duration serves as a plausibility check; however, it can not prove the variables' suitability as indicators for employability. This has to be left to the regressions of section 4.2.

Among the job search activities (PCA I), three dimensions emerge: First, a "general, unspecific job search" (JBS1). On this factor load mainly the items: "answering job advertisements", "self-initial applications at firms", "online search", "using private contacts". A more distinct, targeted form of job search loads on a second factor (JBS2): "Placing advertisements", and "preparing self-employment"(JBS2). Independent from both, "further education activities" emerges as a third dimension. (JBS3).

All three factors are highly associated with unemployment duration. The η -coefficients show a rather weak relation, though. As the means of the factor scores in the five categories of unemployment duration indicate, general job seeking activities (factor JBS1) are a bit more likely in the first unemployment year (.15 and .16) and decline distinctly with lasting unemployment (2 years and more: -.25). Factor JBS2, representing specific job search activities, has a correlation with unemployment duration close to zero. Nevertheless, as the sign indicates, this kind of job search activity declines with lasting unemployment as well. Further education activities (JBS3) show a reversed U-shaped association with unemployment duration. In the first six months of unemployment these activities are less frequent (-.07 und -.11) than in the second half of the first unemployment year (.25).

⁴ Strictly speaking the principal-component factor method was used for analysing the correlation matrix, what means that the communalities are assumed to be 1. Subsequently the factors were orthogonally rotated. For linguistic convenience "principal components" and "factors" are used synonymously. The number of factors to be retained was determined by the Kaiser-Guttman-criterion (Eigenvalue > 1.0).

Table 4.2: Results of six Principal component analysis (PCA) and statistical association between factors and unemployment duration

	explained variance	unemployment duration (self reported) factor scores					association	
		< 3 mths.	3 to < 6 mths.	6 to <12 mths.		2 ys. +	η	sign.
				1 to < 2 ys.	2 ys. +			
PCA I: Activity level: Job search and further education activities (8 var.)	.55							
JBS1 General, unspecific job search (answering job ads etc.)	.28	0.15	0.16	0.15	0.02	-0.25	-0.18	***
JBS2 Distinct, targeted job search (preparing self-employment /placing ads)	.14	0.07	0.07	0.08	-0.03	-0.12	-0.09	***
JBS3 Further education activities	.13	-0.11	-0.03	0.25	0.13	-0.07	0.10	***
PCA II: Motivational level (4 var.)	.60							
MOT1 intrinsic motivation	.32	0.11	0.06	-0.07	-0.05	-0.10	-0.09	***
MOT2 extrinsic motivation	.27	-0.04	0.02	-0.07	-0.04	0.08	0.06	*
PCA III: Readiness for concessions (8 var.)	.56							
CON1 re job activities (occupational change, over qualification, conditions)	.20	-0.07	-0.06	-0.02	0.11	0.08	0.07	***
CON2 re mobility demands (temporal, spatial)	.19	-0.01	0.01	0.14	0.15	-0.10	-0.09	***
CON3 re income	.17	-0.18	-0.17	-0.02	0.19	0.19	0.18	***
PCA IV: Qualification and competencies (12 var.)	.63							
COG1 Basic verbal skills (reading, writing, articulateness)	.17	0.04	0.05	-0.02	-0.05	-0.03	-0.04	
COG2 Soft skills (accuracy, organising ability, ability to learn)	.16	0.02	0.02	-0.04	-0.04	-0.01	-0.02	
COG3 Good experience / training, occupational self-confidence	.16	0.26	0.14	0.02	-0.10	-0.33	-0.24	***
COG4 IT competence	.15	0.06	0.10	0.09	0.15	-0.24	-0.15	***
PCA V: Personal circumstances / social environment (12 var.)	.51							
SOC1 Social and family support	.15	0.05	0.10	0.02	0.09	-0.16	-0.11	***
SOC2 Disintegrated social environment	.12	-0.13	-0.13	0.02	0.02	0.21	0.15	***
SOC3 Wide circle of friends	.12	0.12	0.09	0.04	-0.08	-0.15	-0.12	***
SOC4 Family conflicts and ties	.11	-0.04	-0.05	-0.09	0.00	0.08	0.06	**
PCA VI: Physical and mental health (7 var.)	.52							
PMH1 Physical troubles	.30	-0.18	-0.19	-0.10	-0.01	0.34	0.23	***
PMH2 Mental troubles	.22	-0.12	-0.11	0.03	0.02	0.17	0.12	***
	cases (n)	1,107	816	317	477	1,209		

The PCA covering the motivational level (PCA II) confirm the heuristic discrimination between a „intrinsic“ (MOT1) and „extrinsic“ (MOT2) dimension. The two items representing an intrinsic, self-regulated orientation: “enduringness” (“I can stick to a task until I get the desired result”) and ”active orientation” (“I set myself targets and pursue them without any external impulses”), load on factor MOT1. Factor MOT2 mainly exhibits the two items “Working is unimportant as long as I am otherwise secured” and “Most important point of working is money”, both expressing an extrinsically based work motivation. Neither of the two factors shows an appreciable association with employment duration. Although significant, the values are close to zero.

According to PCA III, readiness for concessions splits into three different aspects. The first refers to genuine occupational and job related issues: “occupational change”, “work below qualification” and “unpleasant conditions“ (CON1). This factor doesn’t show an association with unemployment duration. Concessions concerning mobility demands load on a second factor (“change of residence”, ”long way to work”, “inconvenient or changing working hours”) (CON2). This kind of readiness to compromise is more likely to be found at a “midrange” length of unemployment between half and less than two years (.14 und .15) and declines afterwards (-.10).⁵ The third aspect represents compromises about income: (“lower income” and “less income than comparable other employees”) (CON3). This factor exhibits a clear association with employment duration. The readiness to work for low wages increases continuously with proceeding unemployment length. It increases from -.18 in the first three months of unemployment up to .19, when the stage of long-term unemployed (one year and over) has been reached.

The complex of qualifications and competencies (PCA IV) splits up into four empirical independent aspects. The first is related to basic communicative abilities: reading, writing and verbal skills (COG1). The second combines soft skills as accuracy, organising capabilities, ability and readiness to learn (COG2). The third represents good work experience und training (COG3). Finally, the fourth factor stands for IT competence (COG4).

Only the last two aspects show a statistical association with unemployment duration. Occupational self-confidence – presumably based on good work experience and training – can be found more often among individuals who became unemployed only recently (< 3 months: .26). After the second year of unemployment, this kind of confidence declines drastically (2 years and more: -.33). We have here the strongest association between one of the factors and unemployment duration: The means’ differences of the factor scores between the highest and lowest category of unemployment duration amounts to more than a half standard deviation (.59).

The PCA related to personal circumstances and social environment (PCA V) comprises quite different aspects and living conditions issues. Based on 18 variables in total, four

⁵ Figures in brackets are, if not indicated otherwise, factor scores. Factor scores underwent a Z-transformation, i.e. the sample mean is zero and the standard deviation

independent dimensions emerge. The first combines “social and family support” (SOC1), based on a list of “most important supporters and advisors within last 12 months” and approval / disapproval to the item “My family, partner, friends show interest in my work”.

The second factor, which may be summed up as “disintegrated social environment” (SOC2), consists mainly of approvals to “I know many people who are or were unemployed” and „Many of my friends do well without a regular job“ and a strong disapproval to “I know many friends who have been unemployed and found a good job “. The third factor stands for a “large circle of friends“ (SOC3), whereas factor SOC4 points to “family conflicts and ties“. The latter comprises two strong main loadings of the items „I can’t look for a new job or apprenticeship, because I have to care for children or other family members“ and „I can’t look for a new job or apprenticeship, because I have too many conflicts with my family at the moment“ and a secondary loading of the item: „Many of my friends cope well with having no regular work“ (mentioned above).

All four factors are associated with unemployment duration. Those having been unemployed for the longest time (2 years and over) receive the least family and social backing (SOC1: -.16), show characteristics of disintegrated social environments (SOC2: .21), don’t have a large circle of friends (SOC3 -.15) and agree strongest with the statement that they can’t work due to family conflicts and care responsibilities (SOC4: -.08).

Additional analyses reveal that the associations with unemployment duration are partly overlaid by age effects. The younger receive more often family and social support (SOC1). Likewise, factor SOC2, indicating a „disintegrated social environment“ and factor SOC3, standing for a “large circle of friends” (SOC3) exhibit clear above-average scores for the younger groups. Family conflicts (SOC4) show an U-shaped relation with age. These problems and obligations seem to exist mostly in the mid-age group (35-44 years).

Finally, PCA VI on physical and mental health (with eleven variables) reproduces both aspects as independent dimensions. Factor PMH1 combines low scores for daily work ability and the overall assessment of the individual state of health. Problems to stick to a work due to alcohol, drugs and other physical impairments, also loads on this factor. Factor PMH2 is mainly shaped by the approval to the item “I often feel half-hearted and depressed” and the disapproval of “Even at utmost critical occurrences I mostly find positive aspects, though.” Both items indicate a rather depressive attitude. This impression gets support by the high loadings of the two medical conditions on this factor “troubles with the nerves”, ”anxieties” and “sleep disturbance”. The two latter items exhibit sizable secondary loadings on the somatic factor PMH1 as well.

Summing up the PCA results, three results emerge:

is one. Mean differences between categories higher than .30 are highlighted and considered as indication of appreciable associations.

1. The dimensions which initially had been considered as important components of employability by theoretical considerations can in fact be empirically reproduced by quantitative survey methods. This is a crucial precondition to make employability accessible to econometric analyses.
2. The empirically emerged dimensions show plausible statistical associations with the unemployment duration. This plausibility check suggests that the applied variables might indicate approximately what they were supposed to indicate, i.e. they seem to be valid.
3. The original quite large assortment of variables could be condensed to a rather small set of variables. Based on multivariate data reducing processes measuring employability finally requires only little more than 12 to 15 variables.⁶ This is essential for the next step (see section 4.2).

4.2 Employability and later integration into employment

In this section we discuss whether the dimensions of personal employability are linked to a later integration into employment. For this purpose, we use administrative data about the employment status ca. six months after the survey (see above); this is the dependent variable in our analysis. We only consider integration into employment with social security contributions. One could argue that integration into any job – including marginal jobs without social security contributions (so called “Mini-jobs”) – indicates individual employability. However, we cannot decide whether a person wants to have only a “Mini-job”, or whether a person cannot get a job with social security contributions due to a lack of employability. We exclude from our analysis recipients of basic income support who are employed (including self-employed), i.e. the analysis is restricted among recipients of basic income support to persons who are unemployed or in labour market programmes.

As independent variables we choose a selection from the complete range of variables. The selection is based on the results in section 4.1.⁷ In some cases, we transformed variables: Soft skills have been integrated into an index variable with a maximum value of 4 for persons who agree on all possible (4) items concerning soft skills.⁸ Likewise, an index for personal traits was created.⁹ Individual health was based on two variables (general-self assessment of individual health [from 1 – very good, to 5 – bad], and self-assessment of daily workability in hours [from 1 – less than 3 hours to 4 – 8 hours or

⁶ Another analysis of this data set could demonstrate that the explanatory power of probit models to “predict” labour market performance (being in regular employment about ten months after interview) can significantly be increased by even using only the “marking variables” of these 18 factors, see Apel / Fertig 2008.

⁷ For a complete list of variables and their descriptive statistics, see table Table 6.2.

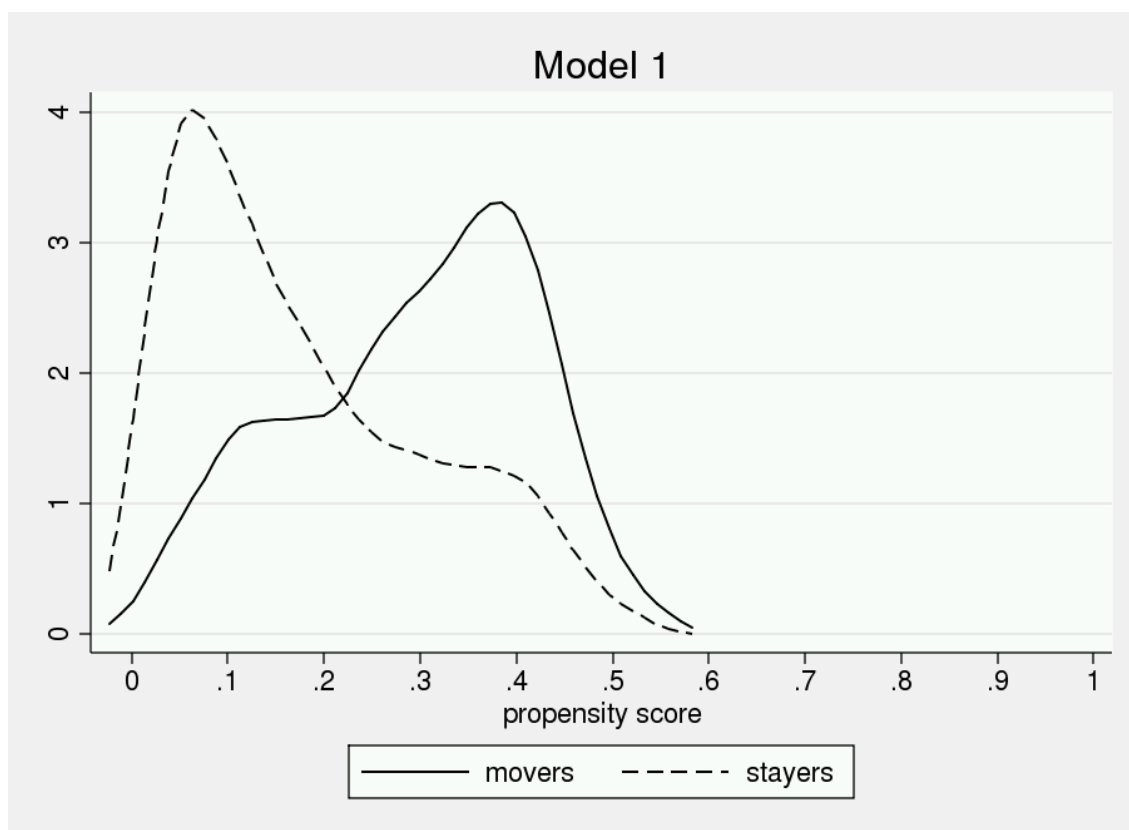
⁸ Accuracy, readiness to learn, capacity for teamwork, readiness to take on responsibility

⁹ “I meet regularly with friends”, “I like to take responsibility”, “I know that someone needs me”, “I feel often depressed”; the coding of the last item was reversed.

more]) and transformed into an ordinal variable consisting of three groups (good, medium, bad).¹⁰

We used probit estimations with robust standard errors to estimate the probability of integration into employment with variables of employability and additional variables controlling for sociodemographic and regional characteristics. Table 4.3 shows the distribution of the individual probabilities for two groups: “Movers”, who are in employment six months after the survey – where they have been unemployed –, and “stayers”, i.e. persons who are (still or again) unemployed. Both distributions differ significantly. Based on the personal characteristics (employability, sociodemographic and regional characteristics) the probability to find a job is higher for those who succeeded in finding a job.

Table 4.3: Propensity for a transition into employment, movers and stayers



Source: Pilot study, own calculations

However, there are cases „against the odds“: 21.% of the movers could find a job despite the individual employability was below the average. 68.5% of the persons with an employability above the average could not find a job (see Table 4.4).

¹⁰ The individual health status is regarded as good when the overall self-assessment is 2 or better and workability is at least 8 h per day. It is bad when the overall self-

Table 4.4: Test of medians

employability Above average ↓	employed		employed		Abs.
	no	yes	no	yes	
			In %	In %	
No	91,6	7,4	57,2	21,0	1661
Yes	68,5	31,5	42,8	79,0	1661
	2659	663	100,0	100,0	

Pearson chi2(1) = 277.8627 Pr = 0.000

Source: Pilot study, own calculations

Thus, a level of individual employability above the average is not sufficient to enter employment. Reasons can be seen in individual preferences and institutional opportunities to refrain from employment (e.g. care responsibilities), but mainly in regionally differentiated employment opportunities. In regions with high unemployment, persons with a better employability are more often unemployed (see ZEW et al. 2007, p. 160).

How correlate the indicators of employability with the transition into employment? For this question, we discuss the regression coefficients. It should be emphasized that the dependent variable (employed/unemployed) refers to a later point of time than the observation of the characteristics of individual employability. We thus avoid problems in the causal interpretation of the indicators (see tables in the annex).

Some of the control variables have a strong influence on job integration, among them age and kind of benefit (as a proxy for duration of unemployment). Both variables are among the most influential. Regional location (as a proxy for employment opportunity) is also influential. Younger persons, short-term unemployed and inhabitants in West German urban areas have a higher transition rate. This fits to other studies analysing determinants of quitting unemployment (Frosch 2007).

However, to account for individual characteristics of employability increases the explanatory power of the model significantly. All dimensions influence the transition into employment; however, only some of the selected indicators are significant.

Being in good health increases the probability to find a job, and lacking formal qualifications decreases it. Personal characteristics have weak influence, while social skills have not. Job search characteristics are not significant, with one – almost trivial – exception: The transition probability is lower when applications did not result in an interview for a job. Rather, the interesting point here is that the transition probability *does not* rise with a growing number of interviews. There is no statistical difference in the transition into employment for persons with only 1 or 2 interviews on the one hand and persons with 3 or more interviews on the other. One explanation could be inherent problems of the indicator.¹¹ Another explanation would argue that interviews reveal personal characteristics which remain hidden in written applications, and which might im-

assessment is 4 or worse or workability is less than 3 h per day. All others count as “medium”.

¹¹ The number of interviews refers to the last 6 months; however, many recipients of UB may have searched for a job only a shorter period.

pede a success. Another interpretation of the missing correlation between the number of interviews and the transition probability is that unemployed job seekers tend to accept the first offer and do not search further out of unemployment. Due to the conditions within the Basic income support, this behaviour would lead to financial sanctions. Among the willingness to accept concessions, only the willingness to work at “unsocial hours” increases the transition rate.

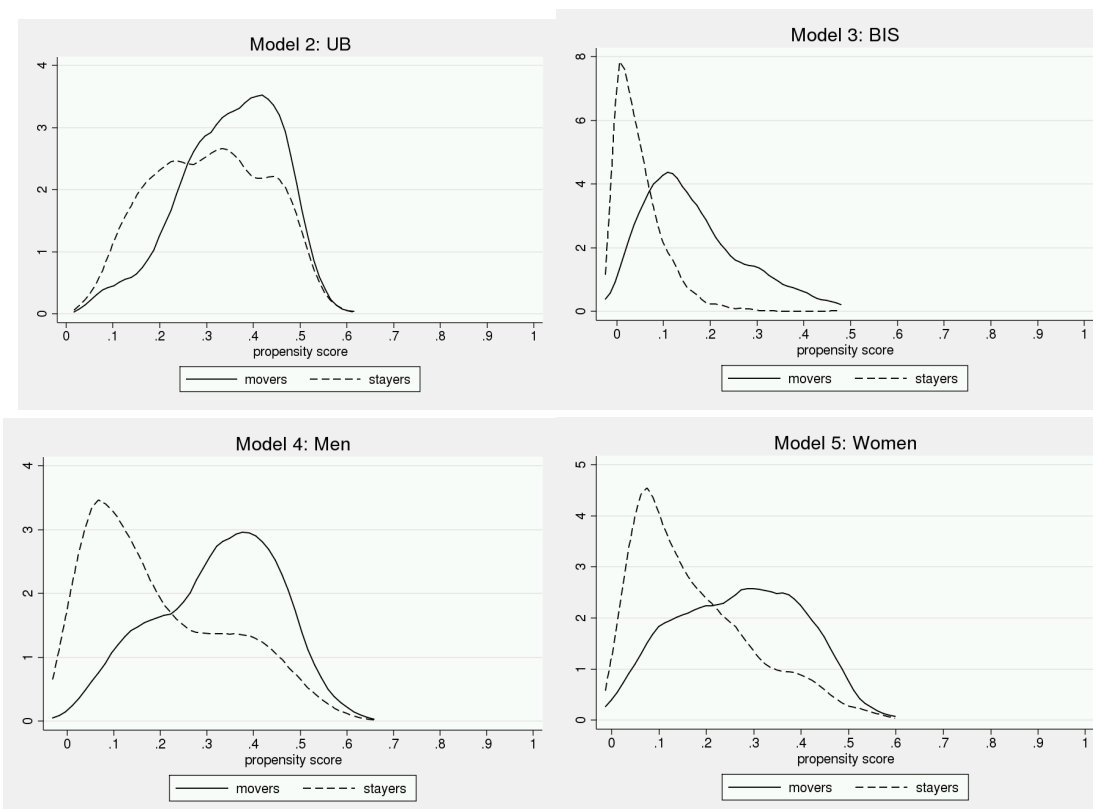
Finally, some indicators for personal circumstances and the social environment (subsumed here as “social stability”) have an effect on the later transition into employment. Most important – and compared to other indicators within the model of particular influence – is an alcohol- or drug addiction. Living in an environment where many persons live on basic income support lowers the transition rate, while having personal support from friends and relatives increases it, if only slightly.

All of the significant correlations show into a plausible direction. Most of the strong “individual” indicators, such as formal qualification and health, should be easy to observe, others, such as alcohol- or drug addiction requires sensitive case managers. However, even with transparent characteristics, such as health and formal qualification, there is a broad range. Evaluating the employability of individuals based on transparent characteristics needs careful case managers. Other characteristics, such as willingness to concessions, search behaviour, personal characteristics, are influential. These indicators are harder to measure. However, their impact is limited, at least when there is a variation in external circumstances (regional employment opportunities), and fundamental individual characteristics. For healthy men of similar age within a given region, the transition into employment might be influenced by these “soft” factors.

4.3 Different configurations of employability?

In this section we analyse whether different „target groups“ differ in their profile of employability. However, our data allow only for some rudimentary differentiation between target groups: Recipients of UB and BIS on the one hand, and men and women on the other. First we discuss the estimation results of separate regressions for each of these groups. Next we present the results of a gender-specific model for recipients of BIS.

Table 4.5: Transition propensities for recipients of UB and BIS and men and women



Source: Pilot study, own calculations

A comparison between the coefficients for the UB-model with the BIS-model shows a better fit for the BIS-model. The distribution of the individual transition propensities differ stronger between movers and stayers who received BIS than between movers and stayers who received UB (see Table 4.5).¹²

Since this study was designed as a pilot study to measure employability particularly of recipients of BIS, we intended to use dimensions and indicators suited for recipients of BIS. A possible reason for stronger differences between movers and stayers among recipients of BIS is that the employability has a smaller variance within the group of recipients of UB due to a shorter period of unemployment.

The overall profile of employability is very similar between both groups. There is no indicator which has significant relation in one direction for recipients of UB and into another direction for recipients of BIS. There are, however, a number of variables which are significant in one group only. For example, bad individual health lowers transition rates for recipients of BIS, while good individual health does not increase them (in contrast to the general and UB-specific model).

¹² Another indicator is a better explanation of variance (Pseudo R Square) for the BIS-model.

Looking at recipients of BIS separately, the dimension „individual job search resources“ is of some significance. These indicators attempt to reflect individual strengths which are not formalized. For instance, a person without formal qualification might have valuable work experiences, or even valuable skills. However, the picture is not easy to understand, because – according to the data – self assessed good qualifications lead to higher transition rates, while self-assessed good experiences lead to lower transition rates. Somewhat surprisingly, willingness to concessions does not play a role for recipients of BIS.¹³ The main effect of the general model – higher transition rates for those who are willing to work at unsocial hours – is restricted to recipients of UB. For recipients of BIS, the individual probability to find a job is influenced by personal circumstances and social environments. The effects of this dimension in the general model are concentrated among recipients of BIS. As the descriptive analysis shows, the significant indicators (alcohol- / drug addiction and “know many persons receiving BIS”) are more prevalent among recipients of BIS.

The control variables have a very similar effect for both groups. There is an interesting difference concerning age: Recipients of BIS older persons have lower transition probabilities, while there is no age effect for recipients of UB.

Likewise, the separate models for men and women are quite similar. This is hardly surprising, since there was neither a gender effect in the general model nor in the separate models for recipients of UB and BIS. However, the individual propensities to enter employment differ between men and women (see Table 4.3).

There are only four remarkable differences concerning the determinants of a transition into employment, two of them concern control variables:

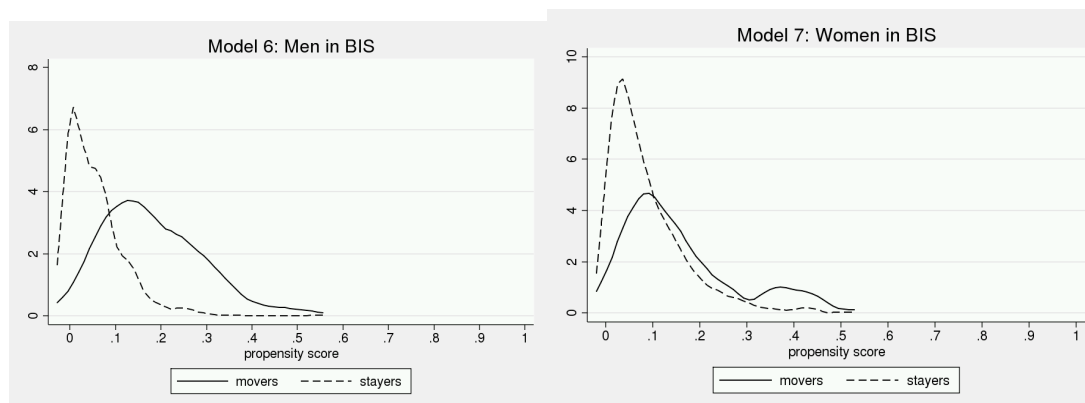
Women decrease their chances if they are not able to work at unusual times, such as week ends, or during the night. As the descriptive analysis show, less women than men are able to do so (64.9 vs. 82.8%). Men, on the other hand, have a much lower probability to enter employment if they have alcohol- or drug problems. For women, this indicator is not significant. Interestingly, the descriptive statistics show only little difference between men and women who said to have an alcohol- or drug problem (11.1 [m] vs. 9.5% [w]). And while women have in all regions lower transition rates compared to the reference region (West German urban areas), men have higher transition rates in East German rural areas, compared to the reference group. One explanation could be different opportunities for spatial mobility. Finally, the age effect (less chances when older) is quite clear for women, while it is concentrated for men in the old age group.

Finally, we discuss two separate models for men and women who receive BIS. Due to a lower number of cases we reduce the covariates. We exclude indicators which have not been significant in the previous models. However, none of the control variables will be excluded.

¹³ As can be seen later, there is a gender-specific effect within the group of recipients of BIS

Differences between movers and stayers can be found in particular among men who receive BIS, and less among women. Less than 10% of the women who received BIS succeeded in finding a job (8.92%) (see Tabelle 4.6).

Tabelle 4.6: Propensity scores for men and women receiving Basic Income Support (ALG 2)



Source: Pilot study, own calculations

Again, there are only minor differences in the respective profiles of employability, and most of the correlations have been already discussed. For BIS-receiving men, having alcohol- or drug problems is the strongest influence. A circle of friends with many BIS-receivers lowers the propensity to find a job as well. Interestingly, there is no age effect for men and only a weak influence of skills and qualifications. For women, the region and the age are influential (i.e. control variables which do not belong to the individual employability), and formal qualifications have a relatively strong influence. BIS-receiving women who are able to work at unusual hours have a higher chance to find a job, as was to be expected from the previous discussion. However, the influence of the indicators of individual employability on later job integration is comparatively low. The inclusion of the “employability-variables” increases the fit of the model compared to a model consisting only of control variables, but the test is only on a 10%-level significant.

5 Summary

The aim of the pilot study was to develop an instrument to measure employability which can be used in large scale quantitative surveys. Our questionnaire included some aspects of employability which are hard to observe, such as search behaviour or willingness to concessions. About these and other dimensions of employability, administrative data do not provide any information. To test the prognostic value of our instrument, we included information about the employment status six months after the survey. The self-reported aspects of employability have been collected before a change in the employment status took place. With this design, differences in the propensity to find a job might be caused by differences in individual employability.

In this paper, we focussed on two questions:

- (1) Is it possible to reproduce dimensions of employability empirically, and is it possible to reduce a wide range of indicators of employability to a small selection which can be used as a small section within a standardized questionnaire?
- (2) Do empirical relations exist between individual employability and a later integration in employment?

The dimensions which initially had been considered as important components of employability emerged in the data we obtained by quantitative survey methods. The original quite large assortment of variables could be condensed to a rather small set of variables.

The results of the probit-estimations show: The prediction of later integration into employment is better when individual employability is considered. Empirically, health is one of the most important factors. Even stronger is a drug- or alcohol addiction; however, only a few persons reported this problem.

According to our results, willingness to concessions and search behaviour are only of minor importance, especially when compared to health. This does not mean that search behaviour and concessions are unimportant; it rather means that concessions and search behaviour differentiate after basis requirements of employability are met, such as health or skills.

Despite of differences in separate models of employability for different groups, the conformity of the models prevails. This is an argument in favour of a general model of employability for all instead of several models for “problem groups” of the labour market. It does not mean, however, that a profiling of job searchers is not useful, nor that specific programmes for “problem groups” are not useful. The “mechanism” of problems to enter employment is in different groups similar, although it might be different between groups which problems stand out.

Our results show also, that individual employability is necessary but not sufficient. Regional employment opportunities are an essential element to quit unemployment. This relation is stronger for women than for men. Possible reasons might be that men are more often “first mover”, while female partners are “tied” and thus are locally bound. Another hypothetic explanation is that in regions with low opportunities men find more often a job than women, or that PES focus on men rather than on women. However, this would contradict the intention of activation which is to provide support to the labour market to everybody regardless of gender.

Finally, our results show that a stimulation of individual employability should be an element of activating labour market policy. But this element should not be overstretched, because individual employability is a necessary but not sufficient element to enter employment.

Literature

- Apel, H. (2006): Beschäftigungsfähigkeit und soziale Stabilisierung. Ein Überblick über Inhalt und Operationalisierung. Köln: ISG
- Apel, H. / Fertig, M. (2008): Operationalisierung von „Beschäftigungsfähigkeit“ – Ein methodischer Beitrag zur Entwicklung eines Messkonzepts. Köln: ISG.
- Blancke, S. / Roth, Chr. / Schmid, J. (2000): Employability ("Beschäftigungsfähigkeit") als Herausforderung für den Arbeitsmarkt. Auf dem Weg zur flexiblen Erwerbsgesellschaft. Eine Konzept- und Literaturstudie. (Arbeitsbericht, 157). Stuttgart: AfTA.
- Bundesagentur für Arbeit (undated). „Work packages 1 and 2“ (standard forms for basic information und -diagnosis for new SGB III-clients).
- Burmann, N. / Sellin, Chr. / Trube, A. (2000): Ausstiegsberatung für Sozialhilfeempfänger. Konzepte, Instrumente und Ergebnisse eines vergleichenden Modells, Frankfurt; Deutscher Verein für öffentliche und private Fürsorge.
- Deeke, A. / Kruppe, T. (2003): Beschäftigungsfähigkeit als Evaluationsmaßstab? Inhaltliche und methodische Aspekte der Wirkungsanalyse beruflicher Weiterbildung im Rahmen des ESF-BA-Programms. (IAB-Werkstattbericht 01/2003), Nürnberg: IAB.
- Emnid (2006): Vorstudie Beschäftigungsfähigkeit. Methodenbericht. Ms., Bielefeld.
- Erlinghagen, M. / Knuth, M. (2008): Why are Germans unemployed but British people incapacitated? – Uncovering institutional myths about national success stories of activation. Presentation at the Conference “Activation policies on the fringes of society”. Nuremberg, May 15-16, 2008.
- Evans, C. / Nathan, M. / Simmonds, D. (1999) : Employability through Work. Manchester : Centre for Local Economic Strategies.
- Fromm, Sabine / Sproß, Cornelia (2008): Die Aktivierung erwerbsfähiger Hilfeempfänger. Programme, Teilnehmer, Effekte im internationalen Vergleich. (IAB-Forschungsbericht Nr. 01/2008) Nürnberg: IAB .
- Frosch, K. (2007), Zu alt für einen neuen Job? – Altersspezifische Wiederbeschäftigungschancen nach Verlust des Arbeitsplatzes, Wirtschaftspolitische Blätter, 4: 641-656.
- Gazier, B. (1998a) : Observations and recommendations, in: Gazier, Bernard (ed.), Employability: Concepts and policies. Employment Observatory Research Network, Report 1998. Berlin: European Employment Observatory, pp. 298-315.
- Gazier, B. (1999b): Employability – definitions and trends, in: Gazier, Bernard (ed.), Employability: Concepts and policies. Employment Observatory Research Network, Report 1998. Berlin: European Employment Observatory, pp. 37-71.
- Gazier, B. (2001): Employability: The complexity of a notion, in: P. Weinert / M. Baukens/ P. Bollerot et al. (eds.), Employability: From theory to Practice, New Brunswick, NJ: Transaction Books, pp. 3-23.
- Ilmarinen, Juhani (1999): Ageing workers in the European Union. Status and promotion of work ability, employability and employment. Helsinki: Finnish Institute of Occupational Health.
- McQuaid, R. W. / Lindsay, C. (2005): The concept of employability, in: Urban Studies, vol. 42, No. 2 (February 2005), pp. 197-219.
- Rudolph, Helmut / Glöcker, Rainer (2004): Vom Profiling, den Vermittlungshemmnissen und den Zuweisungskriterien zum Fallmanagement – Eine Einführung.
- Trube, Achim (2005): Evaluation von Maßnahmen zur Stärkung der Beschäftigungsfähigkeit für Betreuungskunden. Working papers 1-3 for the pilot project § 421i SGB III by Bundesagentur für Arbeit, Düsseldorf.

- Trube, Achim / Hinck, Sven / Stühn, Dennis / Weiß, Carsten (2005): Evaluation des Modellprojekts „AGRIGENT“. Zusammenfassende Darstellung der ersten quantitativen Ergebnisse zur standardisierten Befragung – 1. Kohorte (Erstes Halbjahr 2005). 3. Bericht. Siegen..
- ZEW et al. (2007): Evaluation der Experimentierklausel nach §6c SGB II - Vergleichende Evaluation des arbeitsmarktpolitischen Erfolgs der Modelle der Aufgabenwahrnehmung « Optierende Kommune » und « Arbeitsgemeinschaft ». Untersuchungsfeld 3 : Wirkungs- und Effizienzanalyse. Erster Bericht. Mannheim.

6 Annex

Table 6.1: Six principal component analyses (PCA), results

PCA I: Activity level: Job search and further education activities

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Factor2	Factor3	Uniqueness
answ_job_ads	0.7701			0.3966
putting_ads		0.5929		0.5945
use_priv_rel	0.7008			0.4811
former_emplo	0.4019		-0.5158	0.5585
online_searc	0.6836			0.4674
proact_appli	0.7215			0.4792
prep_slf_emp		0.8310		0.3085
further_educ			0.8302	0.2902

(blanks represent $\text{abs}(\text{loading}) < .3$)

PCA II: Motivational level

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Factor2	Uniqueness
money_import		0.7747	0.3779
job_unimport		0.7008	0.4632
endurance	0.7820		0.3880
proactive	0.7842		0.3847

(blanks represent $\text{abs}(\text{loading}) < .3$)

PCA III: Readiness for concessions

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Factor2	Factor3	Uniqueness
long_way		0.6804		0.4682
work_hours	0.3601	0.6545		0.4327
over_qualif	0.6823		0.3338	0.4231
work_condi	0.6654			0.5191
change_resid		0.7391		0.4227
change_occup	0.6993			0.5031
low_income			0.7996	0.3472
lower_income			0.7343	0.4240

(blanks represent $\text{abs}(\text{loading}) < .3$)

PCA IV: Cognition own abilities (self image)

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Factor2	Factor3	Factor4	Uniqueness
sell_myself		0.5805			0.5604
good_qualifi		0.8110			0.2942
work_experie		0.8242			0.2981
accuracy			0.6027		0.5234
readin_learn			0.7418		0.3819
abil_organis			0.5660		0.5172
abil_learn			0.7126		0.4245
mark_readin	0.8155				0.2878
mark_write	0.8124				0.2752
mark_emails				0.8435	0.2125
verb_skills	0.6500				0.4414
online_inqui				0.8598	0.2040

(blanks represent $\text{abs}(\text{loading}) < .3$)

PCA V: Personal circumstances, social environment

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Factor2	Factor3	Factor4	Factor5	Uniqueness
meet_friends		0.7630				0.4006
few_friends		-0.7488				0.4160
being_backed	0.5944					0.5587
supp_partner					0.9387	0.1098
supp_close_r	0.7318					0.4276
supp_remot_r	0.5259				-0.3000	0.5012
supp_nobody	-0.7783				-0.3442	0.2636
many_unemploy			0.8051			0.3488
succ_friends			-0.6634			0.4682
fr_no_reg_jb			0.5402	0.3174		0.5910
care_obligat				0.7506		0.4184
fam_conflicts				0.7537		0.3891

(blanks represent abs(loading)< .3)

PCA VI: Physical and mental health

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Factor2	Uniqueness
state_health	-0.7337		0.4102
anxiety_ne~s	0.4532	0.5431	0.4997
sleep_disord	0.4612	0.4734	0.5632
work_capabil	-0.7535		0.4317
depressed	0.3303	0.5889	0.5441
pos_prospect		-0.7303	0.4375
alcohol_drugs	0.7301		0.4659

(blanks represent abs(loading)< .3)

Source: Pilot study, own calculations

Table 6.2: Descriptive statistics

	All	UB	BIS	Men	Women
Formal qualification					
<i>Reference: medium</i>					
low	.1313043	.0805987	.1827204	.1149548	.1508593
	.3377819	.2722963	.38655	.3190523	.3580257
high	.0852174	.0944157	.0758903	.0840873	.0865691
	.2792454	.2924903	.2648998	.2775925	.2812921
Basic skills					
Reading	1.994058	1.931779	2.05721	2.123204	1.839593
	.7540609	.7108304	.7907148	.7949281	.6703822
Mathematics	2.317681	2.204375	2.432574	2.286855	2.354551
	.8876952	.8069566	.9491949	.8884495	.8856661
E-mail, Internet	2.456232	2.370178	2.543491	2.436668	2.479631
	1.603254	1.47052	1.723516	1.573706	1.638091
Soft skills					
Social competencies	3.710145	3.786989	3.632224	3.684939	3.740293
	.6044545	.5052637	.6820038	.6367699	.5620931
Personality	3.278841	3.439839	3.115587	3.259713	3.301719
	.8489509	.7474855	.912374	.8563676	.8396941
Health					
<i>Reference: medium</i>					
good	.5014493	.587795	.4138938	.5524215	.4404838
	.5000704	.4923734	.4926737	.4973768	.4966033
bad	.2063768	.1473805	.2661996	.1750931	.2437938
	.4047628	.3545869	.442099	.3801479	.4295064
Search behaviour					
<i>Reference: 2 ways</i>					
0	.0023188	.0017271	.0029189	.002661	.0019096
	.0481055	.0415346	.0539633	.0515298	.0436713
1	.0127536	.0120898	.0134267	.0101118	.0159134
	.1122257	.1093185	.1151269	.1000742	.1251805
3	.8165217	.8641336	.7682428	.8302288	.8001273
	.3871142	.3427454	.4220779	.3755316	.4000318
Job talks					
<i>Reference: 1 ... 2</i>					
0	.3484058	.318365	.3788675	.3022885	.4035646
	.4765344	.4659761	.4852467	.4593718	.4907683
3	.424058	.4369603	.4109749	.4795104	.3577339
	.4942708	.4961529	.4921544	.499713	.4794859
Individual resources					
Good skills	.6086957	.7052389	.5107998	.639702	.5716104
	.488113	.4560666	.5000293	.4802146	.4950029
Good experiences	.6918841	.7702936	.6123759	.7269824	.6499045
	.4617817	.4207651	.4873503	.4456284	.4771515
Helpful network	.5330435	.5854922	.4798599	.5364556	.5289624
	.4989793	.4927787	.4997401	.498802	.4993194
Concessions					
Unsocial work hours	.746087	.7547496	.737303	.8275679	.6486314
	.4353115	.4303595	.4402277	.3778562	.4775498
Unpleasant conditions	.7521739	.7236615	.7810858	.792975	.7033736
	.4318129	.447315	.413631	.4052815	.4569158
Low income	.4802899	.373057	.5890251	.3853113	.5938892
	.4996838	.4837563	.4921544	.4867983	.4912621
Personal circumstances / social environment					
debt	.1063768	.0529649	.1605371	.1341139	.0732018
	.308364	.2240279	.3672106	.3408654	.2605504
Alcohol / drugs	.1034783	.0673575	.1401051	.1106972	.094844
	.3046267	.2507123	.3471974	.3138403	.2930927
Family conflicts	.1492754	.1226252	.1762989	.1330495	.1686824
	.3564113	.328101	.3811855	.3397186	.3745904
Supportive network	1.204638	1.328152	1.079393	1.16711	1.249523
	.8614561	.8769164	.8271116	.8470733	.8765113
Know many with BIS	.4768116	.4185377	.5359019	.4970729	.452578
	.4995344	.4934613	.498855	.5001245	.4979046
Know succesful friends	.6165217	.6977547	.5341506	.6141565	.6193507
	.4863036	.4593632	.498978	.4869235	.4857011
Family interested in me	.813913	.8865861	.7402218	.7897818	.8427753

Many friends without job	.3892332 .2118841	.3171894 .1744387	.4386408 .2498541	.407572 .217669	.3641284 .204965
	.4087024	.3795956	.4330548	.412771	.4038046
Men (1), women (0)	.5446377	.5451929	.5440747		
	.4980757	.4980968	.4981991		
Region <i>Reference: west german, urban</i>					
West german, rural	.2411594 .4278488	.2423719 .4286415	.2399299 .4271652	.2394891 .4268853	.2431572 .4291259
East german, urban	.2513043 .433826	.2417962 .4282948	.2609457 .4392786	.250133 .4332048	.2527053 .4347017
East german, rural	.2434783 .4292435	.2354634 .4244103	.2516054 .4340623	.2304417 .4212277	.2590707 .438264
Age <i>Reference: 25 ... 34 y</i>					
	0	0	0	0	0
35 ... 44 y	.3237681 .4679806	.324122 .4681807	.3234092 .467914	.3182544 .4659228	.3303628 .4704935
45 ... 57 y	.4104348 .491984	.4248705 .4944657	.3957968 .489164	.3991485 .4898537	.4239338 .4943374
Unemployment duration 1 y or more		.0523892	.8190309		
		.2228747	.385105		
BIS				.4960085	.4971356
				.5001172	.500151
Cases	3450	1737	1713	1879	1571

	Men in BIS	Women in BIS
Formal qualification <i>Reference: medium</i>		
low	.1577253 .364679	.212548 .4093726
high	.0772532 .2671362	.0742638 .2623677
Basic skills		
Reading	2.201717 .8314296	1.884763 .701764
Mathematics	2.418455 .9446568	2.449424 .9549146
E-mail, Internet	2.559013 1.70305	2.524968 1.748539
Soft skills		
Social competencies		
Personality	3.095494 .9272698	3.139565 .8942748
Health <i>Reference: medium</i>		
good	.4603004 .4986891	.3585147 .4798716
bad	.2339056 .4235401	.3047375 .4605911
Search behaviour <i>Reference: 2 ways</i>		
0		
1		
3		
Job talks <i>Reference: 1 ... 2</i>		
0	.3444206 .4754341	.4199744 .4938706
3	.445279 .4972634	.3700384 .483124
Individual resources		
Good skills	.554721 .4972634	.4583867 .4985846
Good experiences	.6641631 .4725358	.5505762 .4977542

Helpful network		
Concessions		
Unsocial work hours	.8347639	.6209987
	.3715929	.4854493
Unpleasant conditions	.8165236	.7387964
	.3872644	.4395722
Low income	.5171674	.6747759
	.4999735	.4687587
Personal circumstances / social environment		
debt	.2027897	.1101152
	.402293	.3132339
Alcohol / drugs	.1480687	.1306018
	.3553587	.3371803
Family conflicts	.1459227	.212548
	.3532183	.4093726
Supportive network		
Know many with BIS	.5407725	.5300896
	.4986024	.4994136
Know succesful friends		
Family interested in me		
Many friends without job		
Men (1), women (0)		
Region		
Reference:west german, urban		
West german, rural	.2414163	.2381562
	.4281719	.4262282
East german, urban	.2542918	.268886
	.4356962	.4436647
East german, rural	.2424893	.262484
	.4288188	.4402662
Age		
Reference: 25 ... 34 y		
35 ... 44 y	.3143777	.3341869
	.4645168	.4720077
45 ... 57 y	.389485	.4033291
	.4878953	.4908801
Unemployment duration 1 y or more	.7982833	.84379
	.4014973	.363287
BIS	1	1
	0	0
Cases	932	781

Normal: mean, grey: standard deviation

Source: Pilot study, own calculations

Table 6.3: Regression statistics

	Alle	ALG	ALG II	Männer	Frauen
Formal qualification					
<i>Reference: medium</i>					
low	-.268***	-.354**	-.162	-.326	-.220
high	.097	-.029	.290***	.2015	-.019
Basic skills					
Reading	-.004	-.050**	.065	.003	-.002
Mathematics	-.056	.021	-.166***	-.064	-.038
E-mail, Internet	.006	-.015	.049***	.021	-.017*
Soft skills					
Social competencies	.005	.016	.036	.004	-.005
Personality	-.028***	.046	-.125*	-.011	-.052**
Health					
<i>Reference: medium</i>					
good	.137***	.224***	-.026	.087	.214***
bad	-.228***	-.160**	-.317***	-.283***	-.178***
Search behaviour					
<i>Reference: 2 ways of searching</i>					
0	.139		.460		.972*
1	-.406	-.7112***	.012	-.276	-.454
3 and more	.062	.062	.100	.090	.036
Job talks					
<i>Reference: 1 ... 2</i>					
0	-.262***	-.332***	-.196***	-.316**	-.207*
3	-.059	-.020	-.168*	-.121	.004
Individual Resources					
Good skills	.064***	-.046	.139*	.262**	-.195
Good experiences	-.063	.088	-.175**	-.134	.058
Helpful network	-.047	-.043	-.035*	-.092**	-.005
Concessions					
Unsocial work hours	.260***	.311***	.157	.100	.412***
Unpleasant conditions	-.019	.081	-.208*	.027	-.085
Low income	-.100	-.045	-.138	-.163*	-.043
Personal circumstances / social environment					
debts	-.128	-.007	-.178	-.186	-.016
Alcohol / drugs	-.319***	-.223	-.524***	-.457***	-.187
Family conflict	.082	.010	.233	.118	-.009
Supportive network	.052*	.060**	.014	.017	.092
Know many with BIS	-.084**	.017	-.272***	-.138***	-.038
Know successful friends	.036	.056	-.050	.062	.022
Family is interested in me	.022	-.036	.096	.035	-.039
Many friends without a job	-.004	.0416	-.096	.059	-.087
Men (1), Women (0)	.067	.077	.074		
Region					
<i>Reference: west german, urban</i>					
West german, rural	-.096***	-.082***	-.120**	-.098***	-.103***
East german, urban	-.053***	-.023	-.073	-.001	-.132***
East german, rural	-.068***	-.044***	-.076*	.067**	-.259***
Age					
<i>Reference: 25 ... 34 y</i>					
35 ... 44 y	-.080*	-.083	-.057	-.112	-.074***
45 ... 57 y	-.239***	-.156	-.283***	-.281***	-.243***
Unemployment duration 1y +		-.311***	-.325*		
BIS	-.661***			-.664***	-.676***
Constant	-.377	-.986	-.111	-.263	-.271123
Cases	3322	1697	1622	1812	1505
Pseudo R2	0.1227	0.0639	0.1060	0.1346	0.1237

	Männer ALG II	Frauen ALG II
Formal qualification <i>Reference: medium</i>		
low	-.226	-.145
high	.304*	.311**
Basic skills		
Reading	.093	-.003
Mathematics	-.225***	-.105*
E-mail, Internet	.067***	.012
Soft skills		
Social competencies		
Personality	-.080	-.189***
Health <i>Reference: medium</i>		
good	.040	-.030
bad	-.305***	-.351***
Search behaviour <i>Reference: 2 ways of searching</i>		
0		
1		
3 and more		
Job talks <i>Reference: 1 ... 2</i>		
0	-.2243	-.125
3	-.187***	-.122
Individual Resources		
Good skills	.354*	-.127
Good experiences	-.320**	-.032
Helpful network		
Concessions		
Unsocial work hours	-.007	.364*
Unpleasant conditions	-.211	-.206
Low income	-.189**	-.064
Personal circumstances / social environment		
debts	-.192	-.181
Alcohol / drugs	-.751**	-.314
Family conflict	.189	.147
Supportive network		
Know many with BIS	-.305***	-.205
Know successful friends		
Family is interested in me		
Many friends without a job		
Men (1), Women (0)		
Region <i>Reference: west german, urban</i>		
West german, rural	-.087**	-.191***
East german, urban	.054	-.244***
East german, rural	.056	-.268***
Age <i>Reference: 25 ... 34 y</i>		
35 ... 44 y	-.025	-.094
45 ... 57 y	-.120	-.559***
Unemployment duration 1y +	-.304	-.364***
BIS		
Constant	.081**	.432**
Cases	887	735
Pseudo R2	0.1217	0.1128

Probit regression with robust standard errors, *, **, *** significance levels <10, <5, 1%

Source: Pilot study, own calculations