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**Working Paper**

## Design and stratification of PASS: A new panel study for research on long term unemployment

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Institute for Employment  
Research

The Research Institute of the  
Federal Employment Agency



# IAB-Discussion Paper

5/2009

Articles on scientific dialogue

## Design and stratification of PASS

A New Panel Study for Research on Long Term Unemployment

Mark Trappmann  
Bernhard Christoph  
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Mit der Reihe „IAB-Discussion Paper“ will das Forschungsinstitut der Bundesagentur für Arbeit den Dialog mit der externen Wissenschaft intensivieren. Durch die rasche Verbreitung von Forschungsergebnissen über das Internet soll noch vor Drucklegung Kritik angeregt und Qualität gesichert werden.

The “IAB-Discussion Paper” is published by the research institute of the German Federal Employment Agency in order to intensify the dialogue with the scientific community. The prompt publication of the latest research results via the internet intends to stimulate criticism and to ensure research quality at an early stage before printing.

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## **Abstract**

The paper introduces the general design features and particularities of a new large-scale panel study for research on recipients of benefits for the long-term unemployed (the so called Unemployment Benefit II) in Germany that combines a sample of 6000 recipient households with an equally large sample of the general population. Particular focus is on the sampling procedure for the general population, where a commercial database was used to draw a sample stratified by status.

## **Zusammenfassung**

Dieses Discussion Paper stellt Design und Besonderheiten der Panelstudie PASS vor. PASS ist im Rahmen der SGB-II-Forschung im IAB angesiedelt und kombiniert eine Zufallsstichprobe von 6.000 Haushalten, die Leistungen nach dem SGB II erhalten, mit einer ebenso großen Stichprobe der allgemeinen Bevölkerung. Dieses Design ermöglicht die Beantwortung einer Vielzahl von Fragestellungen der Arbeitsmarkt-, Armuts- und Sozialstaatsforschung. Im Ergebnisteil analysieren wir die Auswirkungen der Schichtung der Bevölkerungstichprobe nach dem Statusindex eines kommerziellen Anbieters.

**JEL classification:** C42, J64

**Keywords:** long-term unemployment, unemployment assistance, panel study, dual frame survey, stratified sampling

## 1 Introduction

In January 2005 a new assistance scheme for long-term unemployed persons called “Unemployment Benefit II” was introduced in Germany. The new benefit is means tested on the household-level and administered by the Federal Employment Agency in co-operation with local authorities. In August 2008, 6.9 million persons in 3.6 million households received this new benefit. The benefit aims at covering basic living expenses as well as at supporting re-integration into the labour market. The Institute for Employment Research (IAB) has the task to evaluate this new benefit scheme. While a major part of this task can be performed using administrative data, there is a demand for a new panel study to close the gaps left by these data. Specific gaps to be closed are (i) the household context, on which the administrative data provide information only during reciprocity, (ii) times outside the labour-force and in self-employment or as a federal employee and (iii) variables such as living conditions, activities, attitudes, and subjective evaluation of participation in labour market programmes that are not available in administrative data. This led to the development of the new panel study PASS (the full name is Panel Study “Labour Market and Social Security”, PASS is the German acronym). Due to its elaborate design and the possibility to link the survey to administrative data, PASS does not only enable analyses concerning the new Unemployment Benefit II, but also allows answering a broad range of questions concerning the labour market, unemployment and poverty. The scientific use file of the first wave was completed in July 2008 and is now distributed by the Research Data Centre of the Federal Employment Agency at the Institute for Employment Research. This article gives an overview of the new study.

In paragraph 2, we will introduce goals and main research questions. Paragraph 3 gives an introduction to the overall sampling design and the two subsamples drawn. In paragraph 4, we will introduce the measures employed for coping with our difficult survey population. Paragraph 5 outlines a refreshment concept. Paragraph 6 presents the most important modules of the survey questionnaire. Finally, in paragraph 7, a first glimpse on specific features of our control-subsample will be given.

## 2 Goals of the Study

The central aim of the Institute for Employment Research’s (IAB) panel study PASS is to examine the individual and social consequences of the implementation of the new Unemployment Benefit II in a household context (Achatz et al., 2007). For obtaining this goal, the most important research questions to be answered are:

- 1 Which pathways lead people into unemployment and in particular into long-term unemployment and dependency on Unemployment Benefit II?
- 2 How do the living conditions of persons and households change when they receive such benefits? How are health or social networks affected?
- 3 How do people cope with long-term unemployment and dependence on public transfers? Will attitudes of the respondents that are constitutive for their actions change over time?

- 4 What are the institutional arrangements for getting in touch with the agencies responsible for the provision of Unemployment Benefit II? And which institutional procedures are applied to accomplish a reintegration of recipients into the labour market?
- 5 Which factors facilitate overcoming unemployment and benefit recipiency?

A study-design that is suitable to answer these research questions faces several challenges:

- i) Answering the research questions requires longitudinal data.
- ii) The respondents' household context is of essential importance.
- iii) The main research interest is on recipients of Unemployment Benefit II, a population that is particularly difficult to handle in quantitative surveys. The main problems with this population are connected to difficulties with contacting respondents (low landline-phone coverage<sup>1</sup>), their low willingness to cooperate with the interviewer (e.g. due to negative attitudes of recipients towards public institutions) and potential language problems (above average percentage of migrants among recipients).
- iv) For several reasons, a comprehensive scientific survey on recipients of unemployment benefits requires that non-recipients be covered likewise. Among these non-recipients, persons that live in circumstances comparable to those of recipients are of particular interest for many research questions, as these individuals might serve as a control group or for analyses of the inflow into recipiency.

All these challenges require a study design that is tailored to the particularities of the research questions and the study population. We will present the details of such a design throughout the following paragraphs.

### 3 The Sampling-Design of PASS

The design of our study, which draws on the expertise by Schnell (2007), consists of two subsamples connected via the selection of identical primary sampling units (postcode regions) at the first sampling stage (figure 1). The postcodes were selected from a postcode register using pps-sampling.<sup>2</sup> In order to guarantee a good mapping of regional characteristics in the sample, the pps-sampling procedure was stratified. The stratification characteristics employed were political district and municipal size (classified according to the BIK10 classification (Behrens 2005)).

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<sup>1</sup> A recent mixed mode (CATI and CAPI) survey by the Institute for Employment Research (Messmann et al. 2008, Infas 2006) revealed that more than 20 percent of recipients have no landline-phones and that the subgroup lacking a phone is more deprived than the average recipient with respect to other aspects of their living standard.

<sup>2</sup> In our particular case, this requires an adaptation of the procedure, since the 'size' of a postcode region is usually different for both subsamples. Details are given in Rudolph and Trappmann 2007.

The first subsample, which we will call ‘register sample’ or ‘recipient sample’ throughout this article, was based on the Federal Employment Agency’s registers of Unemployment Benefit II recipients. From these registers, a clustered random sample of so-called ‘Bedarfsgemeinschaften’, consisting of those who received benefits at the reference date in July 2006, was drawn.<sup>3</sup> Even though these ‘Bedarfsgemeinschaften’ might not include all members of the household, the entire households were interviewed. This subsample can be used to draw inferences on the population of all households in which at least one ‘Bedarfsgemeinschaft’ existed in July 2006.

The second subsample, which we will call ‘microm sample’ or ‘population sample’, was drawn from a commercial database covering all addresses at which at least one private household resides.<sup>4</sup> It was clustered using the same spatial units (i.e. post-code regions) as in case of the first sample. The sample was disproportionately stratified by the attribute ‘status’.<sup>5</sup>

In order to draw the sample, first, all addresses chosen from the database were visited as part of an address-walk by interviewers of the field institute and all the names on the doorbell-panels were written down. After such units that were obviously in commercial use were excluded, in a second step one bell-sign from each doorbell panel was drawn. This was done centrally at the field institute and not by the persons doing the walk. In case that there was more than one name written on

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<sup>3</sup> A so-called ‘Bedarfsgemeinschaft’ (which is sometimes translated as ‘community of need’) includes all persons in a household receiving benefits jointly (i.e. as a joint payment). In the majority of cases, the ‘Bedarfsgemeinschaft’ and the household will be identical, which in particular applies in case of (married or unmarried) couples and parents with children below 25 years of age. However, under specific circumstances, the ‘Bedarfsgemeinschaft’ might not include all household members. Or, a household in which everybody receives benefit payments might be made up by more than one ‘Bedarfsgemeinschaft’. An example for the former would be a grown-up child living with its parents and earning just enough to make its own living but having insufficient means to support his mother and father – in this case the ‘Bedarfsgemeinschaft’ will only include the parents. An example for the latter would be a three- (or more) generation-household. Since a ‘Bedarfsgemeinschaft’ may only consist of two generations, this type of household would be made up of two such ‘Bedarfsgemeinschaften’, one consisting of the grandparent(s) and one of the parent(s) and child/children.

<sup>4</sup> We used the database MOSAIC provided by the company ‘microm’. The coverage of this database is discussed in Rudolph and Trappmann 2007. Commercial databases have only rarely been used before as sampling frames for scientific surveys in Germany. For an example see Salentin 1994 or Andress et al. 1995. This is due to an insufficient person-level coverage – which was also the reason for sampling house addresses for our project.

<sup>5</sup> The status indicator used was the variable “MOSAIC Status” included in the database. It comes as a nine-stage ordinal scale, which was created by aggregating the occurrence of certain status-relevant attributes for small spatial units. Examples for variables that were used in this process were the frequency of high-status professions, of self-employment, of academic titles or information on automobile-possession. In addition, some characteristics were added that were available for higher-level spatial units only, like unemployment rates or purchasing-power (compare Kueppers 2005).

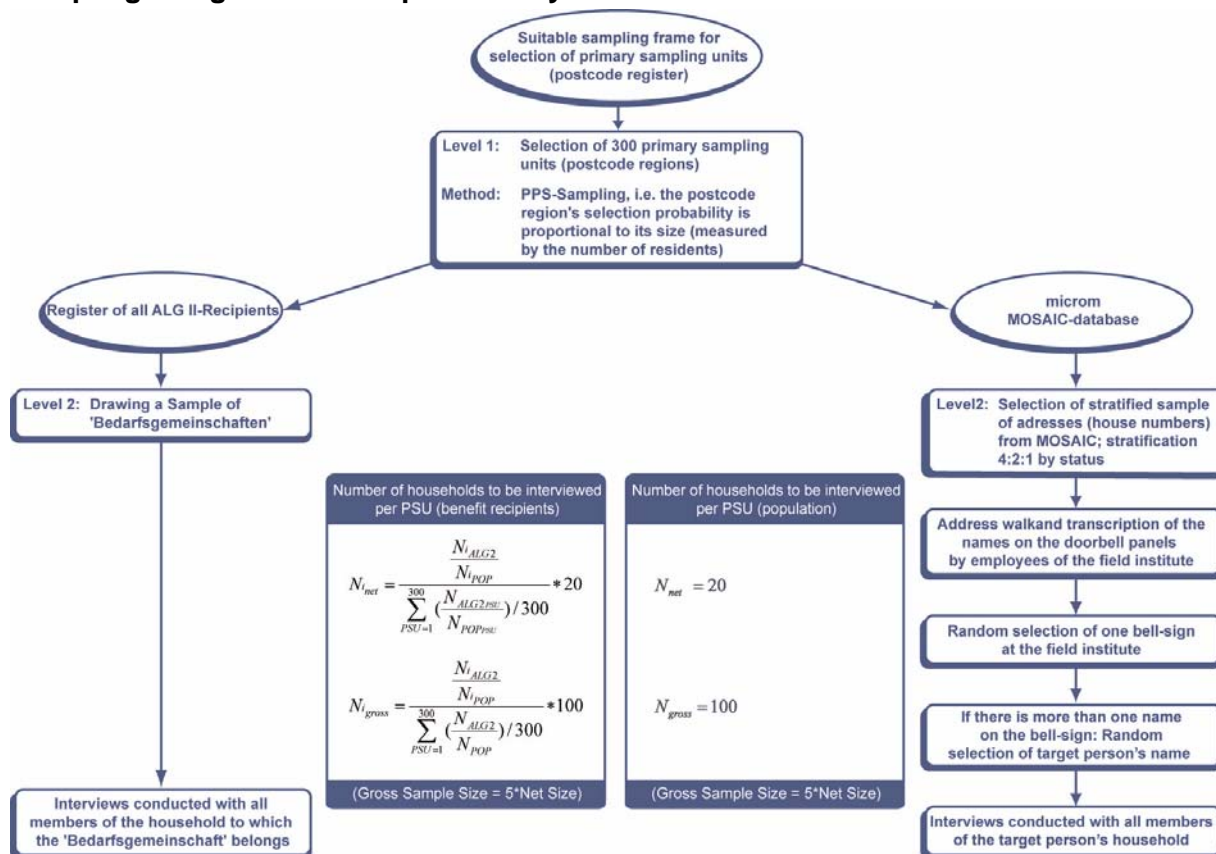


the bell-sign, a further step was taken to select a target person, whose household should be interviewed.<sup>6</sup>

The second subsample can be used to draw inferences about all households in the Federal Republic of Germany. The disproportional stratification of this subsample was chosen in order to allow a more efficient treatment of many research questions related to recipients of Unemployment Benefit II, since it increases the number of cases available in various relevant subpopulations (such as persons with a high risk of becoming recipients or low income households).

In addition, it is possible to combine both subsamples and to draw inferences on all households in Germany from the combined sample. Details on this can be found in Rudolph and Trappmann 2007. In wave 1, the first subsample had a size of 6,804 households, the second of 5,990 households.

**Figure 1**  
**Sampling design of the IAB-panel study PASS.**



<sup>6</sup> It can be assumed that in many cases the different names on the bell-sign refer to a common household. If this should be the case, taking the third step would be unnecessary. The advantage of this procedure is, however, that it always generates a specific target-household, even for flats at which more than one household resides. Thus, the contact phase of the interview is significantly shortened because the interviewer will not have to ask the contact persons questions about other households potentially living at this address.

## 4 Measures for Improving Response Rates

The panel study is administered to a particularly difficult survey population that is usually underrepresented in surveys. A substantial part of the sample consists of benefit recipients and, in addition, there also is a disproportionately high percentage of respondents that have a rather poor level of formal education and a comparably low social status.

Problems faced when trying to interview these groups are for example their higher tendency to relocate, which makes localising them rather difficult (Weiss and Bailar 2002) and their generally higher tendency to refuse to participate in empirical surveys (Goyder 1987).<sup>7</sup> This makes it necessary to undertake special efforts in order to avoid high and possibly selective nonresponse. This applies even more so, since the interviews conducted for our study might be mistaken for one of the inspection calls used by the employment agency to disclose cases of wrongfully obtained benefit payments. Thus, recipients might (mistakenly) assume negative consequences to result from their participation in the survey (Schnell 2007).

Encouraged by an expertise written by Schnell (2007) and experiences made with a recent cross-sectional survey of benefit recipients (Meßmann et al. 2008, Infas 2006), we decided to take several measures in order to address these problems.

1. **Mixed Mode:** in order to respond to the difficulties in contacting target persons by phone caused by low landline telephone coverage<sup>8</sup>, regular changes of mobile phone numbers and frequent change of address, a mixed interview mode was employed. Persons that could not be contacted by phone were visited by an interviewer at their home, where the survey was conducted. In many U.S.-studies on benefit recipients, this measure has shown to be very effective in improving response rates (Cantor und Cunningham 2002). And also in our own cross-sectional survey mentioned above, this measure was effective in increasing response rates of difficult respondent groups. Even though it might have been equally or even more effective, conducting the entire survey in CAPI- or PAPI-mode would not have been possible due to financial reasons.

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<sup>7</sup> In Germany, respondent behaviour is often observed to be in accordance with the exchange hypothesis (Dillman 1978, based on Blau 1964) which states that people with lower education are expected to appreciate less the utility of surveys, place less significance on them and therefore are less likely to participate (compare the overview by Schnell 1997: 198 ff.). A comparable line of argument can also be found in Groves and Couper 2002: 38.

<sup>8</sup> In the IAB's cross-sectional survey of Unemployment Benefit II recipients mentioned above (Meßmann et al. 2008, Infas 2006), which was also conducted as a mixed-mode survey, 20 percent of respondents stated that they did not possess a landline phone. However, since the unavailability of a landline phone in itself already constitutes an obstacle for contacting a potential respondent, this value should be considered a very conservative estimate of non-coverage in this particular population.

2. Incentives: For each responding household, 10 Euro are available for buying incentives in every wave. During the first wave, a large part of this budget was used to finance an incentive to be sent along with the announcement letter. In addition, each respondent who agreed to be re-contacted for wave 2 received a personalised lottery ticket in between waves.
3. Refusal-Avoidance-Training: In order to reduce refusals, the IAB required the field institute to employ a special training course for their interviewers. The programme by Schnell (Schnell and Dietz 2006), which is based on Groves and McGonagle (2001), teaches interviewers how to deal with typical arguments of designated respondents who are reluctant to take part in the study. It was adapted to the specific requirements of the study<sup>9</sup>.
4. Questionnaire-Translations: It is very likely that our survey population includes a disproportionately high number of migrants. Since their German language proficiency, at least in some cases, could be rather low, we translated our survey-instrument into Turkish, Russian and English. In the telephone-field, these instruments were administered by interviewers that are native speakers of the respective language. It would have been too expensive, however, to let all personal interviews be administered by native speakers. Therefore, the strategy employed in personal interviews was to transfer respondents to the telephone field whenever possible. Where this could not be done, the CAPI-interviewers used a written foreign language version of the questionnaire as translation-aid.

These measures taken to improve response rates were supported by an exceptionally good database for conducting nonresponse-analyses. One of the reasons for this rather favourable situation is that we used the database MOSAIC for drawing our population sample. In addition to the address-data used for sampling, MOSAIC includes a couple of other variables that are suited for predicting nonresponse. These variables were merged to both subsamples of our survey. Among these variables are attributes that can be used to predict refusals – such as e.g. social status or an indicator for concerns about privacy – as well as information that can be used to predict potential loss of contact with respondents, as e.g. the rate of households moving away from the respective region over the year. All this information is available for relatively small spatial units.

The register of unemployment recipients used for drawing the first subsample provides an even richer database. It contains information on the individual level (e.g.

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<sup>9</sup> A quasi-experiment was conducted in the CATI field, where the telephone interviewers at one location were immediately trained with this programme, while those at the other location received this training six weeks after the survey started. Preliminary analyses show an effect of the training of about 4 percentage points on telephone response rates (Schnell and Trappmann 2007).

education, age, employment status) that cannot only be used to correct initial non-response, but also to correct for panel attrition.

## 5 Sketching the Refreshment Concept

When creating a refreshment concept for a panel study, it is essential to distinguish between new entries to and refreshments of the survey population. Including new population entries is essential in order to make valid inferences for the cross-sections in each wave. In contrast to that, drawing refreshments is necessary in order to adjust for the reduction in sample size caused by panel mortality. Thus, it is also a measure to maintain the sample's statistical power, i.e. the probability that relationships present in the population can be revealed using the sample.

### Modelling New Population Entries

It seems reasonable to discuss the modelling of new entries to the population separately for both subsamples of the study.

In the register sample of wave 1, the population consists of all households in Germany in which at least one 'Bedarfsgemeinschaft', receiving benefits at the reference date for sampling in wave 1, resides. If no samples of new entries were drawn, all inference based on this study would relate to this cohort only.

However, the study would be more useful if it was possible to draw inference to the cross-sectional recipient population in every single wave. To enable this, every year a sample of new entries to this population is drawn from the Federal Employment Agency's registers of recipients. It contains only households ('Bedarfsgemeinschaften', to be precise) that newly claimed benefits since the original sample (or, in later waves: the last refreshment sample) was drawn.

This concept ensures maximum practicability for PASS users. When working with the wave 2 data of PASS, the following options exist:

1. Working exclusively with the register sample of wave 1, users can draw inference to all benefit recipients in July 2006.
2. Working exclusively with the sample of new entries, inference can be drawn to the cohort of new entries between July 2006 and July 2007.
3. Combining both samples, inference can be drawn to all households who either received benefits in July 2006 or in July 2007 and, by only using cases from the first wave sample that still receive benefits in July 2007, inference can be drawn to the cross sectional recipient population at this date.

In contrast to that, the microm sample constitutes a standard sample of the German resident population, notwithstanding the disproportionate stratification of the sample. Thus, it is not necessary to draw an extra sample to account for new population entries at the household level, since the households of the general population regen-

erate by themselves.<sup>10</sup> Persons who die in the course of the panel will be replaced by persons growing old enough to be interviewed.

Further complexity is added to the concept by the fact that households are dynamic entities. Households will split or will gain new members, not only by birth but also by new persons moving into the household or old members moving away, and creating new households. There are different ways of defining longitudinal populations, but in order to guarantee cross-sectional representativeness, the minimum requirement is that all initial sample-members and their offspring be followed to their new households. In addition, we follow up and survey all people who ever moved into an existing PASS household, also in the case of subsequently leaving that household (infinite degree contagion model).

However, a specific problem regarding the modelling of new population entries caused by international migration remains. This is a tricky task because a refreshment-mechanism, such as the one described above, will only account for a selective part of new entries caused by migration. While it will take account of those migrants that enter existing households – e.g. by marrying a household member – migrants who do not enter existing households will not be considered. However, correctly modelling all new population entries generated by migration is not a simple task, since, in Germany, no single register exists from which a potential refreshment sample could be drawn (Rendtel et al. 1997). On the other hand, using a screening procedure would be far too expensive, as the size of the original sample necessary to identify a sufficient amount of persons from such a small population (i.e. recent migrants) would have to be quite large. The German Socio Economic Panel (GSOEP), for example, did not draw a refreshment sample for this population until 1994, after 10 years of running the panel (Pannenberg et al. 2005). Moreover, due to the difficulties involved in drawing such a sample, the one drawn by the GSOEP did, strictly speaking, not meet all the requirements usually considered necessary to be met by a probability sample.<sup>11</sup>

As the yearly proportion of new entries to the population through migration into new households is well below one percent at date, there will be no sample for new entries within the first six years of the panel.

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<sup>10</sup> This is a fundamental difference to specific populations like benefit-recipients, to which exactly the opposite applies: New benefit recipients will not exclusively come from current recipient households.

<sup>11</sup> For one, in its migrant sample, the GSOEP used persons who had declared their willingness to participate in further studies during prior screenings conducted by the GSOEP's field institute. The chances are that the population generated by this procedure is a selective one. In addition, since this sample still included insufficient cases, further respondents were recruited via snowball sampling, a method which does not allow for a proper calculation of inclusion probabilities (Rendtel et al. 1997; Burkhauser et al. 1997).

## **Refreshments of the Survey Population**

The sole reason for drawing a refreshment sample is to compensate for reductions in sample size caused by panel mortality. In contrast to that, a correction for possible selectivity of the panel-attrition process will be done by applying propensity weighting.<sup>12</sup> Since significant reductions in sample size might only occur after some while, it does not seem necessary to implement refreshments early in the panel. In the long run, both samples can be refreshed using the same sampling scheme(s) as in the first wave and integrating weights by convex weighting (Rendtel 1999; Spieß and Rendtel 2000).

## **6 Modules of PASS and Linkage with Register Data**

In each household, one household questionnaire and one individual questionnaire for each person aged 15 or older, is administered. Senior respondents above the age of 65 are administered an abbreviated version of the questionnaire.

The household questionnaire contains modules on household composition, dwelling, deprivation, childcare, household income, and episodes of Unemployment Benefit II reciprocity since the introduction of this benefit scheme in January 2005, including episodes of (potential) sanctions.

The person questionnaire includes modules on education, employment, personal income, attitudes, home care, health, social networks, and job search. Moreover, it covers participation in programmes for Unemployment Benefit II recipients since 2005 and recipients' interaction with the agencies responsible for administering the benefits (in most cases called 'ARGE' or 'Jobcenter'). Information on the participants' employment history is collected in the second wave of the panel.

In the survey, we also ask for permission to link the survey data individually to register-datasets on the employment (and unemployment) history of the respondents. This increases the potential of PASS for labour market research and methodological research: Survey responses can be validated and researchers can use the higher precision of the register data (e.g. on income) together with additional variables (e.g. about search intensity, attitudes, reservation wages) from the survey.

## **7 Effects of the Sampling Procedure**

In this last section, we will analyse how the disproportional stratification by the micro status index has worked out. The aim of the stratification was the inclusion of a larger number of people with a high risk of becoming dependent on unemployment

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<sup>12</sup> Propensity weighting is a procedure in which, in a first step, participation in the following wave is predicted by one or more multivariate models. In a second step, longitudinal weights are calculated as the reciprocal of the estimated re-participation probabilities. Propensity weighting is a procedure that requires drop out processes to follow a missing at random (MAR)-mechanism, which means that drop outs are random, conditional on covariates included in the statistical model.

benefits. While we can give no direct assessment of this risk using data from the first wave of the study only, we shall assume that the risk is highly correlated with variables like education, employment status, income, wealth, or job stability.

Table 1 (for households) and table 2 (for persons) show proportions (and in two cases means) for selected risk factors by microm-status (see columns 2, 4 and 6). While column 8 gives the expected proportion in an unstratified sample<sup>13</sup>, column 9 gives the proportion in PASS. Column 10 indicates the 'gain', i.e. the additional percentage of persons with the respective risk factor in the study compared to an unstratified sample. The results show that, while differences between the three status groups in many instances are quite pronounced, the 'gain' is typically between three and ten percent. The highest gain, however, is made for Unemployment Benefit II reciprocity since 2005. With stratification, the proportion is 16.4 percent higher than it would be in the reference case of an unstratified sample.

**Table 1**  
**Results of the Sampling Procedure, household level**

Variable	Proportion in class 1 (low)	n1	proportion in class 2 (medium)	n2	proportion in class 3 (high)	n3	Exp. prop (unstratified)	Prop. in PASS	gain (%)
No owned accommodat.	0.584	2932	0.498	1863	0.481	1195	0.521	0.537	3.02
Does not own a car	0.233	2931	0.154	1861	0.137	1194	0.175	0.189	8.41
Deprivation: lacks 6+ items	0.237	2932	0.163	1863	0.100	1195	0.166	0.187	12.01
Ever Unempl. Benefit 2	0.171	2927	0.099	1859	0.052	1190	0.107	0.125	16.37
< 10.000€ in savings	0.750	2570	0.663	1615	0.527	987	0.647	0.680	5.21
Single par. HH	0.086	2881	0.081	1831	0.054	1178	0.074	0.078	5.90
Equivalised inc. (mean)	1201	2821	1478	1793	1802	1139	1494	1407	5.84

<sup>13</sup> In the case of households, this is equal to the (unweighted) mean of the proportions in the three classes (as the three classes are population terciles). In the case of persons, the expected proportion in an unstratified sample is the mean of the three classes weighted by the average number of respondents per household in these classes.

**Table 2**  
**Results of the Sampling Procedure, individual level**

	proportion in class 1 (low)	n1	proportion in class 2 (med.)	n2	proportion in class 3 (high)	n3	Exp. prop (unstratified)	Prop. in PASS	gain (%)
Low formal education (HS or lower)	0.374	3705	0.344	2451	0.213	1420	0.311	0.334	7.37
No vocational/tertiary degree	0.219	3708	0.186	2447	0.134	1417	0.180	0.192	6.86
No regular full- or part-time job	0.420	3253	0.360	2122	0.315	1225	0.365	0.381	4.37
Fixed-term employment	0.108	1743	0.084	1235	0.060	702	0.084	0.091	7.89
Bad health (self-rated, low. cat. of 5)	0.036	3906	0.034	2596	0.021	1500	0.030	0.032	7.11
Not born in Germany	0.141	3912	0.113	2597	0.083	1502	0.113	0.121	7.52
Parent or grandparent not born in Germ.	0.218	3873	0.195	2560	0.180	1486	0.198	0.204	2.86
Father has no secondary education	0.055	3333	0.042	2272	0.035	1353	0.044	0.047	6.13
Mother has no secondary education	0.072	3471	0.056	2331	0.043	1363	0.057	0.061	7.27
No close friends	0.046	3906	0.036	2593	0.024	1504	0.035	0.038	8.97
<b>Gross job income (mean)</b>	<b>2271</b>	<b>1993</b>	<b>2568</b>	<b>1454</b>	<b>3343</b>	<b>885</b>	<b>2722</b>	<b>2590</b>	<b>4.86</b>

For wave 2, only preliminary data are currently available. They indicate that, while the small ‘gains’ in households and persons with specific risk factors translate to a much bigger gain in transitions into reciprocity, the absolute numbers of observed transitions are still very low and many more waves are needed until entry processes can be evaluated on the basis of the population sample. Of those persons<sup>14</sup> in the microm sample who gave a person interview in wave 1 and wave 2 and who reported not to have received Unemployment Benefit II at the time of sampling for wave 1, only 109 report reciprocity in wave 2. The rate of transition into reciprocity is 3.89 percent in the low status class, 1.59 percent in the medium status class, and 0.77 percent in the high status class. Calculated as in table 2, the observed proportion of transitions in the sample is 2.49 percent, while in an unstratified sample the proportion should have been only 2.08 percent. The gain is 19.4% extra transitions.<sup>15</sup>

<sup>14</sup> The person level is the only adequate level here because, across time, neither households nor „Bedarfsgemeinschaften“ need to be stable units.

<sup>15</sup> While all the gains mentioned here refer to gains in absolute numbers, there are also costs associated with the stratification: It increases the variance of the weights and thus decreases the effective sample size for estimation of statistics from the weighted data of the population sample. Using the formula by Kish (1992), the effective sample size is decreased by about 14% by the additional variance of the weights.



## 8 Conclusion

The IAB panel study PASS is an important new database for research on unemployment in general and recipients of Unemployment Benefit II in particular. It combines state-of-the-art methods with some innovative features such as the use of a commercial database for stratifying the general-population subsample. In particular, the combination of two different sampling frames which combines a general-population sample with a second sample based on the Federal Employment Agency's registers, presents a survey design that allows researchers to address the various questions outlined in the beginning.

With this paper, we discussed some of the methodological particularities of this study and gave a brief overview of the general topics covered by the study.

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