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European Data Watch

This section offers descriptions as well as discussions of data sources that are of interest to social scientists engaged in empirical research or teaching courses that include empirical investigations performed by students. The purpose is to describe the information in the data source, to give examples of questions tackled with the data and to tell how to access the data for research and teaching. We focus on data from German speaking countries that allow international comparative research. While most of the data are at the micro level (individuals, households, or firms), more aggregate data and meta data (for regions, industries, or nations) are included as well. Suggestions for data sources to be described in future columns (or comments on past columns) should be send to: Joachim Wagner, Leuphana University of Lueneburg, Institute of Economics, Campus 4.210, 21332 Lueneburg, Germany, or e-mailed to ⟨wagner@leuphana.de⟩. Past "European Data Watch" articles can be downloaded free of charge from the homepage of the German Council for Social and Economic Data (RatSWD) at: http://www. ratswd.de.

WeLL – Unique Linked Employer-Employee Data on Further Training in Germany

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1. Introduction

A large body of empirical evidence suggests that the further training of employees exhibits several positive impacts. On the one hand, it seems to improve firm performance significantly, for instance productivity and sales (see e.g. Bartel, 2000, Dearden et al., 2006), as well as contributing to the successful implementation of new technologies (cf. Bresnahan, 2002). The introduction

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of technological change might also be one reason why the share of establishments investing in further training increased in the last decade in Germany (Görlitz, 2009). On the other hand, trained employees seem to benefit from an enhanced ability to cope with the challenges of a frequently changing work environment. In Germany, worker training is generally a joint investment by employers and employees (Pischke, 2001).

Within the project "Further Training as a Part of Lifelong Learning" (*Berufliche Weiterbildung als Bestandteil Lebenslangen Lernens*, or "WeLL" for short) a unique linked employer-employee dataset (LEED) with a particular focus on further training is established for analyzing the determinants and consequences of further training in Germany.[1] The project is conducted by the Rheinisch-Westfälisches Institut für Wirtschaftsforschung e.V. (RWI), the Institute for Employment Research (IAB), the Institute for Applied Social Sciences (infas) and the German Institute for Adult Education (DIE). Financial support is provided by the Leibniz Association (WGL) under the program "Joint Initiative for Research and Innovation" (*Pakt für Forschung und Innovation)*. The WeLL data consist of survey data on employers that can be linked to survey information about their employees. The employee survey is designed as a longitudinal dataset with three annually repeated waves. Furthermore, there is the possibility to supplement the survey data with information from administrative sources. In this paper we provide a detailed description of the design of the LEED and possibilities for researchers to access the data.

The sampling frame of the data followed two steps: in a first step, a stratified sample of establishments was drawn from the IAB Establishment Panel, with establishment size and industry sector constituting the most important strata. Between May and August 2007 face-to-face interviews were conducted with representatives of the chosen establishments (WeLL Employer Survey). In a second step, randomly selected individuals employed in these establishments were surveyed. The first wave of this WeLL Employee Survey was conducted by telephone interviews from October 2007 to January 2008. The sample design means that the WeLL data consist of information on a large number of employees (6,404) which were drawn from a rather small number of establishments (149). Hence, the sample is not representative of the population of German employers or employees, but tailored towards analyzing intra-firm processes with respect to further training. In the second wave we were able to re-interview 73% of the participants from the first wave and introduced a refreshment sample comprising 636 recently hired employees.

The remainder of this paper is organized as follows: the next section describes the WeLL Employer Survey, in particular the sample design, the survey instrument and the data. Subsequently, the WeLL Employee Survey is pre-

[1] For a more detailed description of the project see Bender et al. (2008a).

sented in the third section. Finally, we provide information on how to link the survey data with other data sources and on data access.

2. WeLL Employer Survey

The establishments considered for participation in the WeLL Employer Survey were selected according to the following rules: firstly, the 2005 wave of the IAB Establishment Panel[2] was used to draw a sample of establishments that promoted employee training activities in the first half of 2005. These establishments were classified by size (100 – 199, 200 – 499 and 500 – 1999 employees), industry sector (manufacturing and service sector), region (West Germany and East Germany)[3] and overall expenditure in real capital investments[4] (low and high). Secondly, establishments that fulfill the size, industry and regional criteria but did not invest in training in the first half of 2005 were also asked to participate in the survey. Since there were only 32 such firms, all of them were selected.

The content of the WeLL Employer Survey covers, amongst other things, information on the incidence and magnitude of employers' training investments.[5] Training investments are defined as financial contributions to worker training either by bearing direct training costs or by releasing employees from work for participation in a variety of different formal and informal types of training activities. The survey includes information on costs and benefits, organization and participation in training. Additionally, information is available on the implementation of new technologies, skill shortages, staffing and future expectations.

Face-to-face interviews with people in charge of recruitment and training decisions (e.g. human resources managers) were conducted within the survey period from May to August 2007 on the basis of a standardized questionnaire. Of a total of 167 establishments that were asked to participate in the survey (gross sample), 98 interviews could be conducted (net sample). Training activ-

[2] The IAB Establishment Panel is an annual representative survey on various topics such as the determinants of labour demand. It has been conducted by the IAB since 1993 in West Germany and since 1996 in East Germany. A description of the data is provided by Kölling (2000) and Fisher et al. (2009).

[3] Only establishments from the West German Federal States Bavaria, Schleswig-Holstein and North Rhine-Westphalia and from the East German Federal States of Mecklenburg-Western Pomerania and Saxony are selected.

[4] In the IAB Establishment Panel, investments refer to the sum of total investments in information technology, real estate, machinery or transport equipment during the year preceding the interview.

[5] A detailed description of the content of the questionnaires for both the employer and the employee surveys is provided in Bender et al. (2008b).

ities have been covered in the data since January 2006. All of the establishments in the net sample reported having invested in worker training between January 2006 and May to August 2007 (depending on the date of the interview), although some of them abstained from doing so in 2005 (according to their responses in the 2005 wave of the IAB Establishment Panel).

3. WeLL Employee Survey

The WeLL Employee Survey is a three-wave panel which is designed to collect detailed information on individuals' further training activities. In addition we obtain information on the employment history, socio-economic and household characteristics, job satisfaction and expectations. The waves are conducted annually starting in 2007. The short time period of one year between the survey waves enables us to obtain a complete training biography with detailed information e.g. on costs, duration or topic, without running the risk of recall errors. All of the individuals who participated in the first wave and agreed to participate in the next wave will be re-interviewed (with the exception of retired persons), irrespective of their employment status. This means that individuals who become unemployed between the interviews or change their employer will also be contacted again. Since it is possible to match the survey data with administrative data, some establishment characteristics will be available for job movers as long as they hold a job subject to social security contributions.

One very important feature of the employee survey is the definition of training measures, which is identical to the definition in the employer survey. Thus, the data captures participation in various types of formal and informal learning activities since January 2006. Specifically, detailed information on beginning and end dates, content, duration, costs, quality and certification of further training is available for up to three formal courses. The WeLL Employee Survey also contains information on the employment history since January 2006 including job characteristics and mobility as well as information on individual and household-related characteristics.

The target population of the first wave of the WeLL Employee Survey in 2007 was defined as the population of all employees in the gross sample (i.e. in one of the 167 establishments) on the reference date of December 31st, 2006. The sample was restricted to employees covered by social security excluding workers in apprenticeship or (partial) retirement. If these restrictions reduced the size of the establishment to fewer than 50 employees, these employees were excluded from the sample as well. This leaves us with approximately 56,000 employees from 149 establishments of whom 16,552 workers were asked to participate in the survey. In the second and third waves we adjust for panel mortality by interviewing a sample of new employees, i.e. work-

ers who joined one of the 167 establishments in the course of the years 2007 and 2008, respectively.[6]

In the first wave 6,404 interviews were conducted between October 2007 and January 2008 via Computer Assisted Telephone Interviews (CATI), which is a response rate of 38.9%. 5,814 respondents agreed to participate in the following waves. In the second wave 4,259 individuals of this group were interviewed again (73.3%). The interviews for the second wave were conducted in autumn 2008. The sample of new employees comprised 1,829 persons, 636 of whom participated in the second survey wave (34.8%). Of the new employees 584 respondents agreed to participate in the third wave. Together this yields 6,317 persons for the third wave, which is to be conducted in autumn 2009.

4. Linking WeLL Employer Data with Employee Data and other Survey or Administrative Data

According to German data protection legislation, the survey data on employers and employees can only be linked if the participants agree to merge their data with other data sources. This is the case for 5,819 employees from the first wave, for 548 new employees from the second wave and for 80 establishments. Their data can be augmented with information from other data sources. At individual level the employment history of employees since 1975 including labor market participation, wages and job mobility can be merged with the survey data for employees. These data are taken from the Employee and Benefit-Recipient History of the IAB (*Beschäftigten-Leistungsempfänger-Historik,* BLH). The BLH contains employment histories on a day-to-day basis for all employees covered by the social security system since 1975 for West and since 1992 for East Germany. Information on workers in jobs with reduced social security contributions (so-called "Minijobs") has been available since 1999. Further information on periods of benefit receipt under the jurisdiction of the Federal Employment Agency (BA) (i.e. unemployment benefits, unemployment assistance and maintenance allowance) are also included.[7]

Additional information at establishment level can be merged from the Establishment History Panel (*Betriebs-Historik-Panel,* BHP). The BHP comprises cross-sectional establishment data starting in 1975 for West and 1992 for East Germany. Each cross-section contains all establishments in Germany

[6] This group includes former apprentices of the firm who were taken on as regular employees in the same firm in 2007 and 2008.

[7] Unfortunately, no description of the BLH data is available. Detailed information can be found in the FDZ Datenreport "The Regional File of the IAB Employment Sample 1975 – 2004" (Drews 2008). The IAB Employment Sample is a 2% random sample drawn from the BLH with almost the same characteristics and data structure.

which are included in the Employee and Benefit-Recipient History (BLH) as of June 30th. These are establishments with at least one employee subject to social security contributions on the reference date. Since 1999, establishments with no employees of this type but with at least one employee in a "Minijob" are included as well. The BHP also contains information on the industry sector, the location of the establishment, the number of employees (in total and stratified by gender, age, occupational status, qualification and nationality; for more details see Spengler 2008). Furthermore, the WeLL data can also be linked to survey data from the IAB Establishment Panel (Fischer et al. 2009). Detailed information on the IAB Establishment Panel (e.g. questionnaires, list of variables, sample frequencies) is available on the FDZ homepage (http://fdz.iab.de).

5. Data Access

A scientific use file of the first wave of the WeLL Employee Survey is available for non-commercial research in autumn 2009. The data include almost all of the variables from the questionnaire of the first wave of the employee survey, which is supplemented by some additional characteristics on the establishments. Data access is provided by the Research Data Centre (FDZ) of the German Federal Employment Agency (BA) at the Institute for Employment Research (IAB). The FDZ provides some material and information about the scientific use file for researchers, e.g. questionnaire, data description and frequency tables (Huber et al. 2009 and Knerr et al. 2009). Unfortunately, it is currently not possible to provide access to the WeLL Employer Survey for other researchers due to data protection concerns. Furthermore, it is not yet possible to merge administrative data or data from the IAB Establishment Panel with the survey data either. However, the FDZ is working towards on-site use with the possibility to link administrative and other survey data. Further information is available on the homepage of the FDZ (http://fdz.iab.de).

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