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The IAB Job Vacancy Survey

Establishment Survey On Job Vacancies and Recruitment Processes

Waves 2000 to 2013 and subsequent quarters from 2006

Andreas Moczall,
Anne Müller,
Martina Rebien,
Kurt Vogler-Ludwig

Bundesagentur für Arbeit

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Andreas Moczall, Anne Müller, Martina Rebien

(Institute for Employment Research (IAB))

Kurt Vogler-Ludwig

(Economix Research & Consulting)

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Zusammenfassung

Daten zum gesamtwirtschaftlichen Stellenangebot wurden in den letzten Jahren mit zunehmendem Interesse aufgenommen. Dies liegt nicht zuletzt daran, dass das gesamtwirtschaftliche Stellenangebot weder strukturell noch quantitativ durch die administrativen Daten abgedeckt werden kann. Mit Hilfe von Daten zu Zahl und Struktur offener Stellen aus der repräsentativen IAB-Stellenerhebung kann diese Lücke für Deutschland geschlossen werden. Daneben werden mit dieser Betriebsbefragung auch Informationen erhoben, die entscheidend zum Verständnis von Stellenbesetzungsprozessen sowie abgebrochenen Suchvorgängen beitragen. Ausgleichsprozesse am Arbeitsmarkt, insbesondere die betrieblichen Such- und Entscheidungsprozesse, können damit eingehend untersucht werden. Die Angaben aus der Erhebung tragen zu einer Erweiterung der makroökonomischen Arbeitsmarktforschung bei. Seit dem Jahr 2011 werden die einzelnen Befragungswellen externen Wissenschaftlern Schritt für Schritt über das Forschungsdatenzentrum der BA im IAB zugänglich gemacht.

Abstract

In recent years, there has been an increased interest in data on job vacancies that are representative of the entire economy. Data from administrative sources cannot meet this demand adequately in structure or coverage. In Germany, this gap is filled by the German Job Vacancy Survey of the IAB, a representative survey of establishments providing valid data on the number and the structure of job vacancies in the entire German economy. It also provides data crucial to the understanding of recruitment processes and the reasons for the lapsing of vacancies. This enables a detailed examination of labour market processes, in particular search and hiring decisions. Beginning in 2011, data from all waves have gradually been made available to external researchers through the Research Data Centre (FDZ) of the Federal Employment Agency at the Institute for Employment Research.

Keywords: **vacancies, recruitment processes**

1 Changes Compared to Earlier Versions

The values of variable f25z were replaced with corrected values in the fourth quarter of 2005 only to yield the same extrapolated values that were presented in press releases and policy reports. Previously, there was a deviation of approximately 1.5 percent.

In earlier dataset versions, the value labels of the German states in the waves 2000 to 2004 were wrong in that Saxony and Saxony-Anhalt were switched, as were Brandenburg and Mecklenburg-Western Pomerania. This error has been corrected.

The German-language codebooks for the waves 2000 to 2004 were corrected to properly reflect the variable names in the additional questionnaire.

2 Brief Description of the Dataset

2.1 Goals of the Survey

Official statistics in Germany—and in most other European countries—only provide the data on those job vacancies that are reported to public job placement services. These, however, do not represent the total of all vacancies, neither with regard to their scope nor to their structure (Yashiv 2000; Jackman/Layard/Pissarides 1989; Heckmann/Kettner/Rebien 2009). The reporting rate (the share of reported vacancies in the total amount of vacancies) fluctuates heavily over time, and there are significant differences among industries, regions, or occupations.

An extrapolation of the total of all vacancies on the basis of these reported vacancies under the assumption of fixed reporting rates can therefore not lead to reliable information on the entire unsatisfied labour demand. As early as the 1960s, this was discussed within scientific publicatoins; already then were representative employer surveys regarded as the only way to obtain information on the total number of job vacancies (NBER 1966, Nerb/Reyher/Spitznagel 1977).

The significance of the IAB Job Vacancy Survey lies in the acquisition of data on the labour demand and the development of staffing. For annual information on the course of recruitment processes, for example, with information on the search and recruitment channels including the share of job placements with Federal Employment Agency involvement, information on the recruitment durations and the reasons for recruitment difficulties, the IAB through the Job Vacancy Survey provides an excellent data source. It facilitates up-to-date analyses as well as the observation of changes over the course of time.

The regular survey of a representative selection of establishments and administrations[1] started in the fourth quarter of 1989 with a written questionnaire. Since then, it has been repeated annually as a cross-sectional survey. In 1992, the survey's reach was extended to include Eastern Germany, and in 2006, the written survey in the fourth quarter was supplemented by brief telephone interviews in the first, second, and third quarter of every following year.

The goal of the telephone interviews introduced in 2006 is the collection of intra-annual information on the availability of jobs, sorted by industry. In order to keep the amount of questions small and the survey costs low, only a few questions are asked about the total number of vacancies and the number of vacancies reported to the Federal Employment Agency.

The written survey by the IAB has four primary goals:

- identification of the number and structure of the overall economic availability of jobs while taking into consideration information on the economic situation and the development of the establishments that were interviewed;
- examination of how the company assesses and uses the current instruments of labour market policy;
- analysis of the course of recruitment processes based on detailed establishment information on the last case of successfully hiring a new employee; and
- analysis of the scope, causes and establishment impact of unsuccessful recruitment attempts which were eventually terminated.

2.2 Quantity Structure

Currently, the Research Data Centre offers the surveys from 2000 through 2013 including the respective subsequent quarters from 2006 on. Table 1 depicts the quantity structure of the dataset. As with the survey structure, the overall dataset can be divided into several parts. Between 2000 and 2013, the number of establishments participating in the written survey in the fourth quarter ranged from 7,500 to 15,000. The survey consists of a questionnaire which can be divided into four parts. The main questionnaire (1) serves to gather information on the structure and development of the establishment, the availability of

[1] Just as in the survey itself, the term “establishment” is not limited to private, trading, commercial or industrial businesses, but also includes social, public, and non-profit establishments, administrations, and associations.

jobs, and the employment of previously unemployed persons. This part was completed by all establishments. The topic of the special questionnaire (2) is information on various current developments which are relevant to labour market policy. However, this part is only completed by 3,300 to 6,000 establishments, i.e. not all of the respondents. The additional questionnaire details the last successful (3) and the last unsuccessful (4) recruitment of a new employee. It was completed by 3,600 to 9,800 establishments.

Since 2006, a sample has been drawn every year in the fourth quarter from the participants in the written survey. The establishments in that sample receive phone calls in the first, second, and third quarters of the subsequent year, being interviewed about job availability and employment development. Only a few questions are asked during these phone interviews, and they mainly stem from the main questionnaire. Since the first quarter of 2006, the number of participating establishments has been continually raised to approx. 9,000.

Table 1: Overview of the number of interviewed establishments

	Total	Main questionnaire	Special questionnaire	Additional questionnaire
Q IV 2000	7554	7554	4359	4646
Q IV 2001	7331	7331	3285	4503
Q IV 2002	5773	5773	3387	3656
Q IV 2003	7310	7310	4958	4401
Q IV 2004	11707	11707	5986	6622
Q IV 2005	11742	11742	3925	6519
Q I 2006	7030	--	--	--
Q II 2006	6988	--	--	--
Q III 2006	7005	--	--	--
Q IV 2006	13537	13537	5013	8002
Q I 2007	8007	--	--	--
Q II 2007	8006	--	--	--
Q III 2007	7995	--	--	--
Q IV 2007	14381	14381	5229	9777
Q I 2008	7999	--	--	--
Q II 2008	7998	--	--	--
Q III 2008	8001	--	--	--
Q IV 2008	13651	13651	4538	8270
Q I 2009	9884	--	--	--
Q II 2009	8000	--	--	--
Q III 2009	8000	--	--	--
Q IV 2009	15288	15288	5327	9462
Q I 2010	9000	--	--	--
Q II 2010	9001	--	--	--
Q III 2010	9004	--	--	--
Q IV 2010	15124	15124	4349	9704
Q I 2011	9000	--	--	--
Q II 2011	8994	--	--	--
Q III 2011	8999	--	--	--
Q IV 2011	15139	15139	4394	9793
Q I 2012	9001	--	--	--
Q II 2012	9001	--	--	--
Q III 2012	9000	--	--	--

Q IV 2012	13807	13807	4220	9013
Q I 2013	9001	--	--	--
Q II 2013	9002	--	--	--
Q III 2013	8999	--	--	--
Q IV 2014	14019	14019	4440	9338
Q I 2014	8998	--	--	--
Q II 2014	9001	--	--	--
Q III 2014	9000	--	--	--

3 Sample and Data Preparation

At the start of the fourth quarter, the establishments chosen by way of a random sample (see Chapter 3.1) receive a multiple-page questionnaire in the mail. The field phase lasts until the end of December. In the event that the selected establishments have not replied by the end of November, they receive a second letter and questionnaire asking them to complete the survey.

The formulation of the questions is based on a glossary containing definitions of the terms used, which has been developed over the course of a number of years. Extracts from this glossary are provided to the respondents in the form of an information sheet ("FAQ"). It explains, for example, who counts as an employee for the purposes of the survey or how questions about leased/temporary employees should be answered. To the extent that existing questions have been developed further or that new questions have been conceived, this was done in close coordination with the Economix Research & Consulting institute, which is in charge of conducting the survey. The actual questionnaire is six pages long and divided into four sections as follows:

a) Main questionnaire: number and structure of vacancies

b) Special questionnaire on current labour market policy topics

c) Last case of successfully hiring a new employee in the past twelve months

d) Last case of terminating the recruitment process in the past twelve months

The answers of the participating establishments are then extrapolated to apply to the economy as a whole (see Section 3.3).

Moreover, there has been an eight-page version of the six-page questionnaire since 2005, which includes questions on developments in the domain of the German Social Code II (SGB II). This questionnaire differs from the six-page version in the form of a special questionnaire part about One-Euro Jobs. Since these One-Euro Jobs are only used in a few economic

sectors, the eight-page questionnaire is only sent to the following economic sectors: L–O ("Public administration and defence, compulsory social security," "Education," "Health and social work," and "Other community, social and personal service activities" according to the Classification of Economic Activities 2003) or O–Q and S ("Public administration and defence, compulsory social security," "Education," "Human health and social work activities," "Other service activities" according to the Classification of Economic Activities 2008), respectively. The remaining sectors receive the six-page version of the questionnaire. The economic activities "Private households with employed persons" and "Extra-territorial organizations and bodies" are the exception; they are not included in the survey.
Since 2006, telephone interviews have been conducted additionally in the first, second and third quarter of the year following the written survey in the fourth quarter. The occasion for that was the European Commission's effort to introduce Europe-wide quarterly statistics of job vacancies.

Previously, a test survey was carried out in the second quarter of 2005 in order to check whether a telephone interview that builds on the written survey would be able to help collect the necessary reliable information on vacancies. Asking a subsample of the participants of the previous fourth quarter (approx. 8,000, increased to 9,000 in the meantime) for an update of their data on job vacancies (to be filled immediately or at a later date, reported vacancies) as well as employment has proved itself as a practical method. This provides an intra-annual panel which allows for linking the companies' comprehensive data from the fourth quarter to the data in the subsequent quarters. In order to keep respondents motivated to answer the questions, the telephone interview only focuses on a few central questions, so that its average duration is only about four minutes. Even so, it is sometimes necessary to expand the sample for the second and third quarters in order to reach the desired minimum case count. Therefore, the number of interviews may sometimes be higher for the second and third quarters than for the first. The interviews are conducted between the start of the second week of the first month and the end of the third week of the third month of the respective quarter.

3.1 Population and Sampling

The population used for the sampling originates from the currently available address stock of the Federal Employment Agency's (BA) Statistic on Employed Persons. Usually this address stock is about eight months old at the time of sampling. This includes all establishments with at least one employee subject to social insurance contributions. As the labour markets in Western and Eastern Germany differ significantly, random samples are taken separately for the two regions, stratified disproportionately, by 28 economic activities (German Classification of Economic Activities, Edition 2003) or, respectively, 23 economic activities (German Classification of Economic Activities, Edition 2008, in use since the fourth quarter of 2010) and seven establishment size classes (number of employees subject to social security contributions). The differences between the labour markets in Eastern and Western Germany manifest, among other ways, in the fact that the share of establishments with job vacancies is much higher in Western Germany. As a result of this, in relative terms, a larger sample is taken for Eastern Germany than for Western Germany.

For the waves 2000 to 2013, the number of gross samples ranged between 28,000 and 78,000 establishments. The differences are owed to the fact that the sample was repeatedly enlarged due to adjustments made to improve representativeness. The first increase by approx. 5,000 establishments in both Eastern and Western Germany was made in 2003. The sample was enlarged again by approx. 30,000 establishments in 2004. In order to receive a sufficient number of answers to the special questions added in 2005, which were asked exclusively in the public sector, the public-sector sample was enlarged once again by approx. 20,000 establishments.

After drawing the gross sample, the filter checks for establishments which explicitly refused participation in the last few surveys are carried out. Moreover, duplicate and incomplete addresses are removed from the sample. For branch offices of larger companies and public institutions, the number of interviewed establishments is reduced in order to cause less effort for the usually centralised human resources departments. The net sample comprises between approx. 200 (in the year 2000) and 4,000 (in 2012) fewer cases.

To get representative results later, the Economix Research & Consulting institute in Munich, which is in charge of the interviews, ensures that the cell frequency in the economic activity / size class matrix is sufficiently large. The response rates to be expected, the permissible sample error (five percent) and the maximum error tolerance for sampling rates (ten percent) are considered in this context.

For the fourth-quarter surveys, approx. 3.8 percent of German establishments with employees subject to social security contributions are addressed each time. The share of establishments contained in the gross sample fluctuates across the economic sectors. One reason for that is, among others the difference in past response rates. In order to generate a representative data source, this means that in the sectors with low response rates

(Commerce, transport and catering industry/communication, Banking and insurances) the sample must be larger.[2]

In contrast to that, the sectors chemicals, energy and mining as well as public services cover an above-average share of the basic population in terms of employees subject to social security contributions. This is due to the fact that there are relatively few but mostly large establishments in these sectors. Together with ensuring that the cell frequency is sufficiently large and the higher probability of being selected when in a higher size class[3], this results in the majority of these establishments being contacted by us. This, in turn, results in a high coverage of the population in this segment.

The final response after sending a reminder is 7,500 to 15,000 usable questionnaires in the fourth quarter. This corresponds to a response rate (the ratio of the number of usable questionnaires and the corrected net sample) between 26 percent in the year 2000 and approx. 18 percent in 2012. The survey institute checks whether the realised samples have sufficient cell frequencies in order to allow representative statements (see also Section 2.4.1: Characteristics of the Wave of 2005). This allows for representative specification of vacancies by 16 economic activities and two company size classes (< 10 and 10+) for Eastern and Western Germany. Moreover, it is also possible to specify vacancies representatively by seven company size classes for Eastern and Western Germany.

For the telephone interviews, the response rates were significantly higher. Of the establishments contacted by phone, an average 90 to 95 percent are usually willing to answer the interview questions. The interview timing is distributed in such a way that they are distributed as uniformly as possible over the quarter. The companies are called in the order of receipt of the written questionnaires. This is to ensure that the time interval since the last survey is not too short.

Even though the telephone survey was not planned as a panel survey, an implicit panel for the duration of one year results for that part of the sample which participated in the interviews in all four quarters. Just as in the written survey, sufficient cell frequencies for the evaluation matrix is also ensured for the phone interviews.

[2] Different response rates result from the small business structure as well as the predominance of affiliate systems, usually without individual HR departments.

[3] For the largest size class, it so happens that almost all establishments are contained in the sample.

3.2 Data quality assurance

The information supplied by the establishments is checked for extreme values by the survey institute. There is no automatic procedure involved. Based on the decision rules named below, checks are carried out as to whether the information provided about vacancies constitutes extreme values:

- Vacancies on the primary labour market > 250 vacancies
- Vacancy rate (vacancies on the primary labour market/employment) > 250 percent
- Share of an establishment in the (extrapolated) number of overall vacancies of the respective economic sector > 25 %

As soon as the specification regarding their vacancies provided by an establishment shows conspicuously high values, this establishment is contacted and a plausibility check of their information is carried out. Where direct contact is not possible, the stated values are reduced to 50 percent of the original value; however, it is always possible to fall back on the original values. Due to establishment feedback, there is usually only a small number of extreme values that requires correction.

3.3 Extrapolation

The extrapolation factors are identified in a multi-step iterative procedure developed by the survey institute. The method distinguishes between establishments with job vacancies and establishments without job vacancies. This iterative method for the calculation of the extrapolation factor adjusts to two target variables:

- The marginal totals (sums of rows/columns) of the matrix of the population of establishments, or alternatively the employees subject to social security contributions for 16 economic activities (up to 2009), or respectively 23 economic activities (since 2010) and six company size classes
- The vector of the officially reported vacancies for 16 economic activities (up to 2009), or respectively 23 economic activities (since 2010)

The extrapolation factors are defined such that they reproduce with sufficient exactness the vector of reported vacancies as well as the vectors of the marginal totals of the establishments/employees subject to social insurance contributions matrix for the respective population. Both target variables are extrapolated with the same factors and are therefore consistent. This ensures that the (aggregated) data of the matrix or vector can be related to each other in levels, thus complying with a key requirement for the quantification of the vacancies.

The calculated extrapolation factors allow for an extrapolation to the basic population of establishments with employees subject to social security contributions (gbet—establishment weight) as well as the population of employees subject to social security contributions in the establishments (gsvb—employee weight). Furthermore, a derived weight for successful recruitment of new employees (gneu) is calculated. The latter variable is a multiplicative weight comprised of the company weight and the number of new recruitments (variable f10).

The extrapolation procedure itself is subject to continuous development and plausibility checks by the survey institute in cooperation with the IAB. After 2000, it became evident that the number of vacancies registered with the Federal Employment Agency and the number of vacancies identified by means of the survey are drifting apart. One of the reasons was the expansion of the labour market policy programme One-Euro Jobs. As these jobs were not regarded as vacancies by the establishments but included in the BA's statistics of reported vacancies, corresponding correction factors had to be introduced in the extrapolation procedure (variable kfhs). They take into account the increase of subsidised jobs as well as the increase of permanent positions in the number of reported vacancies. As these programmes went out of fashion, the need for such intervention decreased after 2008.

3.4 Generated Variables and Dataset Changes

Apart from the extrapolation factors (see 2.3), the dataset also contains some variables generated later. All additional and estimated variables are listed at the end of the respective code plan, together with an explanation. The following are explanations of some important changes in the dataset and descriotions of the genereated variables.

3.4.1 Vacancies on the Primary Labour Market

From the start of the data collection up to and including the year 1999, the vacancies in the economy as a whole cannot be divided into primary and secondary labour markets. For the years 2000 up to and including Q III 2010, the vacancies on the primary labour market are calculated by subtracting the number of subsidised jobs in the FEA's statistics from the vacancies in the economy as a whole. This has no longer been possible since the 2010 survey because subsidised jobs are no longer specified in FEA data. Since Q IV 2010, only jobs on the primary labour market have been surveyed. Only a limited comparison is possible between vacancies up to Q III 2010 and information collected after Q IV 2010.

3.4.2 Things to Consider in Waves 2000 and 2001

In 2000 and 2001, two different questionnaires were still produced for the surveys in Eastern and Western Germany. Therefore, some variables are only available for Eastern Germany. This concerns questions 24 to 29 about structural adjustment measures (SAM) and job-creation measures (ABM). They were only asked in Eastern Germany. In addition, there were different answer options for the questions 13 (economic obstacles) and 20 (expected economic obstacles in the next 12 months). The respective variables are marked in the list of variables.

3.4.3 Things to Consider inWave 2005

In the fourth quarter of 2005, the survey faced the problem of a very low response rate. The unadjusted response rate was a mere 18 percent. There is a number of possible reasons: the sheer amount of different telephone surveys and solicitations at the time, may have made establishments “allergic” to any kind of disturbance; the increasing number of scientific surveys which, in the course of the Hartz evaluation, were often directed at human resources administrations; the explicit note on the title page of the cover letter that participation was voluntary, which may well have been an excuse not to participate for many; the ongoing debate about the Federal Employment Agency and the Hartz reforms (Vogler-Ludwig 2006).

Therefore it was necessary to do a supplementary telephone survey in the fourth quarter of 2005. However, this survey was merely limited to the most important variables (employee structure and vacancies) in order to be able to adequately adjust the extrapolation. This resulted in two kinds of weight for the IV.2005 dataset (reduced sample and complete sample). In the following, the subsequently generated variables are *always* to be extrapolated with the weight of the complete sample (see Table 2); all the other variables with the reduced weight.

Table 2: Variables of the complete sample 2005

Variable	Content
q45_f4	Total sum of employees
q45_f6	Employees subject to social security contributions (estimate)
q45_f19	Need for personnel (Yes/No)
q45_f20	Vacancies to be filled immediately
q45_f25	Vacancies to be filled immediately, reported to FEA
q45_a1	Occupation 1, vacancies to be filled immediately

q45_a2	Occupation 2, vacancies to be filled immediately
q45_a3	Occupation 3, vacancies to be filled immediately
q45_f40	Vacancies to be filled at a later date
q45_f45	Vacancies to be filled at a later date, reported

3.4.4 Things to Consider in Wave 2010

The Classification of Economic Activities 2008 was introduced in Q IV 2010. Comparing by economic activity with previous waves is therefore possible only to a limited extent. Moreover, from Q IV 2010 on, vacancies can only be specified, i.e. only on the primary labour market.

3.4.5 Changes in the Questions on Vacancies

As mentioned before, not all the information collected in the fourth quarter is updated in the subsequent quarters I, II and III. Question wording and content may change between the yearly questionnaires as well.[4] In particular, when inquiring about the number of vacancies, IV.2006 and IV.2007 exclude One-Euro-Jobs; IV.2008 and IV.2009 exclude One-Euro-Jobs and leased/temporary employees, while in IV.2010, only freelancers are excluded. Trainees are excluded until Q IV 2010.

Furthermore, up to and including III.2007, three time horizons were distinguished in the interim quarters: vacancies to be filled immediately, vacancies to be filled within the next three months, and vacancies to be filled at a later date. In the fourth quarter, on the other hand, the only distinction is made between vacancies to be filled immediately and at a later date. The vacancies to be filled at a later date as inquired in the interim quarters therefore result from those to be filled later than within the next three months and those to be filled, while not immediately, within the next three months. However, as the first question in all quarters is always about the vacancies to be filled immediately, it can be assumed that at least this subgroup is equally well-defined at all interview times.

Nevertheless, difficulties may arise as to the comparability of vacancies by occupation: They are inquired for vacancies to be filled immediately in the fourth quarter, but in the interim quarters of 2006 and 2007, they were inquired for the vacancies to be filled immediately and those to be filled within the next three months. The case is similar for vacancies that require a university degree. These, too, were inquired for all vacancies to be filled within three

[4] Changes in the way the questions are phrased or in content are marked in bold at the point in time when they first occurred in the list of variables (http://doku.iab.de/fdz/EGS/_Variablenliste_EGS.xlsx). Please refer to the codebooks to adequately cover all changes during analysis and interpretion of IAB Job Vacancy data.

months in the first three quarters of 2006 and 2007. From I.2008 on, this information only concerns the vacancies to be filled immediately—same as in the fourth quarters—, i.e., since then, no particular period of time has been specified in the inquiry.

3.4.6 Generated Variables: Estimated Vacancies

Between the Q IV 2000 and Q III 2010, estimated variables were added to the IAB Vacancy Survey which served to balance the difference between the numbers vacancies reported to the FEA as specified in the survey and the actual number of vacancies reported to the FEA. These variables represent additional subsidised jobs, i.e. jobs on the secondary labour market, because it can be assumed that establishments are usually unfamiliar with the reporting procedure for these vacancies and therefore do not always specify them during the survey. The subsidised jobs added by estimate are categorized as vacancies to be filled immediately, so that the sum total of vacancies is the result of the sum of vacancies to be filled immediately (f20), the vacancies to be filled at a later date (f40) as well as the subsidised jobs added by estimate (f25z).

As the actual number of subsidised jobs is partly contained in the variables f20 and f40 as provided by the respondents, but also partly in the vacancies added by estimate, it is not possible to calculate the number of vacancies only on the primary labour market at an *establishment* level for the years 2000 through III.2010. They are calculated on an *aggregate* level by subtracting the number of subsidised jobs in the FEA's statistics from the number of vacancies in the entire economy. Since the 2010 survey, subsidised jobs have no longer been specified in BA data, which is why only vacancies in the primary labour market have been surveyed since IV.2010. They can now also be specified on an establishment level. This restricts the ability to compare the number of vacancies between up to III.2010 and IV.2010 and afterwards. Since the fourth quarter of 2010, the entire number of vacancies in the economy is given as STA=f20+f40+f25z+f45z.

3.4.7 Extreme Values for the Number of New Recruitments

Some years suffer from extreme values in the weighted number of new recruitments. This occurs when a very small high-weight establishment reports a high number of new recruits. Such cases are tested for plausibility. Observations deemed plausible are removed from statistics on the number of new recruitments but remain in the data set with the number of new recruitments set to 0 or missing. In 2008, this affected one case with the ID (key) 105616; in 2010, the case with the ID 145200; and in 2011, the case with the ID 170026. In

2012, the new recruitments weights of case IDs 185109 and 185851 have been set to their own respective establishment weights.

3.5 Conversion of the Job Classification Numbers to the Classification of Occupations 2010

3.5.1 Background

In 2011, the new Classification of Occupations 2010 (KldB 2010) was introduced (Bundesagentur für Arbeit 2011). It replaces the Classifications of Occupations 1988 and 1992 which were hitherto used alongside each other (Wiemer et al. 2011:274). The new classification of 2010 is an attempt to stay account for the changes in the labour market. The classifications of 1988 and 1992 ”reproduce the structure of occupations in the 1950s and 1960s and are no longer able to reflect the changed occupational structures of the present-day labour market“ (Wiemer et al. 2011:247). The classification 2010 is therefore designed to reflect today's labour market more accurately. In contrast to the older classifications based on expert knowledge, the new classification is based on grouping of present-day occupations, making use of “systematically maintained occupational information” (Wiemer et al. 2011:276) and applying statistical classification methods. One aim was to increase the differentiation in those occupational fields that have increased in importance. such as commercial and service-oriented occupations, while increasing aggregation in occupations with dinished relevance such as crafts and industrial production, are aggregated more strongly (Wiemer et al. 2011:276/277).

“Against this backdrop, the goal in the redevelopment of the KldB 2010 was to create an up-to-date, generally recognised classification of vocations that meets the diverse requirements of users and which, on the one hand, takes into account the special characteristics of the German labour market with its distinct vocation-specific structuring and, on the other hand, enables linking to internationally comparable classifications of occupation [...]” (Paulus/Matthes 2013:6).

3.5.2 IAB Survey Procedure

Up to and including the third quarter of 2012, occupations were inquired via text fields in such a way that coding could be done either according to the Classification of Occupations 1992 or ISCO 1988. These codes are included in datasets up to the third quarter of 2012.

From the fourth quarter of 2012 on, the text fields have been complemented by the requirement level, so that coding can be done according to the 2010 classification as well as ISCO 2008. These new codes are delivered in datasets from the fourth quarter of 2012. Q IV

2012 with its three subsequent quarters are the only ones that include both classifications to ease the transition. Since the fourth quarter of 2013, only KldB 2010 and ISCO 2008 are included.

3.5.3 Amendments to KldB10

Unlike KldB92, KldB10 has no generalised job titles such as “engineer,” “teacher,” “clerk,” “managing director” etc. Normally, the exact activity description is required, i.e. “mechanical engineer,” “secondary school teacher” etc. But since respondents did not always comply with this rule despite several notes asking them to enter the exact job titles,. It was therefore necessary to amend KldB10 by adding the occupation category “99 — Workers without detailed activity description.” To this end, a total of 8 occupational categories at the 2-digit level and 38 occupational categories at the 5-digit level were defined:

Table 3: Amendment of KldB10 to accommodate workers without detailed activity description

Title	Code	Example
Technical assistant w/o detailed activity description	99001	Production assistant, Production hand, Aide
	99002	Factory specialist, Technical specialist, Journeyman
	99003	Technician, Foreman, Master craftsman
	99004	Engineer, Qualified engineer
	99005	Technical assistant n.o.s.
Commercial assistant w/o detailed activity description	99101	Comm. aides
	99102	Businessman, Fund manager
	99103	Business administrator
	99104	MBA
	99105	Commercial assistant n.o.s.
Service assistants w/o detailed activity description	99201	Service staff, Supporter, Appointment manager
	99202	Service specialist, Advisor, Inspector, Non-teaching staff
	99203	Consultant, Temporary employment agency
	99204	Senior Consultant
	99205	Service assistants n.o.s.
Managers w/o detailed activity description	99301	(does not occur)
	99302	(does not occur)
	99303	Team manager, Managing staff, Site manager, Department head
	99304	Director, Manager, Managing director
	99305	Managers n.o.s.
IT assistants w/o detailed activity description	99401	IT staff (requirement level 1)
	99402	IT professional

Title	Code	Example
	99403	IT specialist
	99404	IT expert
	99405	IT profession, IT assistant n.o.s.
Teachers w/o detailed activity description	99501	School assistant
	99502	Qualified teacher
	99503	Teacher
	99504	Lecturer, Teacher with a university degree
	99505	Teacher n.o.s.
Workers in training w/o detailed activity description	99601	Trainee
	99601	Intern/Volunteer
	99601	Other workers in training
Workers w/o detailed activity description	99901	Helper, temporary assistant, Semi-skilled employee, Unskilled worker
	99902	Professional, Worker, Assistant
	99903	Specialist
	99904	Expert
	99905	Workers n.o.s.

4 Data Access

The IAB website at http://www.iab.de/stellenerhebung provides the current questionnaire, policy reports and press releases fro the IAB Job Vacancy Survey. Moreover, there are further links to contact persons, data protection, methodology, and data access. The latter is provided by the Research Data Centre of the BA at the IAB (FDZ):

(http://fdz.iab.de/de/FDZ_Establishment_Data/IAB_Job_Vacancy_Survey/IAB_Job_Vacancy_Survey_Outline.aspx).

Currently, data from the surveys from Q IV 2000 to Q III 2014 can be accessed via the FDZ. Usage is possible via remote data processing or on-site use at the FDZ. Apart from the code plans for the individual quarters and in addition to the usual classifications of economic activities, the FDZ also provides the Classification of Occupations of 1992 (KldB 92—3-digit code) and of 2010 (KldB 210—5-digit code) of the Federal Statistical Office and/or the Federal Employment Agency as well as the International Standard Classification of Occupations of 1988 (ISCO 1988—4-digit code) and 2008 (ISCO 08—4-digit code). These job aids make it possible to match the existing occupational codes in the questionnaires with the corresponding job titles. A count of the individual variables is also available.

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Corresponding author:
Andreas Moczall
Institute for Employment Research (IAB)
Regensburger Str. 104
D-90478 Nürnberg
Phone: +49-911-179-3066
Email: Andreas.Moczall@iab.de