

## **METHODS – APPROACHES – DEVELOPMENTS**

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### The catchword

Microcensus follow-up survey - a project of the Federation and the Länder to measure the
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## The keyword

# Microcensus follow-up survey – a project of the Federation and the Länder to measure the ILO employment status

Measuring the employment status according to the concept of the International Labour Organization (ILO) is a key objective of the microcensus and the integrated EU Labour Force Survey (LFS). The LFS is the standard source of numerous employment policy indicators of the EU Commission (e.g. the employment rate). So in recent years, deviations of microcensus/LFS results from other data sources in respect of the number of persons in employment started a methodological discussion about the way in which to measure the activity status in household surveys.

To be able to systematically study the problems linked with the measurement of the ILO employment status and to quantify causes the differences in results may have, the Federal Statistical Office conducted a microcensus follow-up survey in 2008 together with the statistical offices of the Länder of Baden-Württemberg, Bayern, Berlin-Brandenburg, Nordrhein-Westfalen, Hessen and Sachsen, which was supported financially by the European Commission. The present article provides an overview of the background, the method used in the follow-up survey, and first results.

#### Microcensus results differing from those of other data sources

For several years there have been discussions about the fact that the microcensus shows lower employment figures than other data sources, for instance the employment accounts which form part of national accounts. In the past few years, the differences in the results, which had reached their peak in March 2004 with 2.8 million persons, could be reduced considerably by a number of improvements. For example, the questionnaire design has been improved and interviewer training has focussed more on covering the employment status according to the ILO concept since 2005. There also are a number of methodological improvements due to the changeover to a continuous survey in 2005, which have also had positive effects on the coverage of small-scale economic activity (e.g. laptop interviews throughout the survey, reduction of the number of interviewers). The changes have brought about considerable improvements; the number of persons in employment determined by the microcensus for the year 2007 was only about 1.5 million below the figure from employment accounts.

Comparative analyses of the differences remaining between the microcensus and for instance the register-based employment statistics of the Federal Employment Agency imply that the deviations are largest for persons with small-scale economic activities. So the number of persons in marginal employment in 2007 as determined by the microcensus was 0.9 million lower than the figure provided by the employment statistics. The difference in the result is distributed quite unevenly among the various age groups and sexes. The largest deviations have been recorded for persons below the age of 25 and persons aged 55 years and over. It was therefore often assumed that especially small-scale economic activities of pupils, students and of retired persons are not always recorded by the microcensus.

#### Follow-up survey: verifying assumptions about measurement errors

In the discussions of recent years, different theses were dealt with as to why the measurement of small-scale economic activities may cause problems in household surveys – after all, persons who worked only one hour per week are regarded as economically active according to the ILO concept. The follow-up of households which had provided information for the microcensus served to submit those theses to systematic empirical testing. The following theses and assumptions were checked by re-interviewing microcensus participants:

- Proxy effects: well above one fourth of the persons covered by the microcensus are not surveyed personally, but by means of a proxy interview, i.e. questions are answered by another household member. Therefore it has repeatedly been assumed that incorrect information may be supplied on small-scale economic activities pursued or searched for because respondents know no better. To verify this assumption, the follow-up survey covered both persons for whom another household member had provided information in the microcensus, and persons who had answered themselves. A comparison of both groups allows for proxy effects to be estimated.
- Main activity status used as a guideline: with a lower threshold of only one hour of working time per week, the concept of the ILO employment status differs markedly from respondents' everyday notion of being economically active. Many studies indicate that in an interview respondents rather refer to their main social status (main activity status), which is closer to their everyday notion of their situation. Groups such as university students, pensioners and housewives/housemen, whose main activity is often not an economic activity, mainly have their prevailing status in mind and may not always indicate their small-scale secondary economic activities. Especially those working only periodically, sequentially or in marginal employment will frequently regard themselves as not economically active although they actually are economically active according to the ILO definition. In order to improve coverage of the ILO activity status in particular at the margins of the labour market, the respondents' own assessment of their main activity status is used for a follow-up on the labour force participation of specific target-groups.
- Misclassification of persons in marginal employment: finally, it is often assumed that part of the respondents wrongly classify themselves as economically active on a normal scale because they do not know the correct definition of marginal employment. The microcensus questions relating to labour force participation are answered correctly but the question whether marginal employment is pursued is answered in the negative. In the follow-up survey, respondents were therefore asked about the income level (EUR 400) relevant for marginal employment in addition to the type of employment they had. This enables a comparison between respondents' self-classification and the existence of objective criteria for marginal employment.

In the participating Länder, households were recruited for the follow-up survey after the regular microcensus interview had been conducted; some 20% of the households which had been asked agreed to participate. Between April and August 2008, about 4,000 persons from the age of 15 to 74 years were interviewed again about their employment status by the statistical offices of the Länder on the basis of Computer Assisted Telephone Interviewing (CATI). Information was to be provided for the same reporting week as in the regular microcensus. The survey instrument of the follow-up survey was specifically optimised with a view to covering smaller secondary jobs and revised after a cognitive pre-test at the Leibniz Institute for the Social Sciences (GESIS). When respondents had given their consent, the data from the follow-up survey were linked with the original data from the latest microcensus interview. This link enables comparative analyses and indicates groups of persons in whose case is particularly difficult to record the ILO employment status in the microcensus. In addition to that, the direct interviews of both the respondents who had participated in the microcensus interview and the proxy respondents of the microcensus made it possible to form control and reference groups. Thanks to that, proxy effects and main activity status effects could be studied separately.

#### Main results of the follow-up survey

A comparison of the two survey results shows that nearly 4% of all respondents reported an economic activity only in the follow-up survey. Especially pupils, students and pensioners mentioned small-scale economic activities only after having been asked about them directly. Whether a person had provided information in the microcensus himself/herself or by proxy played only a minor part with pensioners while it had no impact at all with pupils and students.

All in all, the differences between the two surveys, the microcensus and the follow-up survey, show that the differing information can be explained only to a very small extent, if at all, by the proxy situation in the original survey. The results of the follow-up survey rather suggest that persons in marginal employment or casual workers often have their main activity status in mind and therefore sometimes do not provide any information on economic activity for the microcensus.

The second central result was that many respondents see no clear difference between marginal employment (according to the definition of the Social Security Code) and activities exceeding such marginal employment. Therefore, on account of the information obtained in the follow-up survey, it has to be assumed for part of the respondents who had not indicated any marginal employment in the microcensus that their pursuing such an activity (small number of working hours per week and monthly wages below EUR 400) is at least probable. The assumption that the number of persons in marginal employment according to the microcensus is too small because respondents do not know the concept of marginal employment could be confirmed by the results of the follow-up survey. The follow-up survey has also shown that groups of persons can be identified where there are problems with measuring the ILO employment status and that it is possible to derive indications of economic activity being underrecorded.

Considerable differences between the microcensus and the follow-up survey could finally be identified with regard to the information provided on the search for work, which is central for determining the number of unemployed persons. The follow-up survey made it possible to show that there are methodological effects of the wording and order of the questions which suggest a high response variability and accordingly limited reliability of the responses on job search. However, the resulting consequences for the unemployment figures still point in various directions and therefore have to be analysed further before being finally assessed.

The findings of the follow-up survey suggest how to further develop the microcensus and the Labour Force Survey as a whole: even more than in the past, the comprehensibility of the questions and answer categories should be checked by means of qualitative and quantitative pretests. In wording the questions, great importance has to be attached to translating concepts of special interest into everyday language, i.e. testing whether the central terms in important microcensus questions are understood correctly. Another goal to be pursued in further developing the microcensus questionnaire – especially for computer-assisted personal interviewing – would be to develop a questioning technique which is geared as much as possible to different target groups. As shown by the results of the follow-up survey, both a better comprehensibility of the questions and target-group oriented interviewing enable an improved coverage of the ILO employment status and may contribute considerably to improve the measurement of the ILO employment status in the microcensus. It has also turned out that the response behaviour with regard to questions about the job search is influenced by the order of questions and by filters directing the respondent through the questionnaire. So on the whole, the follow-up survey has provided important clues also for a further harmonisation of the survey instruments used in the EU member states.

Although it was not possible look in detail at the survey technique employed in the follow-up survey, the findings after all suggest that it may also have an impact on the response behaviour. Such effects are to be studied more closely in a project to be carried out by the statistical offices of the Federation and the Länder in the next two years with support from the European Commission.

The complete results of the microcensus follow-up survey will be published in a detailed report after completion of the evaluation work.

#### Outlook: studying other data sources of employment statistics

The microcensus follow-up survey provided important insights into the problems of measuring the ILO employment status in the microcensus. The findings are plausible with regard to the deviations from employment accounts and register-based employment statistics which have been identified. However, the extent to which the deviations of the results are due to the measurement problems indicated cannot exactly be quantified. Therefore it has to be kept in mind that special features of the register-based employment statistics may also contribute to the differences in results. Apart from systematic quality checks of the data accruing when information is reported to social insurance carriers, so far there is no comparable way to analyse possible methodological distortions of results in employment statistics. In a co-operation project of the Federal Statistical Office and the Federal Employment Agency scheduled for 2009, a supplementary survey of the persons in marginal employment recorded in the register is to be carried out in analogy with the microcensus follow-up survey.

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### Methods of federal statistics – Further development

## Implementation of a pretest laboratory and questionnaire testing in official statistics

#### 1. Background

Currently, official statistical agencies produce more than 170 federal statistics on the basis of data obtained by questionnaires. However, shortcomings due for instance to inadequate survey documents can only be compensated with considerable effort (e.g. by additional plausibility checks or checking with respondents) after a survey has been conducted. In order to reduce measurement errors – and the additional work they cause – official statistical agencies analyse not only sampling errors but also errors attributable to the survey instrument, response behaviour or to interviewers.

With the help of appropriate methods, questionnaires can be tested in different development phases. To this end, most different groups of persons (e.g. experts, statisticians, interviewers and potential respondents) are consulted. The testing of questionnaires pursues two primary goals: 1. reducing the burden on respondents by questionnaires which are easy to understand and to fill in; 2. increasing the data quality by making it possible to achieve better validity and reliability, which also benefits the users of statistical data in the end.

The necessity to conduct pretests is undisputed by researchers and an international standard at numerous statistical institutes already (e.g. U.S. Census Bureau and statistical institutes of Canada, the Netherlands and Scandinavia). Conducting pretests is in keeping with the European Statistics Code of Practice to which Destatis committed itself like all other statistical institutes of the European Union. In the Code of Practice, 15 principles have been laid down as joint quality standards governing the entire statistical process. Principle 8 ("Appropriate Statistical

Procedures") requires that "in the case of statistical surveys, questionnaires are systematically tested prior to the data collection."<sup>1</sup>.

Against that backdrop, a specific unit was established at the Federal Statistical Office in 2006, which received a pretest laboratory for questionnaire testing at the end of 2007. In the past, pretests have often been conducted for the official statistical authorities by external institutes, for instance by the former Centre for Survey Research and Methodology (ZUMA) in Mannheim, today GESIS, Leibniz Institute for the Social Sciences. This co-operation will continue so the continuous demand for testing can be met and an adequate transfer of knowledge be guaranteed.

To support the statistical institutes in selecting suitable procedures for introducing pretests, the Statistical Office of the European Communities (Eurostat) has issued a handbook providing specific recommendations for questionnaire development and testing.<sup>2</sup> The design of pretests to improve survey documents at Destatis is based, inter alia, on those recommendations. In accordance with the recommendations of the handbook, systematic questionnaire testing is advisable under the following circumstances:

Legislative changes require a new survey.

New questions which have not been tested are included into an existing questionnaire.

The data collection instrument has been changed or additional data collection modes have been introduced (e.g. online survey).

Data quality has been found to be poor.

So pretests are recommendable not only when new surveys are introduced. They also are a helpful instrument to warrant data quality when ongoing surveys are checked and questions added. In fact, pretest methodology has existed for 25 years and is nothing new. However, in the general perception, the degree to which it is known and the intensity it is dealt with have increased strongly only in the last ten years.<sup>3</sup> In the following, some of the major testing methods will be outlined.

#### 2. Methods of testing

There are multifarious testing methods for evaluating questionnaires. Depending on the focus of analysis, these methods can be used alone or in combination in the various phases of the questionnaire development process and are classified differently by researchers. The methods drawn upon when a questionnaire is designed and prepared differ from those used when an existing survey instrument undergoes testing or data may be available from former surveys. <sup>4</sup>

Not considering procedures which accompany the development of the survey instrument and are an essential basis of an elaborate questionnaire, it is often distinguished between the following:

Qualitative testing methods involving a small number of test persons (some 10 to 20) and interlocutors are often carried out in the (pretest) laboratory, and quantitative methods testing a questionnaire with the help of many potential respondents (usually more than 100) are often applied under "field conditions", i.e. in the respondents' homes.

<sup>&</sup>lt;sup>1</sup> <u>http://epp.eurostat.ec.europa.eu/portal/page?\_pageid=2273,1,2273\_47141302&\_dad=portal&\_schema=PORTAL</u>

<sup>&</sup>lt;sup>2</sup> <u>http://epp.eurostat.ec.europa.eu/pls/portal/docs/PAGE/PGP\_DS\_QUALITY/TAB47143266/RPSQDET27062006\_0\_0.PDF</u>

<sup>&</sup>lt;sup>3</sup> See Ehling, M.: "Pretest – Ein Instrument zur Überprüfung von Erhebungsunterlagen" in WiSta 3/1997, pp. 151-159.

<sup>&</sup>lt;sup>4</sup> http://epp.eurostat.ec.europa.eu/pls/portal/docs/PAGE/PGP\_DS\_QUALITY/TAB47143266/RPSQDET27062006\_0\_0.PDF

These two approaches basically differ in so far as qualitative testing draws upon methods from qualitative and cognitive psychology research which may provide insights into the way respondents understand certain concepts and why incorrect information is entered, while quantitative testing methods cover a large number of respondents and make it possible to analyse the frequency with which certain problems occur.

#### **Qualitative testing methods**

The three qualitative testing methods applied most frequently are: (a) cognitive interviews of potential respondents with different interviewing techniques (mostly in the laboratory; with businesses often as "company site visits", i.e. interviews on company premises), (b) group discussions with experts, and (c) observation of subjects while they fill in questionnaires.<sup>1</sup>

(a) Presently, the most important method in qualitative testing doubtlessly is the cognitive interview, which involves between 10 and 20 test persons. It aims to find out how respondents proceed when they answer questions, what grasp they have of concepts and whether questions or the wording are unclear. Only seldom is the complete questionnaire submitted to testing but specific subjects are selected. Cognitive interviews are conducted in a structured and (partly) standardised manner with a cognitive testing protocol to ensure the comparability of interviews by using the same questions for testing. If possible, the interviews are video recorded in the pretest laboratory and evaluated one by one. Depending on survey requirements and the focus of interest, various techniques may be used. These are for instance probing (asking follow-up questions on terms and concepts), think aloud techniques, paraphrasing, confidence rating (by the respondent), and sorting (of terms, concepts and situations).<sup>2</sup>

(b) Group discussions are held with subject matter experts, methodologists or e.g. data entry staff to check specific shortcomings by different groups of users. They provide background information e.g. about weak spots in the layout, wrong entries and nonresponse. However, expert group discussions belong to the methods which do not take the viewpoint of respondents into account. They should therefore be combined with other methods. <sup>3</sup>

(c) Observing test persons in the laboratory while they are filling in questionnaires also has a high informative value: comments, facial expressions and gestures during questionnaire completion highlighted problematic spots and thus supplemented the cognitive interview. So observations made indicated that there were difficulties handling the survey instrument. They also provide reliable estimates of how long it takes to fill in the respective questionnaire.

#### Quantitative testing methods

Quantitative testing methods are generally used "in the field" with a large number of respondents in order to assess the frequency of difficulties occurring. Methods employed for evaluating questionnaires under field conditions are as similar to the actual survey as possible with regard to the interview situation, the length, selection and order of the questions. Field methods can be applied in a field test specifically designed for the purpose, in a pilot survey (which is to monitor other survey processes, too) or they may accompany an ongoing survey during the actual data collection process. As they cover a larger number of survey units, they permit quantitative analyses of the errors occurring. The focus is not only on certain aspects of

<sup>&</sup>lt;sup>1</sup> There also are focus groups, as they are called, which are mostly regarded as qualitative testing in the pertinent literature. As the present overview focuses on the methods carried out most frequently in the pretest laboratory, focus groups are not treated in detail. A recommendable introduction into the basics would be: Krueger, R. A./Casey, M. A.: "Focus Groups. Practical Guide for Applied Research", 3rd edition, Thousand Oaks (CA): Sage Publication 2002.

<sup>&</sup>lt;sup>2</sup> For the techniques and on how to conduct cognitive interviews see in particular Willis, G. B.: "Cognitive Interviewing – A Tool for Improving Questionnaire Design", Thousand Oaks (CA): Sage Publications 2005. For a brief overview see <a href="http://www.gesis.org/en/institute/">http://www.gesis.org/en/institute/</a>

<sup>&</sup>lt;sup>3</sup> http://www.census.gov/srd/pretest-standards.pdf

the survey instrument, as it often is the case with qualitative methods, but on the entire questionnaire.

Three different testing methods are used:

(a) Methods processing the experience gathered while the quantitative test was conducted: e.g. classification of interviewer/respondent interaction by means of a coding scheme<sup>1</sup> (behaviour coding), also group discussions after field work with interviewers describing their experience with questionnaire handling to experts of questionnaire design (interviewer or respondent debriefing) or interviews conducted after the actual survey has been held to test respondents' understanding of concepts and questions (follow-up interviews).

(b) Conducting experiments such as the testing of different versions of questions or questionnaires to obtain information on major aspects of data quality, response distributions and costs (split sample method<sup>2</sup>) is among the quantitative procedures.

(c) In addition to that, evaluation methods used after the data have actually been collected are regarded as quantitative testing methods. Aspects analysed are for instance item nonresponse, response distributions per question and editing or imputation rates based on the data already obtained.

#### 3. Outlook

Theoretical and practical findings may be summed up by stating that an ideal pretest combines methods from both the qualitative and quantitative spheres. Only such combination affords the opportunity to show both reasons for and the scope of potentially false entries. With the help of the tests carried out so far, results could be provided on very different levels: For EU-SILC (Leben in Europa) it could for example be shown that a new module of questions to record employers' contributions to social security funds, which was planned for all of Europe, cannot be introduced in that form in Germany. Regarding the introduction of the new Classification of Economic Activities 2008 it became clear what technical problems of data collection have to be reckoned with. In the case of the microcensus, important indications were obtained in the pretests as to how the present survey instrument can be improved and which future methodological problems will have to be solved.

Apart from conducting current tests, the continuous further development of the data collection and testing methods is an essential element of work. Therefore, a usability workplace was established in the Destatis pretest laboratory at the end of 2008 to check electronic questionnaires. That technical device permits the testing of electronic survey instruments and websites with regard to their user friendliness and functionality.<sup>3</sup>

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<sup>&</sup>lt;sup>1</sup> For an example of a coding scheme see Eurostat (2006): pp. 108-109.

<sup>&</sup>lt;sup>2</sup> See for instance Fowler, F. J.: "The Case for More Split-Sample Experiments in Developing Survey Instruments", in: Presser, S. et al. (eds.): "Methods for Testing and Evaluating Survey Questionnaires", New York: John Wiley and Sons 2004, pp. 173-188.

<sup>&</sup>lt;sup>3</sup> On how to conduct usability tests see Dumas, J. S./Redish, J. C.: "A Practical Guide to Usability Testing", revised edition, Exeter/Portland (OR): Intellect Books 1999 and Rubin, J.: "Handbook of Usability Testing. How to Plan, Design, and Conduct Effective Tests", New York: John Wiley and Sons 1994.

#### New concept for the system of tax statistics

The terms "taxes" and "statistics" are unlikely to meet with much enthusiasm from most people, especially in that combination. The present article is to show that exciting and interesting developments are taking place in that field.

#### Current status of the system of tax statistics

The data of the tax statistics come from the advance tax return or tax assessment procedures of the fiscal administration. This is why there are some specific features. It is obvious that tax statistics are secondary statistics, i.e. the data originate from administrative acts. They also are exhaustive (only persons or enterprises exempted from taxation and tax evaders who do not file tax returns at all or false ones cannot be covered correctly). There is no burden on respondents as further surveys are unnecessary. The data are of a high quality – at least regarding the variables relevant for taxation – since both the taxpayers and the fiscal administration have a vested interest in determining the correct amount of tax. At first glance this seems to be an oasis in statistical terms, with almost 100% of the universe being covered and very good data quality.

Tax statistics serve as a basis of information for politics, the economy, the scientific community and the public in general. For example, the development of donor behaviour or gender-specific differences in income generation can be shown on the basis of the wage and income tax statistics, while the turnover tax statistics provides an overview of enterprises' sales in nearly all economic sectors. The impact of tax legislation modifications is also analysed and assessed with the help of the tax statistics.

Unfortunately, the tax statistics have one disadvantage which is eventually due to the tax assessment procedure. Their currentness depends on the deadlines of the taxation procedure and their catalogue of variables on its features. Tax returns may be filed with considerable delay, for instance when a tax consultant is involved or corrections are made several years later on account of objections. Therefore, the statistical processing of a fiscal year takes up to 3 ½ years. In addition to that, first results of the tax statistics processed in the form of federal statistics are available at Destatis for the publication of federal results only after three years have passed due to the federal distribution of tasks (the statistical offices of the Länder possess the data). During that period, the data are collected, processed and sent to Destatis by the statistical offices of the Länder once the last portion of data has been received. This procedure does not allow for up-to-date evaluations to be carried out in order to deal with specific issues regarding the federal result. However, the processing of the data at the statistical offices of the Länder is essential as expert scrutiny is indispensable in particular with topics of minor importance for taxation (e.g. the branch of economic activity indicated). Due to the large data volumes, the regular exchange of the data is a problem.

The DP procedures presently used have further shortcomings. There are IT "island solutions" for tax statistics which make it impossible to use synergy potentials between different statistical areas. Several steps performed in processing the data of the various tax statistics are in fact similar but have to be carried out separately because of the different structures having evolved over time. One example is checking whether the branches of economic activity were indicated correctly. With the existing DP procedures, the result of that check cannot automatically be used for the other tax statistics because work is isolated and programs differ.

Legislation requires that most federal statistics in the field of taxation be processed annually in the future. So far, three to five years have elapsed in most instances. Additionally, a new tax statistics will have to be processed: the turnover tax statistics based on turnover tax returns. This means that the workload to be dealt with by the statistical offices of the Federation and the Länder will grow considerably, and in times of scarce resources this cannot be managed without modern DP procedures. To sum it up, the system of tax statistics needs to be improved since requirements have changed with regard to currentness, flexibility, and efficiency.

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#### New system of tax statistics

The new system is to retain existing advantages, eliminate shortcomings and thus help to increase efficiency. This seeming contradiction can only be resolved by comprehensive organisational and technical modernisation. The system is to be based on the concept of central (statistics) production and data management. All data of tax statistics will thus be imported into a central database and then be processed and evaluated there. In keeping with the tasks they have been assigned by the legislator, the statistical offices of the Federation and the Länder will have decentralised access to that database via a web application. A relational MySQL database will be used for the purpose, which is to be linked to an SAS server for flexible and complex evaluations. The database itself will be subdivided into three functionally separate elements: an input database, a processing database and an evaluation database. In the input database, all steps will be performed which are necessary to import the data correctly. The processing database will be used to handle the data. All functionalities needed to process the data statistically will be linked to that database. High data quality will continue to be guaranteed as the statistical offices of the Länder will remain responsible for editing their data. Then there will be a uniform DP procedure for all tax statistics, which though geared to the requirements of the respective tax statistics, will have uniform basic functionalities. In addition to a higher IT efficiency to be achieved by using a uniform framework program for all tax statistics, uniform templates and procedures will provide ergonomic advantages. Data processing will be facilitated further for all sets of statistics as with automatic data matching it will be possible to draw upon the results of data editing already completed. The turnover tax statistics (advance returns) is to be used as a kind of master statistics. It is the most up-to-date tax statistics and will be the first to be edited. The data stored in the processing database may be used at any time for current special evaluations to be carried out for the supreme fiscal authorities of the Federation and the Länder. The evaluation database will contain data the processing of which has been completed. In addition to producing tables for publication (including confidentiality), there are plans that complex evaluations should also be possible there. Evaluations involving several statistics or panel surveys will be facilitated considerably as there will be a central stock of data to be drawn upon.

Reaping all the benefits by combining central data storage and decentralized expert knowledge is a great challenge to all involved in the project. Many organisational and technical imponderables have to be considered and coped with. New procedures have to be developed only to be able to deal with the large amount of data, which after the integration of all tax statistics will be in the order of terabytes (with an upward trend). However, in the conception phase, many processes concerning several statistics could already be identified and synergy potentials be tapped. The first module of the system is presently being programmed so that statistics production can start in 2009 for turnover tax returns. The other tax statistics will be integrated successively. This new system will enable the statistical offices of the Federation and the Länder to meet the growing requirements of users, especially with regard to the quality and currentness of data.

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# Effects of the new EU regulation concerning structural business statistics on service statistics

The recast EU Regulation on Structural Business Statistics (Regulation No 295/2008 of 11 March 2008 replacing EU Regulation No 58/97 of 20 December 1996) was adopted, among other things, to account for the increasing need for data on the services sector. In addition to breaking existing characteristics to be transmitted down further and defining several new ones, it extends the scope of the "Structural Regulation" to economic sectors not covered so far.

Entirely new is the request for data on individual "products" of the services sector (product types) relating to 2008 as the first reference year. Enterprises with at least 20 employees operating in particularly dynamic service fields are to break down their turnover by specific predetermined product types according to the Classification of Products by Activity in the European Economic Community (CPA). For instance, 14 "products" are determined for the turnover of IT service enterprises, for instance publishing of computer games, software development, hosting and Web portal content. Such differentiated coverage aims to gain insights into the composition of turnover in the services sector. It is expected that information will also be obtained on enterprises' degree of specialisation in individual economic fields.

In addition to IT service enterprises, businesses operating in advertising, temporary employment, legal activities, architectural and engineering activities, technical testing and analysis, auditing, accounting, bookkeeping, market research and public opinion polling, and management consultancy also are to be examined more closely.

Also new is the request for data on cross-border trade in services broken down by Intra-EU and Extra-EU trade. This is to monitor the significance of international services in the various member states of the EU, the functioning of the Single European Market and the effects of impediments on the trade in services.

These new data requirements are laid down in Annex VIII of the EU Structural Regulation, the "detailed module for structural statistics on business services", as it is called.

There is another essential change concerning the characteristics to be transmitted by the member states. In total, three new characteristics are required for the services sector:

- number of employees in full-time equivalent units
- payments for agency workers
- gross operating surplus.

While the gross operating surplus can be calculated on the basis of the existing data material (gross value added minus personnel costs), data for the other two characteristics have still to be collected in Germany. Theoretically, it would be possible to estimate the number of employees in full-time equivalent units because there already are employee-related official reporting systems containing data on the amount of work done in the form of hours worked or hours paid. However, especially in the heterogeneous services sector it has to be assumed that usual working hours and unpaid overtime differ between branches so that presently the direct collection of full-time equivalent units is preferred to a mere estimation.

The EU legal provisions were implemented in Germany under the Act Regarding the Simplification and Adjustment of Legal Provisions Concerning Statistics of 17 March 2008 supplementing and adapting the Service Statistics Act of 19 December 2000. With the modified version of the legal basis, both payments for agency workers and the number of employees in full-time equivalent units can be covered. An essential modification from reference year 2008 relates to the scope of the structural survey in the services sector. With the entry into force of NACE Rev.2, coverage will be extended from two sections of NACE Rev.1.1

- Section I: Transport, storage and communication
- Section K: Real estate, renting and business activities

to five sections and one division:

- Section H:	Transport and storage

- Section J: Information and communication
- Section L: Real estate activities
- Section M: Professional, scientific and technical activities
- Section N: Administrative and support service activities
- Division S-95: Repair of computers and personal and household goods.

This shows that enterprises in the services sector are monitored with a much higher degree of differentiation on the basis of the new NACE (or WZ 2008, i.e. the German Classification of Economic Activities). In addition, through both the new Structural Regulation and the conversion to NACE Rev.2, such branches will be covered by the structural survey which so far have been affected by official statistics only seldom or not at all. Especially enterprises from the spheres of audio vision and publishing, news agencies and veterinarian practices will be included in the group of respondents covered by structural statistics. The first survey to meet the new requirements will be conducted in autumn 2009 for reference year 2008. First results of that structural survey will be available in summer 2010.

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### **Events**

## 17<sup>th</sup> Scientific Colloquium: "Observing health – Utilisation, integration and enhancement of existing data sources"

In co-operation with the German Statistical Society, the Federal Statistical Office held the 17<sup>th</sup> Joint Scientific Colloquium on the subject of "Observing health – Utilisation, integration and enhancement of existing data sources" in the Wiesbaden Museum on 20 and 21 November 2008. In contrast to the scientific colloquia of previous years, this event linked two separate conferences. The scientific colloquium taking place annually and the workshop on "Data bases for health research in Germany" convened at the Robert Koch Institute for the first time two years ago were held together.

The event was moderated by Prof. Dr. Klaus-Dirk Henke, Professor at the Institute for Economics and Commercial Law of Berlin Technical University, who also gave an introduction into the subject. The specialist discussion was opened by Prof. Dr. Dr. Ulrich Mueller, Director of the Institute for Medical Sociology and Social Medicine of Marburg University with his contribution on "Data requirements for empirical health research and political counselling". Dr. Bärbel-Maria Kurth then presented a concept for continuous health monitoring developed at the Robert Koch Institute Berlin in her contribution on "Health monitoring at the Robert Koch Institute – Goals and concepts". Hartmut D. Buchow from Eurostat in Luxembourg informed the participants about the "European Health Survey System (EHSS)" adopted in 2002. Head of the Health Division at the Federal Statistical Office Karin Böhm spoke about a "New emphasis in health statistics", i.e. changes in official statistics in the past few years. Based on that contribution, Patricia Lugert, member of academic staff at the Research Data Centre of the Federal Statistical Office in Wiesbaden, introduced microdata available on health in the last contribution of the first colloquium day and referred in particular to data of statutory health insurance for the year 2002.

The Gerhard Fürst Award for outstanding scientific papers closely related to official statistics was presented for the tenth time in a ceremony at the close of the first day of the scientific colloquium. Professor Dr. Hans Wolfgang Brachinger from the University of Fribourg in Switzerland, chairman of the Gerhard Fürst Award jury, delivered the laudatory speeches for this year's two winners. Further information on the Gerhard Fürst Award 2008 of the Federal Statistical Office is provided in a separate article in this publication and on the website of the Federal Statistical Office at <a href="http://www.destatis.de">http://www.destatis.de</a>.

Various health surveys were presented also on the second day of the colloquium. The first speaker was Jan Böcken with his contribution on the health monitor of the foundation Bertelsmann Stiftung. Klaus Zok from the Scientific Institute of the AOK Health Insurance (WIdO) in Bonn reported on the WIdO monitor, a survey on public health services conducted by the AOK Health Insurance covering insured persons which mainly analyses the attitude of the insured towards current issues in the political discussion of healthcare. This was followed by the contribution on "Regionalised health reporting and surveys" by Dr. Joseph Kuhn of the Bavarian Land Office for Health and Food Safety. By means of several examples, he explained how fields of activity in health policy are supported by health reporting in Bavaria.

The 17<sup>th</sup> Scientific Colloquium was concluded with a panel discussion on the subject of "Health indicators – Chances and limits ". In addition to some of the speakers mentioned above, participants of the panel were Dr. Roswitha Voigt from the Federal Ministry of Health, Jürgen Töppich from the Federal Centre for Health Education and Dr. Wolfgang Hellmeier from the Land Institute for Health and Employment of Nordrhein-Westfalen.

For abstracts of all papers please refer to the internet pages on scientific colloquia at <a href="http://kolloq.destatis.de/">http://kolloq.destatis.de/</a>. From the beginning of 2009, the texts of the papers will also be available there as free downloads.

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#### 2008 Gerhard Fürst Award

On 20 November 2008, the 2008 Gerhard Fürst Award was presented to the winners on the occasion of the 17th Scientific Colloquium held jointly with the German Statistical Society. Based on the recommendations of the panel of independent jurors, Peter Weigl, Vice-President of the Federal Statistical Office, awarded the 2008 Gerhard Fürst Award to two scientific papers which are closely related to official statistics. In the category of diploma/master's dissertations, the diploma dissertation by Martin Vogt of Trier University on "Small Area Estimation: The Estimators of Fay-Herriot and Battese-Fuller-Harter" was regarded by the jury as an outstanding achievement and awarded the 2008 Gerhard Fürst Award. In the same category, the master dissertation by Felix Wolter of Mainz University entitled "Analyses of unemployment using microcensus data" was judged by the jury to be equally outstanding and worth an award. Both papers were thus awarded the 2008 Gerhard Fürst Award for diploma/master's dissertations; the prize money is EUR 2 500 for each of the winners.

By offering the Gerhard Fürst Award every year, the Federal Statistical Office seeks to strengthen the existing links between the work of the official statistics bodies and that of institutions of higher education. At the same time, the award is intended to encourage junior scientists to make extensive use in their empirical research of the wide variety of data offered by official statistics. An appropriate setting for the annual Gerhard Fürst Award was provided by the 17th Scientific Colloquium on the subject of "Observing health – Utilisation, integration and enhancement of existing data sources". This scientific colloquium was held by the Federal Statistical Office in cooperation with the German Statistical Society in Wiesbaden on 20 and 21 November 2008. For more information about the 17th Scientific Colloquium please refer to the relevant chapter in this publication or to the Internet at: http://kollog.destatis.de/. There, you will find abstracts of all papers and, from the beginning of 2009, the papers themselves for free download. More detailed information on the Gerhard Fürst Award is available under the heading "Scientific forum" on the website of the Federal Statistical Office at: http://www.destatis.de. There you will find, for example, abstracts of the award-winning papers and information on the conditions of participation for the 2009 Gerhard Fürst Award, whose deadline for submissions is 31 March 2009. Professor Dr. Hans Wolfgang Brachinger (University of Fribourg/Switzerland), chairman of the independent Gerhard Fürst Award jury, delivered the laudatory speeches at the award-giving ceremony on 20 November 2008. These speeches were published in Volume No. 12/2008 of the journal "Wirtschaft und Statistik". In addition, the award-winning authors published detailed articles on their dissertations in the journal "Wirtschaft und Statistik" at the beginning of 2009.

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