

METHODS – APPROACHES – DEVELOPMENTS

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Subject-related information

on this publication:

Division IB, Christian König
tel: (+49-611) 75 20 77
fax: (+49-611) 75 39 50
christian.koenig@destatis.de

General information

on the data supply:

Information service,
tel: (+49-611) 75 24 05
fax: (+49-611) 75 33 30
info@destatis.de
www.destatis.de

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The catchword

The continuous microcensus

The microcensus is an annual household survey which collects data on about 820 000 persons, or 370 000 households. The microcensus is taken as a decentralised survey, which means that the field work activities are organised by the statistical offices of the Länder which then forward the survey data to the Federal Statistical Office where federal results are compiled.

The microcensus covers a broad range of subjects with emphasis on socio-economic and socio-demographic issues. The Labour Force Survey of the European Union, which is taken in the whole of Europe and covers a similar spectrum of variables, forms an integral part of the microcensus. This integration, on the one hand, is a means of saving costs and, on the other, helps to reduce the burden on the respondents because the one integrated survey facilitates meeting national and European requirements. The microcensus is based on a legal provision with a limited period of validity, the Microcensus Law. In 2004, the former "Law on the Execution of a Sample Survey of the Population and the Labour Market and of the Housing Situation of Households (Microcensus Law)" of 17 January 1996 was replaced by the Microcensus Law 2005 of 24 June 2004. This new Microcensus Law will be in force until 2012.

The new Microcensus Law has led to content- and subject-related as well as methodological changes in major sections of the survey. The content-related changes refer to the survey programme which, based on a compromise solution, has been adapted to the current requirements of the political and scientific communities.

The survey programme of the microcensus has always been quite comprehensive. Since only few questions were considered to be expendable during the discussions on the new law, not all needs and expectations could be taken into account in the new catalogue of questions. The burden imposed on the respondents and the ensuing acceptance of the survey by the respondents are very important criteria for the extent of the questionnaire. The essential and well-proven core parts of the list of variables have been retained but extended by the subject "migration". As a result of this extension, variables concerning foreigners, which in the past were only collected every four years, have been incorporated into the annual programme. Further extensions and modifications of the list of variables relate to the subject "education".

New variables:

- year of naturalisation;
- former citizenship;
- year of arrival and naturalisation and former citizenship of the parents;
- field of highest vocational qualification;
- for persons with a university degree (or *Fachhochschule* diploma): additional vocational qualification besides the university degree/*Fachhochschule* diploma and kind of vocational qualification;
- field of the most recent training programme attended for the purpose of continuing general education or advanced training;
- length of participation in training programmes for continuing general education or advanced training during the past 12 months.

Deleted variables:

- year of marriage;
- current attendance of kindergarten, day nursery or day centre;
- usual and actual hours worked per week, in terms of days;
- rent relief, reduction or cessation of rent;
- preventive health care;
- branch of pension insurance;
- need for long-term nursing care, long-term nursing care insurance;
- change of establishment.

Apart from these content-related modifications, the new Microcensus Law has also introduced a number of significant methodological changes. In contrast to the law applicable until 2004, the new Microcensus Law does not provide for sub-samples. A 1%-sampling fraction of the population has generally been defined for national variables.

A fundamental modification has however been made in the survey design of the microcensus. Whereas the last holiday-free week of April usually was the reference week for the microcensuses taken in the past, the reference weeks are now spread evenly over the whole of the year. This means that the former stock-taking in a fixed reference week in April of each year (snap-shot data relating to the end of April) is replaced by annual average results. The introduction of such a continuous survey which collects data for a reference week moving through the year makes it possible to present not only annual average results but also average quarterly data. This offers a number of advantages as compared to the former survey concept:

- improved timeliness due to the shorter time-lag between the reference week and the presentation of results;
- better quality due to the shorter time-lag between the interview and the reference week;
- recording of average results for quarters and the year instead of snap-shot results for the end of April;
- smaller team of qualified interviewers.

To achieve these goals, the method of data collection has mostly changed from paper-and-pencil interviews to Laptops which enable the interviewers to transmit the data electronically to the statistical offices of the Länder. Using Laptops does not only render a rapid transmission of the data possible but also speeds up a substantial part of the necessary quality checks because of an integrated plausibility check. Consequently, valid data become available at an early date.

This improvement in timeliness also allows to discuss and test further steps of work that are aimed at providing the most up-to-date results possible. At the time being, the Federal Statistical Office and the statistical offices of the Länder are examining whether, and from what date, monthly labour market data may be published. The goal is to provide at the end of each month internationally comparable labour market data that are based on results for the previous month. At present, efforts are being made to publish such results from mid-2006 onwards.

Stefan Gruber, tel: +49 (0) 611 / 75 87 06, e-mail: stefan.gruber@destatis.de

Methods of federal statistics – Further development

Up-to-date employment figures in the context of the new ILO labour market statistics

Background

The labour market is at the centre of public interest. Consequently, there is a great demand for current data on labour market trends. In addition to the economic and socio-political dimensions, international comparison is also coming to the fore in the wake of Europeanization and globalisation.

At the beginning of 2005, the Federal Statistical Office introduced a new set of monthly labour market statistics in Germany in line with the standards of the International Labour Organization (ILO) which supplements traditional labour market reporting by the Federal Employment Agency. As part of ILO labour market statistics, internationally comparable monthly employment and unemployment figures are published about 30 days after the end of the reporting month. Unemployment figures are determined on the basis of the monthly telephone survey on the ILO activity status (ILO telephone survey). As soon as first results are available from the continuous microcensus it will be checked whether the microcensus meets the quality requirements and publication deadlines of monthly ILO labour market statistics. On the basis of these checks it will be decided which source is going to form the basis of short-term and internationally comparable labour market statistics from mid-2006.

Employment data for ILO labour market statistics are provided by employment accounts which are integrated into national accounting at the Federal Statistical Office. So far, monthly results of employment accounts have been available roughly 70 days after the end of the reporting month. For the purpose of integration into ILO labour market statistics, employment accounts had to be developed further methodologically with the aim of providing monthly employment figures more rapidly.

Employment accounts calculation model

The number of employed persons in national accounts is obtained with the help of special calculations on the basis of all sources of employment statistics available at the time of calculation, especially by converting values for reference days to corresponding averages for periods of time, and by supplementing missing parts and eliminating double counting. A total of 48 sets of statistics obtained via different reporting channels are integrated into employment accounts at the present time. Apart from monthly, quarterly and yearly statistics for individual economic sectors, major sources of employment statistics include in particular the Federal Employment Agency's statistics of employees subject to social insurance and marginal part-time workers, the monthly ILO telephone survey, data from the statistics on public service personnel, microcensus results and other data reported by individual institutions (e.g. monthly reports from the Federal Ministry of Defence on the number of soldiers). Additionally, the consistency with other results from national accounts and with labour market and demographic reporting is checked continuously.

As the basic data required for employment accounts accrue only successively in the course of time, data gaps at the current end are filled by estimates. As time passes, the completeness and accuracy of the basic data for a reporting period in the past increase as does the accuracy of the estimates. It is therefore necessary to adjust the results of employment accounts continuously to the latest state of knowledge.

New concept for the calculation method from the 2005 revision

In addition to the continuous adjustments, large revisions of national accounts are carried out at intervals of several years – the latest in April 2005. In view of the introduction of the ILO labour market statistics, the revision of employment figures was brought forward to the beginning of the year. For that purpose, all sources of employment statistics used until then were checked as to their quality, completeness and accuracy over time, new basic statistics were integrated into the calculation model, and new findings resulting from methodologically improved statistics were considered where these could not or not entirely be included into the former calculations. Moreover, the calculation model was to be developed further methodologically in a way which made it possible to improve the timeliness of the monthly employment results at the current end as intended.

The following further developments, in particular, have helped to attain the goal of providing up-to-date results:

- ◆ Improvement of the data basis for monthly employment calculations at the current end using the results of the monthly ILO telephone survey.
- ◆ Increased depth of calculation by employees' status in occupation. Permanent monitoring of the above categories providing for more differentiation than the former breakdown makes it possible to analyse with more accuracy types of gainful activity changing over time and marginal areas of the labour market. This is of specific importance against the backdrop of the Hartz reforms and the expansion and emergence of new subsidised forms of employment (mini jobs, second jobs, me plcs, etc.).
- ◆ Extended and intensified use of mathematical statistical methods in employment accounts – especially models of time series analysis (e.g. ARIMA forecasts) – to close gaps still existing in the data material and to validate the estimation results.

The first provisional results of monthly employment accounts published some 70 days after the end of the reference month deviated about 0.3 percentage points (average of several years) from the final result available after three years. In view of the further developments realised in the course of the revision of national accounts, there is good reason to expect that this degree of accuracy may be attained also with the shortened time lag which applies to the labour estimation results for the overall economy published after 30 days already as part of ILO labour market statistics.

For further information on the ILO labour market statistics and the revision of national accounts please refer to:

http://www.destatis.de/dt_erheb/arbeitsmarkt/am_start.htm

http://www.destatis.de/basis/d/vgr/vgrrevision_ueb.php

Contacts:

Stephan Lüken, tel: (+49-611) 75 20 16, e-mail: stephan.lueken@destatis.de

Thomas Wende, tel: (+49-611) 75 42 31, e-mail: thomas.wende@destatis.de

Sigrid Fritsch, tel: (+49-611) 75 20 54, e-mail: sigrid.fritsch@destatis.de

Possibilities of statistical confidentiality protection in complex analyses of official microdata performed in research data centres

Introduction

The research data centres (RDCs) of the Federal Statistical Office and the statistical offices of the Länder that have been set up over the last few years offer various possibilities to scientists to analyse official microdata. In order to ensure the statistical confidentiality required by law without reducing the quality of the analysis results to the extent that currently is often required when producing de facto anonymised microdata – so-called Scientific Use Files (SUF) –, the Federal Statistical Office has been developing new confidentiality protection methods since 2003. Similar to the traditional confidentiality procedures for tables, they start with the analysis results rather than the microdata. The jackknife method of confidentiality protection described here promises both better data security and better accuracy of results than achieved with the SUF available today.

The problem

If we intend to publish results of statistical analyses of confidential microdata, we want to ensure that it is impossible for a potential data intruder to derive information on an individual statistical unit (person, household, enterprise) that would be new and useful for him, even if he had comprehensive additional knowledge. If, for instance, we published the exact mean values, standard deviations and the correlation coefficient of total turnover and development expenditure for four enterprises, each of those enterprises could use that information to calculate the development expenditure of any of the other enterprises whose total turnover it knows (it would just have to solve eight equations for eight variables). That example shows that the traditional rules of table confidentiality – according to which only results for groups of less than three individual cases or with dominant individual values are problematic – are insufficient where the analyses are more complex than just the counting of frequencies or totals.

Currently the most frequent approach to solving the problem is to apply various modifications to the microdata (e.g. omitting or exchanging variables or reducing their level of detail, drawing samples, etc.) and thus to render them “de facto anonymised” so that they can be provided to scientists while protecting the individual cases contained in them against “deanonymisation”. However, producing such SUFs and checking them by simulated deanonymisation attempts involve considerable manual efforts and some remaining uncertainty regarding the protective effect of the measures taken. Also, such data provided to scientists often have only limited analytical potential.

Jackknife method of confidentiality protection

A compromise between the result-based approach of traditional table confidentiality and the data-based approach of anonymisation is the jackknife method currently developed at the Federal Statistical Office. The basic idea here is to slightly reduce the accuracy when releasing the analysis result requested by the researcher – but only to the extent required to prevent possible conclusions being drawn with regard to individual underlying data. The result thus released will then not allow to distinguish a possibly sought individual value from a replacement value drawn at random, even if comprehensive additional knowledge is available.

The exact degree of inaccuracy required here for the result to be released depends on how much the analysis result would change if an individual underlying value were exchanged for its replacement value selected at random. This is directly connected with the “influence function” known from the theory of robust estimation and can be determined in various ways, depending on the type of analysis desired. If the influence function is bounded (e.g. for robust estimators such as the median, the trimmed mean or a rank correlation coefficient), the maximum inaccuracy required can directly be calculated from that bound. For less robust analysis results (such as the arithmetic mean, the product-moment correlation or an OLS regression coefficient),

sufficient inaccuracy can instead be determined by actually drawing replacement values or by approximating that influence.

Accuracy of results

The order of magnitude of the relative error created in addition by the jackknife confidentiality method is generally asymptotically proportional to $1/n$, with n being the number of individual cases included in the analysis. This can directly be checked for many analysis results.

In the following **examples**, f is the analysis result and δ is its maximum change caused by replacing one of the individual cases included. The error caused in addition by the jackknife confidentiality method would then not be more than 5δ :

Rank order statistics (esp. quantile estimators): $f = x_{(k)}$, $|\delta| \leq \max(x_{(k)} - x_{(k-1)}, x_{(k+1)} - x_{(k)})$.

k-fold trimmed mean: $|\delta| \leq \max(x_{(n-k+1)} - x_{(k+1)}, x_{(n-k)} - x_{(k)})/n$.

Kendall's and Spearman's rank correlations: $|\delta| \leq 6/(n-3)$ and $|\delta| \leq 6/(n-1)$.

Test statistics of the sign test: $f = (n^+ - n^-)/2$ (which is of magnitude n), $|\delta| \leq 1$.

Wilcoxon's two-sample test: $f = \sum \{\text{rank}(x_i) : x_i \in S_1\}$ (magnitude n^2), $|\delta| \leq \max(n_1, n_2)$.

Kolmogorov-Smirnov goodness-of-fit test: $f = \sup_x |F_n(x) - F(x)|$, $|\delta| \leq 1/n$.

Entropy: $f = \sum_i \frac{n_i}{n} \log_2 \frac{n_i}{n}$, $|\delta| \leq (\log_2 n + (n-1) \log_2 n/(n-1))/n \leq 2 \log_2 n/n$.

If the individual material is a sample from a large population, then the relative standard error, which is inevitable even without applying confidentiality methods, is generally asymptotically proportional to $1/\sqrt{n}$, that is with a rising sample size it decreases much slower than $1/n$. Therefore, for sufficiently large samples, the jackknife confidentiality method leads only to a minor increase of the error. With traditional anonymisation methods, however, the additional error has at least the same order of magnitude as the standard error, so that better results are expected here of the jackknife confidentiality method.

Situation and outlook

The good quality of analysis results expected according to theory after applying that new confidentiality method is currently checked at the Federal Statistical Office on the basis of the results of the project "De facto anonymisation of business micro-data", using realistic application examples, and will then be compared with the analysis potential of traditional SUFs.

For that purpose, jackknife confidentiality software has prototypically been implemented for most of the traditional univariate and bivariate statistics and for a least-squares method to adjust (non-)linear models.

In the medium term, the jackknife method of confidentiality protection may make it easier for the staff of research data centres to provide high-quality results of complex analyses to their scientific customers without having to perform comprehensive manual checks.

Dr. Jobst Heitzig, tel: +49 (0) 611/75 43 40, e-mail: jobst.heitzig@destatis.de

New basic statistics integrated in 2005 revision of national accounts

In the course of a year, the current results of national accounting are revised regularly for each new quarterly release date. Every year in August, the annual results are checked, and changed where necessary, for a back period of up to four years on the basis of new basic data that have become available in the meantime. Generally, national accounting data are never final in the sense of “unchangeable” because comprehensive revisions of the results are performed at five to ten-year intervals. As new surveys were included in the 2005 revision of national accounts, which was finished on 28 April 2005, the previous results were changed in part considerably. However, definitional changes occurred to a much smaller extent than in the previous national accounts revision in 1999 (introduction of the European System of Accounts 1995).

The main new basic statistics that were integrated for the first time into the national accounting results in the 2005 revision are the service statistics for transport, storage and communication as well as business activities, structural surveys for enterprises with 1-19 employees in mining, manufacturing and construction, the statistics on long-term nursing care, and hedonic price indices. Another factor playing a major role in the revision was new reference years used in existing basic statistics such as the 1997 survey of the range of commodities in the sale of motor vehicles, wholesale and retail trade, the 2000 labour cost survey, the 2000 statistics of remunerations of the Federal Employment Agency, and the 1998 survey of material and commodities received.

As regards the production approach to calculating the gross domestic product, the structural survey for businesses of manufacturing and mining with 1 to 19 employees was newly introduced in the area of mining (section C of the 2003 national Classification of Economic Activities - WZ) and manufacturing (WZ section D). What is used from that source is the following variables: Active persons, total turnover, material input, costs of services received, staff costs and gross investments.

In the service sector, the statistics on long-term nursing care provided information needed to determine the output of that part of social security for the first time for reference year 1999. As the questions on intermediate consumption had been deleted from the original draft law, such information could not be obtained from the statistics on long-term nursing care. However, the statistics on long-term nursing care is a central source of information for output at current and constant prices. The results of that statistics are a solid data basis for a model approach to direct volume measurement in the social security area (sub-area of long-term care benefits). Basically, volume measurement was performed on the basis of beneficiaries, broken down by out-patient and in-patient services and by nursing care levels, with weighting also based on nursing care charges. In addition, the model allows differentiation by type of responsible institution, that is private, independent and non-profit, public. While the data on in-patient nursing care were directly included in the calculations, the data on out-patient nursing care were just a lower limit. After co-ordination with household final consumption expenditure, that value was raised to the total of relevant material purchases of general government. For the 2005 revision, the newly introduced annual service statistics for transport, storage and communication (WZ section I) and the business activities (WZ section K) provided for the first time complete structural information to determine in particular the ratios of intermediate consumption to output and the input of goods for resale. The level data of the service statistics were not directly used for the revision, although they were applied for checking against other data sources.

As regards the uses side of the gross domestic product, there were also changes in the basic statistics that had a considerable impact on calculating household final consumption expenditure. This refers especially to the structure of consumption, that is the purposes, whereas the level of household final consumption expenditure was less affected.

In 2002, the 1997 survey of the range of commodities in the sale of motor vehicles, wholesale and retail trade was published with trade turnovers broken down by over 70 commodity groups.

The purpose of the survey was to recalculate the commodity structure in trade. For the calculation of household final consumption expenditure, that new commodity structure in trade provided new information on the distribution over specific purposes. Based on the European structural surveys (regulation concerning structural business statistics), the annual surveys of the sale of motor vehicles, wholesale and retail trade have involved since 1999 a breakdown of trade turnovers by selected commodity groups. Thus, the current revision allows for the first time to perform an annual updating of the consumption structure in trade. As a consequence, it will be possible in the future to base the breakdown of household final consumption expenditure by purposes on a recent survey.

Due to the new concept of household budget surveys, the three household types used in the past for continuous household budget surveys have been replaced from 1999 by a representative survey covering all households. This has provided especially the possibility to annually check the results of household surveys against the results by supply areas of national accounts. In some supply areas, the continuous household budget surveys – through the consumption rates derived from them – have a direct impact on the level of final consumption expenditure, so that they serve not only the purpose of data editing by means of a household survey.

For fixed capital formation in construction, the model of estimating repairs in the building industry proper has been revised, which currently is based on the stock of buildings and assumptions on repair periods. It is planned to change over to a model based on repair shares in the turnover of individual classes of economic activity in analogy to the procedure currently followed for the finishing trade.

What has also been introduced with the 2005 revision within the area of other fixed capital formation is that the service statistics in the field of transport, storage and communication (WZ section I) and in business activities (WZ section K) are also used as a data basis for fixed capital formation in purchased software in those areas. According to current planning, the variable “fixed capital formation in purchased software” will be covered there annually, though only for enterprises with a turnover of over EUR 250 000. The variable “inventories” is also contained in the service statistics. Data are requested on initial and final stocks, which can be used to calculate changes in inventories.

The most important data-related change in the uses approach refers to economic branch 71 “Renting of machinery and equipment without operator and of personal and household goods”. The importance of that branch has so far been underestimated because what is mainly included in the calculations is producer-*independent* leasing as shown in the leasing investment test of the ifo Institute for Economic Research. As many enterprises doing producer-*dependent* leasing are (or have become) legally independent, although they are connected with the producer of the leased goods, they are not (or no longer) covered under the industry of the producer but under “Renting of machinery and equipment without operator and of personal and household goods”. In addition, new and model-based supplementary estimation is performed for enterprises operating in short-term renting of machinery and equipment. Due to those corrections, branch 71 will gain much in importance.

Even before the 2005 revision, there was a hedonic price index for PCs in the consumer price index. In national accounting, it was also applied to relevant goods of machinery and equipment, imports and exports to make the national accounting system consistent on the production and uses sides. Those price series have now been taken back to 1991 in national accounts, taking account of international developments. Also, additional hedonic price indices for second-hand motor vehicles, electronic household appliances and consumer electronics have been integrated.

Stefan Hauf, tel: +49 (0) 611/75 29 97, e-mail: stefan.hauf@destatis.de

Estimating hazardous goods transport

Spectacular national and international traffic accidents involving hazardous goods make the general public aware of the risks of hazardous goods transports and draw the public attention to statistical data on such transports. In official transport statistics of Germany, information on the transport of hazardous goods by hazard classes is available only for the mode of transport “road”, and only for domestic lorries with a load capacity of over 3.5 tonnes. For the other modes of transport, hazardous goods transports cannot directly be taken from existing statistics. Therefore, the Federal Statistical Office, commissioned by the Federal Ministry of Transport, Building and Housing, performed a research project to determine the volume of hazardous goods transport by rail, waterway and road. By linking various statistics – with the method applied here, this is primarily transport and foreign trade statistics –, it is possible to obtain such data without placing additional response burdens on businesses.

Methodological bases

In German transport statistics, goods transport is covered in a breakdown by the 175 goods groups of the “Goods Nomenclature for Transport Statistics (NST/R)”, which is the standard goods classification for transport. Except for freight transport by road, the hazardous quality of goods is not primarily covered. The available breakdown by 175 goods groups is not detailed enough to be used as the sole tool to derive information on the transport of hazardous goods. However, it contains goods groups that can directly and completely be allocated to a specific hazard class. This refers in particular to transport goods of hazard class 3 (flammable liquids). A considerable share of the hazardous goods volume can be determined direct through those 13 goods groups. There are, however, other goods groups that include shares of hazardous goods.

To further determine the volume of hazardous goods, an estimation method was developed by means of foreign trade statistics, which has a much more detailed breakdown of goods than transport statistics as the Commodity Classification for Foreign Trade Statistics comprises over 10 000 different commodity codes. Through a conversion table between the Commodity Classification for Foreign Trade Statistics and the Goods Nomenclature for Transport Statistics, the two statistics are compatible. All commodity codes that are entirely hazardous goods or contain relevant shares are examined more closely. Previous estimates of the Federal Statistical Office were included in the estimation method as a basic frame.

Estimation procedure

The actual estimation procedure can roughly be described by five or seven steps:

1. The classifications of transport statistics and foreign trade statistics (goods nomenclature, commodity classification) were taken to produce the steering file AWAG ¹⁾, which contains the allocation of hazard classes and shares for each commodity code and the corresponding goods groups of the NST/R.
2. That steering file was multiplied by the absolute figures of foreign trade statistics. From the absolute data obtained, hazardous goods structures were calculated for each mode of transport and for each type of movement (inland transport, cross-border dispatch, cross-border arrival, transit traffic).
3. Supplementary hazardous goods structures were determined on the basis of waste statistics and other additional information from transport statistics for goods groups that cannot clearly be represented through foreign trade statistics.

¹⁾ Allocation of commodity codes of foreign trade statistics to hazard classes and matching with goods groups of transport statistics

4. The hazardous goods structures from steps 2 and 3 were combined to form an overall hazardous goods structure.
5. The overall hazardous goods structure was then multiplied by the absolute data of transport statistics, again with a breakdown by mode of transport and main type of movement. For inland waterways transport, maritime transport and freight transport by road, the results of hazardous goods estimation were available already at that point in tonnes and tonne-kilometres.
6. For railways, container transports were additionally included because the contents of containers are unknown in about 50% of the cases and, consequently, are not yet entirely contained in the results.
7. What was available as a results now is the total hazardous goods volume for each goods group of the NST/R. Relevant results were calculated both for the transport volume (in tonnes) and for transport performance in tonne-kilometres.

As the AWAG was set up also for the 24 goods groups available at the European level, and because information in the relevant European format is also available through foreign trade statistics (CN code), it would be possible with reasonable efforts – though with lower accuracy – to apply the estimation method also in the European context.

Structure of results

Without applying the estimation procedure, the estimation for reference year 2002 included a hazardous goods share of 9% for rail, referring to the total transport volume for the goods groups that are 100% hazardous goods. Another 8% were identified by the estimation procedure. The hazardous goods share in total transport thus was 17%. For road transport (only domestic vehicles from a load capacity of 3.5 tonnes), the hazardous goods share was 5%. Of that percentage, 3% were obtained directly and 2% through the estimation procedure.

In inland waterways transport, 17% of the total transport volume was hazardous goods that were directly obtained. Another 5% were added to that share through the estimation procedure, which resulted in a total hazardous goods share of 22%. For sea-going vessels, every 4th tonne could directly be identified as hazardous goods and another 3% were estimated, so that the overall share here was 28%.

Those different shares of estimation are due to different structures of freight transported in the various modes of transport. While hazardous goods transports on ships were mainly bulk goods (e.g. mineral oil, mineral oil products), hazardous goods transport by rail and road showed a larger variety of goods. What could directly be derived was hazardous goods of class 3. The importance of the estimation procedure lies in the calculation of total volumes and shares for other hazard classes.

Future development

For the future, it is planned to permanently implement the hazardous goods estimation at the Federal Statistical Office. It is also envisaged to perform special evaluations providing relevant data also for the Land level. For freight transport by road, more comprehensive results are expected for the future, where vehicles of the new EU countries (e.g. Poland, Czech Republic) are included, too.

Further information

Further information on the methodology and the results of the estimation is contained in the final report (Federal Statistical Office: "Gefahrguttransporte 2001/02", Wiesbaden 2004), which is available free of charge from the Statistics Shop of the Federal Statistical Office

(www.destatis.de) or direct by e-mail from verkehr@destatis.de.

Kristina Walter, tel: +49 (0) 611/75 26 61, e-mail: kristina.walter@destatis.de

Publications

“Demographische Standards” (Demographic Standards), edition 2004

“Demographische Standards” contains recommendations whose purpose is to standardise socio-structural survey variables in interviews and surveys and thus to achieve better comparability. “Demographische Standards” goes back to an initiative of a common working group, consisting of representatives of the Federal Statistical Office, the Working Party of Social Science Institutes and the Association of German Market and Social Research Institutes. Following the editions of 1995 and 1999, the new 2004 edition of “Demographische Standards” is now available. It contains among other things: Selection of survey variables, demographic standards, demographic standards for telephone surveys, handling, demographic variables in an international comparison, comparison between survey variables of the demographic standards and of the microcensus, data basis for the standards from the microcensus 2003.

“Demographische Standards”, edition 2004 is available for free download from the web site of the Federal Statistical Office at: <http://www.destatis.de/allg/d/veroe/demograph.htm>

Events

Workshop: Pure price index versus cost-of-living index – Goals, concepts, problems of measurement

On 28 and 29 October 2004, the Federal Statistical Office of Germany, in co-operation with Statistics Austria - the statistical office of Austria -, and the Swiss Federal Statistical Office, held a workshop on the premises of Statistics Austria in Vienna which dealt with common features of, and differences between pure inflation measures and compensation measures.

Meetings of German-speaking price statisticians are held at irregular intervals. The goal is to discuss methods and their applications between the scientific community and those applying the methods, and to exchange experience between the statistical offices. Participants in the meetings are scientists of universities in different countries, national central banks as users of price statistics and statisticians of the statistical offices of various countries, that is, apart from the above-mentioned statistical offices, for instance colleagues from the Netherlands, Sweden and Poland.

The workshop was opened by Dr. Ewald Kutzenberger, Director-General of Statistics Austria. The event was subdivided into three blocks (methodical, empirical, and practical block). The individual blocks were moderated by those responsible for price statistics in the three organising countries, that is Mr. Josef Auer for Statistics Austria, Mr. Jürgen Chlumsky for the Federal Statistical Office of Germany, and Mr. Dieter Koch for the Swiss Federal Statistical Office.

In the first, methodical block, the two directions of inflation and compensation measures were examined with regard to the goals and concepts of consumer price indices. Prof. Dr. Peter von der Lippe of Essen university presented a paper on “Operationalisation of the concepts of ‘pure price comparison’ and ‘true cost of living’”. Dr. Ludwig von Auer of Magdeburg university presented “Comments on superlative indices and other dogmas” and Mr. Hans-Albert Leifer of Deutsche Bundesbank illustrated common features of, and differences between various indices in his paper on “The pairs of terms ‘inflation index/compensation index’ and ‘consumer price index/cost-of-living index’”. Mr. Paul Haschka from Statistics Austria explained to the audience the discussion currently held at EU level on purposes by “The ‘Basic purpose’ approach in the various index concepts – Importance and implementation”. The methodical block was completed by a paper of Prof. Dr. Schips from the Swiss Federal Institute of Technology Zurich on “Boskin considered today”.

In the second, empirical block, problems of measurement of consumer price indices were examined more closely. Alexandra Beisteiner from Statistics Austria explained the “price measurement for books, CDs, TV sets and refrigerators” in Austrian practice, while Prof. Dr. Wolfgang Brachinger of Fribourg university dealt with the issue of “Did the euro bring drastic price increases? – Perceived versus measured price increase”. Mr. Günther Elbel from the Federal Statistical Office of Germany talked about the “Impact of the current health care reform in Germany on price indices of various purposes”, and Dr. Stefan Linz from the Federal Statistical Office of Germany presented a paper on “What could a price index for computers look like in a cost-of-living index?”. Finally Mr. Dieter Koch, representing his team colleagues Rolf Boesch and Stefan Roethlisberger, presented the “Experience report on chain index, basis aggregation, price indices by population groups, estimating superior indices, index of health insurance contributions”.

In the last block, experience from the individual countries was exchanged. At the same time, working groups held meetings on the following issues: “Technical household appliances” chaired by Ms. Ute Egner and Mr. Günther Elbel from the Federal Statistical Office of Germany, “Clothing” chaired by Ms. Patricia Klees-Friedrich, also from the Federal Statistical Office of Germany, “Collection/weighting by regions and distribution channels” chaired by Mr. Dieter Koch from the Swiss Federal Statistical Office and “Hedonic regression” chaired by Prof. Dr. Wolfgang Brachinger of Fribourg university and Dr. Stefan Linz from the Federal Statistical Office of Germany.

All papers presented at the workshop are available for free download from the web site of Statistics Austria: http://www.statistik-austria.at/fachbereich_02/vpi_workshop.shtml

Patricia Klees-Friedrich, tel: +49 (0) 611/75 32 13, e-mail: patricia.klees-friedrich@destatis.de

2005 revision of national accounts – Information meeting on 19 May 2005

On 28 April 2005, the results of this year’s large-scale revision of national accounts of the Federal Republic of Germany were published for the first time. Such large-scale revisions are performed about every five to ten years (last time in 1999); they are used by the Federal Statistical Office to fundamentally revise the results and methods of national accounts according to international conventions.

To make it easier for users to follow the changeover to the revised results and new methods, the Federal Statistical Office held an information meeting on the 2005 revision of national accounts on 19 May 2005. The target group of the meeting was users who further process the national accounts data in order to perform calculations or forecasts of their own. The invitation to Wiesbaden was accepted by many guests, including representatives of economic research institutes, ministries, banks, and associations. Staff members of Department III of the Federal Statistical Office were also present in the audience and were available as experts to answer any questions on specific issues.

After a brief introduction by Mr. Strohm, Head of Department III, Mr. Hartmann presented “Selected results of the revision of national accounts in 2005”. Many questions raised in the following discussion were answered by the papers presented afterwards. First, Mr. Eichmann explained the recalculation and allocation of FISIM (financial intermediation services indirectly measured) to the various users (borrowers and depositors).

After the lunch break, three short papers were presented on the second major change implemented in the 2005 revision, that is the changeover of price adjustment to previous year’s prices. In his paper on “Introducing the previous year’s price basis in national accounts (chain

index)”, Dr. R ath informed about the background, the detailed procedure as well as the benefits and shortcomings of the new method where the national accounts data are no longer deflated at prices of a fixed base year but always at prices of the preceding year with subsequent chain-linking. Then Mr. Kirchner of Deutsche Bundesbank drew the audience’s attention more specifically to quarterly aspects. In his paper on the “Impact of changing the real data of quarterly national accounts to chain indices on the current analysis of the economic development in Germany”, Mr. Kirchner illustrated the theoretical and practical implications of the methodological change. Finally, Mr. Mayer informed about further “New deflation methods” in national accounting, including the consistent introduction of hedonic price indices and the direct volume measurement according to the output method in the educational sector.

The papers were followed by a lively discussion which provided answers to many questions posed by the participating users. There were also some comments on the range of revised national accounting data offered.

For further information on the changes in concepts, methods and basic data as well as their impact on the revised results please refer to the detailed paper on the 2005 revision of national accounts published in *Wirtschaft und Statistik* (Economy and Statistics), issue 5/2005 and to the relevant national accounts page on the web site of the Federal Statistical Office (www.destatis.de).

Tanja G tzke, tel: +49 (0) 611/75 29 07, e-mail: tanja.goetzke@destatis.de