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The catchword

Methods of federal statistics - Further development

Events

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The catchword

Adjusting the production index for the main construction industry

The production index measures the short-term development of the output of the industry in Germany. This is done by rolling forward the gross value added at factor cost of the relevant branches as measured in base year 2010, using indicators of the monthly development of the output. As regards the main construction industry (building construction and civil engineering, excluding building completion work), the roll-forward indicators applied are the hours worked in this sector. This article describes two one-time adjustments of the data collection methods regarding the production index for the main construction industry, which have an impact on the results.

Annual adjustments of the group of respondents shifted to the beginning of the year

The organisational-technical guidelines specify that the statistical offices of the Länder include in the survey businesses which are new in the market or whose number of persons employed has increased to beyond the cut-off threshold of 20, and that they do so at the beginning of the year. Before 2015, the adjustment of the group of respondents had been done in October of any year. From 2015 to 2017, it was gradually shifted to the beginning of the year. The impact of adjusting the group of respondents has been particularly strong this year. The fact that the number of hours worked increases especially in February is due to methodology. However, the extent of the increase reflects the currently buoyant construction activity. Generally, adjusting the group of respondents does not involve any revisions as businesses newly included are not surveyed retrospectively and the effects of the reporting group adjustment cannot be anticipated through forecasts. Depending on the short-term economic conditions, the effect may occur at the beginning of the year also in the future.

Grossing the figures to all establishments in main construction industry discontinued

In the production index for the main construction industry, the value added measured in base year 2010 is rolled forward using an indicator that reflects the hours worked in all establishments of the main construction industry. Monthly data on hours worked are available for establishments with 20 or more persons employed, whereas hours worked in all establishments are collected only once a year in an additional complete count conducted in June. Therefore, to calculate the roll-forward indicator, the development of hours worked in establishments with 20 or more persons employed ("hoursworked20+") has so far been multiplied by a grossing factor that takes account of the annual development of hours worked in all establishments. The grossing factor has been recalculated once a year, which has led to regular yearly revisions of the production index.

Studies have revealed that the reflection of the development of output by hoursworked20+ alone is not worse than when applying the roll-forward indicator with a grossing factor as used so far. In addition, when rolling the figures forward by means of hoursworked20+, the regular annual revision caused by the grossing factor is no longer required. This is why it has been decided that, for the value added in the main construction industry, only hoursworked20+ will be used in the future for the production index. However, this modification involves a one-time revision of the production index that will go further back into the past.

The modification will be completed by the annual correction of the production index for the industry. The results will be published on 9 May 2017 in the press release on reference month March 2017. The production index for the main construction industry will then be replaced by the new time series retrospectively from reference month January 2010. The modification will lead to one-time revisions for individual months, which will in part be visible in the results of the overall production index (see below).

Extent of the one-time revisions caused by discontinuing the grossing-up procedure

The charts below show the results, adjusted by X-12-ARIMA for working-day and seasonal variations, with and without revision.1 The results regarding the revision differences refer to the data as at February 2016. When the data on March 2017 have become available, those results may slightly change.

Figure (1): Seasonally adjusted index results, comparison between current and revised index

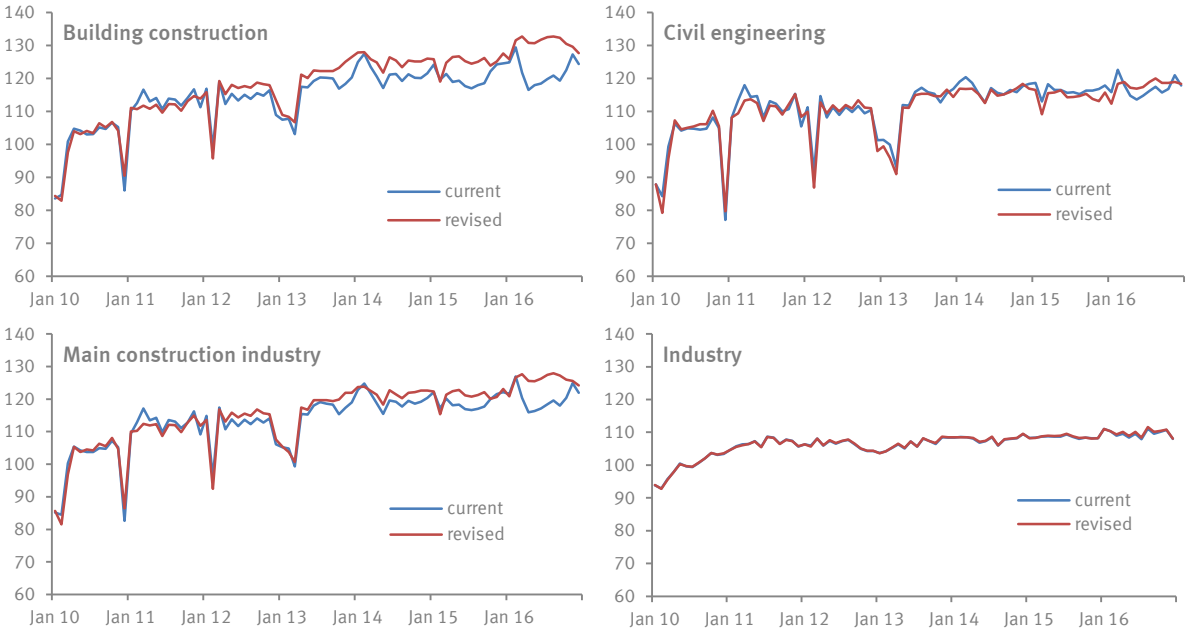


Figure (2) below shows the seasonally adjusted month-on-month change rates and the revision differences that are caused by changing over from the current roll-forward procedure to the roll-forward procedure involving only hoursworked20+. The revision differences (percentage points) were calculated as a seasonally adjusted month-on-month change rate for the revised result less the seasonally adjusted month-on-month change rate for the result obtained with the old calculation method.

In building construction, the absolute level of the revision differences can be up to just under 7 percentage points. It should be noted, however, that seasonally adjusted month-on-month change rates of over 28 percent have been observed here. In half of the cases, the absolute revision differences are less than one percentage point. In civil engineering, the level of the revision differences is similar, whereas the change rates are even higher.

In the industry, there are three months with revision differences of 0.3 percentage points and one month with 0.4 percentage points. In just under 40% of the months, there are no revision differences and in another 40%, the revision differences are 0.1 percentage points.

A change in the algebraic sign of the month-on-month change rate, caused by the revision, is observed in 17 cases in building construction and in 16 cases in civil engineering, whereas no such case was observed in the industry.

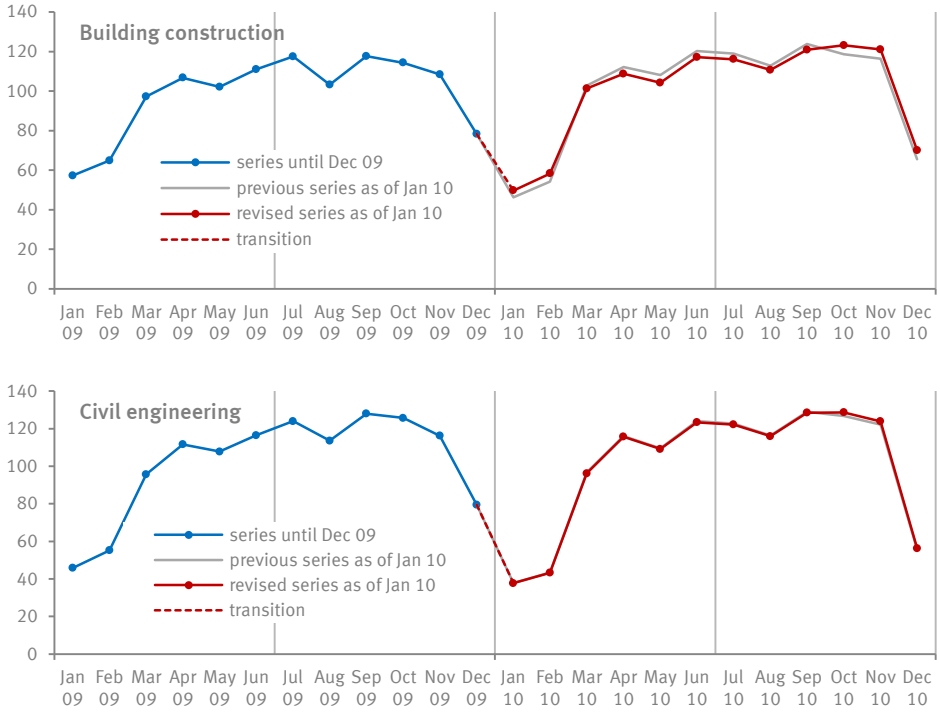
[1] For the adjustment of the revised results, the seasonal adjustment specifications have been modified.

Figure (2): Seasonally adjusted month-on-month change rates of the production index, current/revised, and revision differences

Linking the results as from January 2010 with earlier results

Revising the results as from January 2010 requires linking the new time series on building construction and civil engineering with earlier results from January 1991 to December 2009. To avoid revisions going even further back, the revised results as from January 2010 are connected directly (without chain-linking) to the previous series up to 2010. For the period from January 1991 to December 2009, the old results remain unchanged, while as from January 2010, the old results are replaced by revised figures (rolled forward based on hoursworked20+).

Figure (3): Index development after linkage with earlier results (unadjusted results)



As the series up to December 2009 is now connected with the revised series as from January 2010, the month-on-month change rate for January 2010 regarding building construction has changed from -40.9% to -36.5%. In civil engineering, the month-on-month change rate for January 2010 has not changed as the revised result for January 2010 does not differ from the previous result.

If, in building construction, the result for December 2009 were also calculated on the basis of hoursworked20+, a month-on-month change rate of -38.4% would be obtained for January 2010. This means that a slightly biased month-on-month change rate will now be shown for January 2010 in building construction (-36.5% instead of -38.5%). This inaccuracy has to be put up with to avoid a revision of the results of the production index (for all aggregates containing building construction) going further back than January 2010.

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Methods of federal statistics - Further development

Expert interviews in the context of reviewing the R&D coefficients

Background and goal of the survey

Due to the Humboldt principle of the unity of teaching and research, German institutions of higher education do not distinguish between resources for teaching and resources for research and development (R&D) as regards their basic financial and staff resources. However, official reports on research require data on research expenditure and research staff at higher education institutions. This is why, in the mid-1990s, the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany, the Federal Ministry of

Education and Research, the German Council of Science and Humanities, and the Federal Statistical Office developed a calculation method based on the separation of research funded from basic resources and externally funded research. Externally funded expenditure and externally funded staff are entirely classified under research. Expenditure on R&D and R&D staff funded by basic resources are calculated by means of R&D coefficients. For universities, colleges of education and colleges of theology, there is an empirical-normative method of calculating the R&D coefficients. Various assumptions and parameters regarding the time use of the academic and creative arts staff are included here. For universities of applied sciences and colleges of art, the R&D coefficients are not calculated through the empirical-normative method but were globally fixed in the mid-1990s. Since that time, the R&D coefficient for universities of applied sciences has been 5 percent, that for colleges of art 15 percent. It is assumed that 5 percent and 15 percent, respectively, of the expenditure funded from basic resources or of the staff funded from basic resources are spent on research. In these higher education institutions, too, externally funded expenditure and externally funded staff are entirely classified under research. The higher education statistics committee recommended at the end of 2014 that the calculation of the R&D coefficients should be reviewed. The Federal Ministry of Education and Research has commissioned a relevant project. The goal of the project is to allow assessment, adjustment and more exact calculation of the R&D coefficients on an empirical basis.

Survey design

The basic data available on research and development at universities of applied sciences and colleges of art are not sufficient for developing an empirical-normative calculation method like that used for universities. This is why it has been decided to conduct qualitative expert interviews for these types of higher education institutions. The goal of the interviews is to identify the relevant parameters for research and development in the context of teaching and administrative functions at such higher education institutions and to examine whether the global R&D coefficients used so far are still realistic. 24 expert interviews were conducted with directors and professors responsible for research at universities of applied sciences and colleges of art. The interviews were based on a structured guideline that had been tested and enhanced in a pretest in a test studio in Frankfurt. When selecting the persons, care was taken to achieve regional distribution, a balanced sex ratio and a wide range of higher education institutions, so that different perspectives could be included. The field work was done by the market and social research institute GIM (Gesellschaft für Innovative Marktforschung).

Theoretical concept and research logic

The project design and the analysis of the interviews are based on the grounded theory concept; this is a method of qualitative social research. According to Strauss and Corbin, the grounded theory is a method generating and testing concepts and their interrelationships. Hence,

"(…) the concepts out of which the theory is constructed are derived from data collected during the research process and not chosen prior *to beginning the research. It is this feature that grounds the theory and gives the methodology its name. (…) in grounded theory, research analysis and data collection are interrelated. After initial data are collected, the researcher analyzes that data, and the concepts derived from the analysis form the basis for the subsequent data collection. Data collection and analysis continue in an ongoing cycle throughout the research process." (Strauss/Corbin, 2015, p. 7).*

In the expert interviews, this research logic was implemented by analysis and data collection going hand in hand and by adjusting the guideline when new major research issues have come up or when specific research issues were considered as sufficiently settled. Analysis started already during data collection.

Benefit of the expert interviews for R&D coefficients

First analyses have shown that expert interviews are a suitable tool for reviewing the R&D coefficients, and especially for highlighting drivers and barriers for research activities. Based on

the drivers, barriers and assessments regarding research shares of professors, a rough calculation method can be developed and new R&D coefficients can be established. With this method, coefficients can be established only by type of higher education institution (universities of applied sciences and colleges of art). A more detailed breakdown by subject group or staff category cannot be achieved, but this was not intended anyway.

Based on the data material, the R&D coefficients are readjusted and the impact of the various drivers and barriers that can be represented through (official) statistics is assessed. Thus it will be possible to adjust the R&D coefficients for universities of applied sciences and colleges of art on the basis of a specific theory.

Reference

Corbin, Juliet / Strauss, Anselm: Basics of Qualitative Research, Techniques and Procedures for Developing Grounded Theory, Fourth Edition, 2015, p. 7.

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Energy statistics subject to methodological changes

Background and main purposes of energy statistics

Energy statistics, which are currently based on 16 individual surveys, provide statistical data on the production and use of electricity, gas and heat. Furthermore energy-related statistical data form the basis for calculating energy balances of the Federation and the Länder and meeting international data requirements. Fulfilling these tasks has become increasingly difficult in the past few years due to a large number of technological developments in the energy industry and to regulatory measures such as the unbundling of suppliers. The amended Energy Statistics Act (EnStatG), which entered into force in March 2017, provides the legal basis for energy statistics and is intended to close the existing data gaps. The increased data requirements have been taken into account especially regarding renewable energy sources, combined heat and power generation, and heat. The amended Energy Statistics Act will be taken as a basis for monthly surveys as of reference month January 2018. Due to the close interrelations between monthly and annual surveys, changes in the annual surveys will become effective not earlier than in 2019 (for reference year 2018).

Energy statistics subject to methodological changes

The amended Energy Statistics Act provides for a large number of structural and content-related changes. The new structural elements included in the Act comprise both authorisation to issue statutory instruments and compulsory use of administrative data. Authorisation to issue statutory instruments means that legislators will be enabled to respond to changes in the energy market more quickly and flexibly and to reflect new developments promptly by expanding existing or creating new surveys in future. At the same time, deleting survey variables that are no longer needed will become easier, too. If new variables are required, availability of the relevant information in the form of administrative data of other authorities must first be checked pursuant to the new Act. This also applies to the variables already included in the amended Energy Statistics Act. This approach is in harmony with a provision of the amended Federal Statistics Act which gives the use of administrative data priority over primary surveys.

The most important content-related changes in the Energy Statistics Act concern innovations in the heat industry and in the field of renewable energy sources. As far as the heat industry is concerned, the amended Act provides the basis for creating the most comprehensive source of statistical data on the production and distribution of heat. For the first time, for instance, data

will be collected on heat networks. The data situation in the field of renewable energy sources will significantly improve, mainly as a result of the considerably expanded monthly survey among operators of electricity supply grids. In future, these operators will be asked about the quantities of electricity fed into the grids in a breakdown by energy source used for electricity production. Regarding the plants feeding the grids, a differentiation will be made between electricity generation plants with a declared net capacity of more and of less than one megawatt. So official data will for the first time be available on quantities fed into grids by plants with a declared net electrical capacity of less than one megawatt. In addition, a new survey of the distribution of heating oils and aviation fuels was introduced for purposes of Länder energy balances, as the administrative data used so far are no longer available in a regional breakdown. Despite this new survey, the total of individual surveys declined from 16 to 15 because, at the same time, surveys were combined in the area of gas statistics.

Measures to reduce the response burden

To meet the data requirements, it has been necessary to expand the groups of respondents and include new variables in individual surveys. However, many activities were undertaken during the conceptual phase of the Energy Statistics Act in order to keep the additional burden on respondents as low as possible. These included, for instance, keeping a cut-off threshold in determining the groups of respondents and maintaining the frequencies of data collection. Furthermore, many variables were deleted in the process of amending the Act. For instance, the variables of operating consumption and receipt of energy sources were deleted in all surveys. The process of incorporating the variables listed in the Energy Statistics Act into the survey questionnaires has included further potential for reducing the response burden. Each time a variable was to be included pursuant to the amended Act, the question whether the data would have to be collected directly or could perhaps be calculated from other variables of the questionnaire was considered carefully. In addition, data for very complex variables, such as primary energy saving, are not collected directly. They are rather calculated from other data that are more easily available. As a result of using administrative data, which was described above, it will not be necessary to conduct two surveys provided for by the Energy Statistics Act. And finally, the statistical offices of the Federation and the Länder have undertaken great efforts to optimise the online forms for data collection in order to ensure, for instance, an optimum menu navigation and a logical structure of the variables included.

Summary

The Energy Statistics Act was amended in response to the liberalisation of markets and the transformation of the energy system. The modified or new surveys take into account producer-related changes, the increased use of renewable energy sources, the effects of unbundling and additional data requirements at the level of the European Union and of the Länder in Germany. Moreover, the amended Act ensures that the transformation of the energy system will be monitored and informative energy balances be compiled at the federal and Länder level in the future too.

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Modernisation in the context of the 2030 Agenda: statistics of development assistance

Since the 1960s, Germany has reported its public and private development finance to the OECD Development Assistance Committee (DAC). However, international reporting requirements have essentially remained almost the same since then although development finance has in fact changed considerably in the last few decades. User requirements with regard to the data have also changed.

With the target of attaining the Millennium Development Goals approaching in 2015, the world community had the chance to redefine the concept of development for the next 15 years, giving it a more global meaning. In September 2015 the United Nations adopted the 2030 Agenda for Sustainable Development, which came into force on 1 January 2016 and comprises a total of 17 ambitious Sustainable Development Goals (SDGs) to be achieved by the world community by the year 2030.

That was the time when, at its High Level Meeting (HLM) in 2012, the DAC also recognised the opportunity to develop a more precise and comprehensive statistical system for recording development finance. As a consequence, an agreement described as historic was adopted at the DAC HLM in December 2014 on modernising the statistics of development assistance, including a new definition of official development assistance (ODA). It was essential here that a clear quantitative definition of the grant element (concessionality) was established and the reporting of financial payments was changed to reporting grant equivalents (see Petschel: 2016). Tailoring the statistics to the SDGs is another step towards modernising them and maintaining their relevance. Activities currently discussed at international level are presented in the following.

Adjustment to the SDGs - two options

In order to make development measurable and the 17 general goals of the 2030 Agenda more specific, a total of 169 targets and 232 indicators were prepared. One of these indicators, which serves to monitor goal no. 17 "global partnerships", is net official development assistance as a proportion of gross national income (ODA/GNI ratio, indicator 17.2.1). The statistics of development assistance also serves as an important data source for monitoring other indicators. So far, this set of statistics can provide data for 10 of the 232 indicators and the Working Party on Development Statistics (WP-Stat) is working on adjustments to increase its importance for SDG monitoring.

Modernising the statistics of development assistance

An important step in tailoring the statistics of development assistance to the SDGs is the adjustment of the purpose codes which inform about the purpose of a project. They are updated gradually, so far in the following areas: domestic revenue mobilisation, energy, and ending violence against women and girls. Adjustments are planned, for instance, in the fields of investments, nutrition, non-infectious diseases, migration and humanitarian aid.

As projects are often complex and do not serve one single goal only, it is also intended to provide the possibility in statistics to report several purpose codes per project (up to ten according to what is currently planned). This is a challenge in particular for those reporting as they must be able to split up a project also financially and allocate the resulting percentages to purposes/purpose codes.

As the purpose codes do not exactly correspond to the SDGs and the complexity of projects cannot entirely be reflected even by multiple purpose codes, WP-Stat is presently discussing whether a SDG marker should be used. It would be possible to directly enter the SDGs supported by the project into this new query field. Sweden recently presented a pilot project on the subject. However, it has not yet been decided whether these markers will actually be introduced.

Finally, the problem remains that the statistics of development assistance records the input of the donors, while the SDGs are output-oriented. The statistics of development assistance can be used to measure the SDGs only under the assumption that input always creates corresponding output. However, the statistics cannot be used to measure the actual success of development assistance activities.

New measure

The majority of SDG indicators for which the statistics of development assistance can currently provide data refer to the official support for development as a whole. Not only ODA is considered here but also other official support for development that is non-concessional (Other Official Flows - OOF). There are plans not to replace but supplement ODA by a new measure also including other flows: Total Official Support for Sustainable Development (TOSSD).

The aim is being able to provide a complete and fair picture of officially supported resources and private resources mobilised through official interventions to promote development, even if these are relevant only in the broadest sense. According to its current working definition, TOSSD is to cover all officially supported resources and private resources mobilised through official interventions promoting development in developing countries and supporting development enablers. The protection of global public goods, for instance through climate protection and comprehensive efforts in the field of peace and security, is regarded as prerequisite to development but has qualified as ODA only to a very limited extent. The new concept is to include also the protection of human rights and activities which contribute to safe international migration. Consequently, TOSSD does not only comprise ODA and OOF but goes beyond the two concepts. TOSSD is to help measure the global sustainability goals of the Agenda 2030 and in particular fill data gaps with regard to goal 17. The new TOSSD concept is to be adopted by the international community at UN and OECD level in autumn 2017 and the work on its content completed by the end of 2018 at the latest.

The aim of adjusting the purpose codes, of plans to add a new SDG marker and developing the new TOSSD measure is to make even better use of the statistics of development assistance for Agenda 2030 monitoring. Whether the concept will work remains to be seen in the next few years.

Reference

Petschel, Anja. Statistik der Entwicklungszusammenarbeit im Wandel – Modernisierung auf internationaler Ebene. In: WISTA Wirtschaft und Statistik, 6/2016 edition, page 85ff.

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Events

12th scientific conference on "Big Data - opportunities, risks, development trends" held in Wiesbaden on 29 and 30 June 2017

On 29 and 30 June 2017, the Association of German Market and Social Research Institutes (ADM), the Working Party of Social Science Institutes (ASI) and the Federal Statistical Office (Destatis) held the 12th scientific conference in Wiesbaden, this time on "Big Data - opportunities, risks, development trends". The event was attended by around 90 participants.

The well-established series of joint scientific conferences deals with topics which are equally interesting for market researchers, social scientists and official statisticians. It provides a basis for an intensive and face-to-face exchange of information and experience between all stakeholders.

In her welcome address, Sibylle von Oppeln-Bronikowski, Director at Destatis and Head of Department B "Strategy and Planning, International Relations, Research and Communication", referred to the proverbial "tip of the iceberg which may be interpreted as the visible tip of the data iceberg – knowing that there is still a wide variety of opportunities, but also of risks below the water surface".

The two-day event was moderated by Thomas Riede, Head of the Destatis Division B2 "Institute for Research and Development in Federal Statistics". He gave an overview of the aspects that the conference papers would discuss from the perspectives of official statistics, of market and social research, for instance, in the field of education and continuing training, of statistical/mathematical methods, as well as from a legal viewpoint.

Bernd Wachter, who has been Chairman of the ADM Board since May 2017, presented a paper giving examples of the application and use of "Big Data" in market research. He reported on the experience gained and described the benefits, difficulties and limits. His talk dealt, for instance, with the methodological approach and results of social media analyses, the linking of data from databases and web analytics using survey data, of digital audience segmentations and other applications of market research in the world of digital data.

Prof. Dr. Frauke Kreuter, Professor for Statistics and Methods of Empirical Social Research at Mannheim University, reported on the difficulties of finding suitable staff to work with data from new digital sources and presented possibilities of "Continuing vocational training in survey and data science“. She described an international online Master's course which is designed to meet the demand.

An account of the "Integration of new digital data sources in official statistics" at the Federal Statistical Office was given by Prof. Dr. Markus Zwick, Head of the Destatis Section B205 "Co-operation with the Scientific Community, Microsimulation, New Digital Data".

Following a panel discussion on the topics raised so far, Dr. Martina Rengers, Assistant Head of the Destatis Section F205 "Labour Market", talked about the studies conducted relating to an "Internet-based recording of job vacancies by the Federal Statistical Office".

The final talk of the first day was given by Prof. Dr. Göran Kauermann who holds the Chair of Applied Statistics in Social Sciences, Economics and Business at the Ludwig Maximilian University of Munich. He gave an outline of the "Elite graduate programme in data science". The programme is financed by the Bavarian State Ministry of Education, Science and the Arts as part of the elite network of Bavaria.

The second conference day started with a talk by Erich Wiegand, the managing director of ADM in Frankfurt on the Main, who spoke about the "ISO standard 19731 – digital analytics and web analyses".

Katharina Schüller, managing director and founder of STAT-UP in Munich, presented a paper on "Big Data in statistical methods consulting“, using various practical examples to illustrate the problems, but also the opportunities arising for statistical methods consulting from current developments in the field of "Big Data" and "Advanced analytics".

Prof. Dr. Thomas K. Bauer, Vice-President of the RWI-Leibniz Institute for Economic Research in Essen, holder of the chair of Empirical Economics at Ruhr University Bochum and chairman of the Statistical Advisory Committee attached to the Federal Statistical Office, gave a talk about "Big Data in economic research".

The 12th scientific conference concluded with a contribution by Prof. Dr. Gerrit Hornung from the Institute of Economic Law of Kassel University on the subject "Data protection for Big Data – legal and political implications" which discussed the requirements, questions, challenges and problems from a legal viewpoint.

The conference programme and abstracts of the contributions can be found on the Federal Statistical Office's website at www.destatis.de › Über uns › Veranstaltungen › Veranstaltungsarchiv.

The long versions of the papers are expected to be published at the end of 2017 in a conference volume forming part of the ASI series. The publication will be announced at http://www.asi-ev.org/index.php?id=15.

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Population statistics specialist committee and user conference on "Requirements to be met by the future system of continuous population statistics" held on 14 and 15 February 2017 in Wiesbaden

On 14 and 15 February 2017, population statistics and demography experts from ministries, associations and statistical offices met at the Federal Statistical Office in Wiesbaden. It was a meeting of the population statistics specialist committee, followed by a user conference on "Requirements to be met by the future system of continuous population statistics".

At the meeting of the specialist committee, which was attended by roughly 60 people, the Federal Statistical Office presented the current activities regarding population statistics, statistics of foreigners and integration, and statistics on households and families. One of the topics was the current challenges arising for continuous population statistics from the sharp rise in immigration to Germany observed since 2015. Also, an overview was given on the current technological changeover of the processing procedure regarding population statistics (BASIS+) and the introduction of new data transmission formats.

For the first time, the specialist committee meeting was followed by a user conference, dealing with future requirements to be met by the system of continuous population statistics. The conference was attended by as many as 100 participants from the scientific and political communities, associations, the Federation and the Länder. Based on eight expert papers held by internal and external speakers, the participants discussed the question of what external users expect from official population statistics regarding, for instance, fertility and mortality. Issues were not only the strong points of official statistics compared with other data producers but also the areas where external data users might expect improvement and enhancement.

Another topic of the user conference was international comparisons, focusing on our two neighbouring countries Austria and Switzerland. In their highly interesting papers, representatives from Statistics Austria and the Federal Statistical Office of Switzerland presented the primarily register-based systems of population statistics to which their countries have changed over. Statistics Austria presented its concept of using administrative register data for purposes of population statistics. The Federal Statistical Office of Switzerland informed the audience about the Swiss population census system, which uses administrative register data, too.

The Union of German Municipal Statisticians focused on possibilities and limits of register enhancement from the municipal perspective. Taking Stuttgart, the Land capital of Baden-Württemberg, as an example, it was shown how register data are used for municipal statistics production.

The meeting was completed by a paper of the Federal Statistical Office of Germany on the use of small-area population data.

The wide range of papers illustrated that population statistics and their broad range of data are highly appreciated among expert users. It became also clear, however, that population statistics will have to meet a variety of new requirements in the coming years. Hence they will have to be enhanced to become a more register-based system to be able to meet major new requirements such as geo-referencing of population data and, based on it, the small-area, grid-based representation of results. The conference demonstrated that continuous and critical exchange of views with external users from the scientific and political communities and associations is highly important for official statistics. It is just as important to take a look across the German borders to benefit from other European countries' experience and findings regarding especially register-based population statistics for the further development of our own system.

The presentations given by the speakers are available for download from the website of the Federal Statistical Office at https://www.destatis.de/DE/UeberUns/Veranstaltungen/VeranstaltungenArchiv/NutzerkonferenzBevoelkerungsstatistiken/NutzerkonferenzBevoelkerungsstatistiken.html. If you would like any further information, please send an e-mail to f2-projekt@destatis.de.

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Destatis participation in the European Big Data Hackathon

The European Commission organised a Big Data Hackathon to complement the Big Data activities in place in the European Statistical System. In this competitive event, teams from the national statistical institutes (NSIs) in Europe developed ideas for solving policy issues by combining various data sources. A focus of the competition coordinated by Eurostat was on combining Big Data sources with official statistics in order to develop innovative approaches in the area of "skills". The Hackathon took place in Brussels from 13 to 15 March 2017 alongside the international conference on New Techniques and Technologies for Statistics (NTTS).

21 national statistical institutes from all over Europe had nominated teams of three members each composed of staff of official statistics and of the scientific community. During two and a half days, they generated various prototype solutions in the competition. At the beginning of the Hackathon, the policy question of the competition was announced. The teams were to give an answer to this question using the data provided, other publicly accessible data or their own data sources. The question focused on the mismatch between demand and supply of various qualifications and skills observed in regional labour markets in Europe. The data product to be

created was both to measure the imbalances at the regional level and to develop approaches to tackling them.

The Federal Statistical Office was represented in the team by Lara Wiengarten from the Institute for Research and Development in Federal Statistics and Simon Rothmeier from the IT Competence Centre 'Evaluation and Analysis'. The third team member was Malte Schierholz from the Institute for Employment Research (IAB). On the whole, participation was a complete success even though the team's contribution was not yet among the six prize-winning works determined by a panel of evaluators. The chance to create, based on a wide variety of data sets, solutions for a joint topic together with so many colleagues from other European offices within the shortest time was a welcome opportunity for all national statistical institutes involved to deepen their experience regarding the use of new digital data sources.

The winning team with the most creative solution came from Croatia; the second and third prizes were given to France and Estonia. These teams developed prototypes of statistical products which provide evaluations at a fine level of detail in terms of both space and time and help, for instance, to answer the following questions:

- What skills and qualifications will be particularly in demand in the European labour market next year?
- What combinations of skills are especially often sought after?
- What are the relationships between socio-economic factors and the distribution of different qualifications in the population?

Various indicators and types of analysis relating to these questions were presented using visualisations in the form of interactive dashboards, graphs and maps.

More information on the European Big Data Hackathon is available on its website at: http://ec.europa.eu/eurostat/cros/EU-BD-Hackathon_en

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26th scientific colloquium on "Wage inequality - Facts, data, analysis" held in Wiesbaden on 23 and 24 November 2017

The Federal Statistical Office and the German Statistical Society organise a joint scientific colloquium in November each year. The colloquium is part of a series of well-established events to promote the scientific dialogue between the producers of and users of official statistics, especially users from the scientific, business and political communities as well as from administration.

The subject of this year's event is: "Wage inequality - Facts, data, analysis". The colloquium will be held in Wiesbaden Museum on 23 and 24 November 2017. It will be moderated by Prof. Bernd Fitzenberger Ph.D. from Humboldt University of Berlin. Talks will be given by Prof. Dr. Miriam Beblo, Hamburg University; Dr. Christina Boll, Hamburg Institute of International Economics (HWWI); Prof. Dr. Gustav A. Horn, Macroeconomic Policy Institute (IMK) within the Hans-Böckler-Foundation; Dr. Hans-Peter Klös, Cologne Institute for Economic Research; Ines Kolakovic, Eurostat; Prof. Dr. Dr. h.c. Joachim Möller, Institute for Employment Research; as well as by Martin Beck and Ralf Droßard, together with Kathrin Frentzen and Norbert Schwarz, all from the Federal Statistical Office.

At the colloquium, the Federal Statistical Office will also present the Gerhard Fürst Award which is made every year to recognise outstanding doctoral theses and examination papers that are

closely related to official statistics. Prof. Dr. Walter Krämer from TU Dortmund University, Chairman of the Gerhard Fürst Award expert jury, will give the speeches in honour of the award winners.

The conference programme will soon be available on the Colloquium pages of the Federal Statistical Office's website at

www.destatis.de/DE/Methoden/Kolloquien/Kolloquien.html

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