

IMPACT OF THE USE OF ADMINISTRATIVE DATA AND NEW SURVEYS ON SHORT-TERM BUSINESS STATISTICS IN THE SERVICES SECTOR IN GERMANY

Robin Lorenz / Dieter Schäfer

Statistisches Bundesamt, Wiesbaden, Germany

Summary

The main areas where action is now required to improve short-term statistics in Germany are NACE Sections I, "Transport, storage and communication" and K, "Real estate, renting and business activities". The current strategy is to meet the requirements of the short-term statistics (STS) Regulation in these areas for 2003 to 2005 via a new, fixed-term primary survey. Alongside that, extensive tests will be carried out by the end of 2005 to see how administrative data can be used as secondary statistics illustrating short-term developments and providing a response to other questions. Plans for the primary survey and the use of administrative data are described in detail. In 2005, a decision will be taken on the basis of this experience as to how the requirements of the STS Regulation can be met in these areas as from the 2006 reporting year.

I. Starting point

The scientific and political debate in Germany about the increasing importance of the tertiary sector for the development of the economy has long highlighted the need for improvements to the data provided by official statistics on market services, in particular. This need has been further underlined in recent years by European integration and discussions about the move towards an information society.¹

In certain service fields, especially hotels and restaurants, statistics have traditionally been available in Germany with the variables of structural and short-term reporting.² For financial intermediation, figures come from the *Bundesbank* and/or the *Bundesaufsichtsamt für das Versicherungswesen* [Federal Insurance Supervisory Office]. For the public sector, figures are taken from government budget statistics, and the annual and quarterly results of national accounts provide a comprehensive overview of structural and short-term changes in services, more especially the quarterly reporting in aggregate form, with a broad breakdown by industry. Information on selected aspects is also available from other, very varied statistics - turnover from turnover tax statistics, for example, or employment from the microcensus. Data on services - of limited availability compared with data on the production industries, in particular - have obviously failed to keep pace with the importance of services for the economy as a whole. The main area in which improvements are currently needed is NACE³-Sections I, "Transport, storage and communication" and K, "Real estate, renting and business activities", for which insufficient data are available at national level if they exist at all. The present paper therefore concentrates on these statistics.

Since 2000, statistics on services have been produced annually by the statistical offices as a means of reporting regularly on structural changes in these sections. The sample includes 15% of units at most. This structural survey covers variables such as legal form, centre of economic interest, number of branch establishments, persons in employment, wages and salaries, turnover, intermediate consumption, taxes, subsidies and capital formation. We are currently considering carrying out a smaller coordinated survey to clarify technical/methodological problems (cf. § 7 (2) of the Federal Statistics Act) and test whether it would be possible to coordinate the collection of statistics on product-related services in the manufacturing industries with the collection of statistics on the service industries.

There is greater uncertainty about the future monitoring of the business cycle in NACE divisions 60 to 64, "Transport, storage and communication" and in computer and related activities (72) and other business activities (74). Those developing new ideas for a sub-annual reporting system have to bear in mind that the short-term economic situation is observed by a wide variety of institutions and individuals who are also potential users of such statistics. At national level, the Federal Government, the Ministry of Finance and Economic Affairs, the *Deutsche Bundesbank*, the *Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung* [the German Council of Economic Experts], economic research institutes, professional organisations and the finance departments of large businesses, particularly in the financial sector, are especially important.⁴ Information requirements at national level or at the level of the *Länder* in Germany also depend on who the user groups are, and thus vary considerably, especially as regards the regional and industry-related breakdowns of results.

Discussions about meeting data needs in the NACE divisions referred to above are currently concentrating on requirements arising from Council Regulation (EC) No 1165/98 of 19 May 1998 concerning short-term statistics (the "STS Regulation"), which makes the supply of certain data mandatory. According to the Regulation, the Member States are obliged to send Eurostat by mid-2003 at the latest quarterly data on turnover and persons employed in enterprises in the above NACE divisions. "Persons employed" have to be broken down into seven divisions, with turnover in some cases broken down in even more detail by NACE Rev.1 group. The data have to be sent to Eurostat in absolute form or as an index within three months of the end of each reporting quarter, with the turnover variable also in working day-adjusted form.

For these divisions as a whole, Germany has applied for a derogation from the STS Regulation, requesting a transition period up to June 2003 in every case. At national level, attempts will then be made to meet European information requirements by devising instruments which can at the same time meet the requirements of other user groups, especially the *Länder*. To provide these short-term indicators, Germany has to construct a new sub-annual reporting system, including a legal basis. There are two possible ways of doing this:

- carrying out a new primary survey, or
- extracting the required information on turnover and persons employed from existing administrative records (alternative plan), namely the turnover tax files held by the tax authorities of the *Länder* and data from the *Bundesanstalt für Arbeit* [Federal Labour Office] on persons in employment liable to pay social insurance contributions and those with minor employment.

In Germany, short-term business statistics have traditionally been collected via primary surveys, and so implementing the second solution would be tantamount to a paradigm shift. It would be more cost-intensive initially, since there would be greater design, organisational, technical and legal problems to be solved. Nevertheless, considering that the statistical offices are facing growing demands for more extensive data to be made available, while at the same time dealing with complaints from information-providers about the increasing burden imposed by statistical surveys and coping with the constraints of cost-cutting in the offices,⁵ attempts should obviously be made to produce short-term economic indicators on the basis of administrative data.

The original plan was to use administrative data to meet the requirements of the STS Regulation as from the reporting year 2003. However, in the wake of intensive discussions at national level - especially about the new legal basis that would be needed for the use of administrative data (Use of Administrative Data Act) - the objectives have been extended and the plan amended. The current plan is to meet the Regulation requirements in the relevant service areas during the period 2003 to 2005 via a new, fixed-period primary survey. At the same time, extensive tests on administrative data are planned by the end of 2005, on the basis of a new Use of Administrative Data Act, to solve various problems. Sections 2 and 3 below give further details of plans for the primary survey and administrative data. This experience will then provide the basis for a decision in 2005 on how the service statistics requirements of the STS Regulation can be met as from the reporting year 2006 (Section 4).

II. Short-term indicators using administrative data

II.1 Basic plan and legal basis

The discussion on how administrative data should be used for the short-term monitoring of services is at present concentrating on the "turnover" and "persons employed" variables which, according to Annex D of the STS Regulation, are planned for "other services".⁶ To cover these variables, sub-annual data will be required from the tax authorities of the *Länder*. The necessary data will come from the turnover tax monthly prepayment notice and payments system (UVV) and from the *Bundesanstalt für Arbeit* - from the integrated reporting procedure for social insurance.

Data from these two sources are already used for statistical purposes, e.g. for employment statistics, turnover tax statistics, the statistical register and intra-Community trade statistics. Every year, the tax authorities send the statistical offices of the *Länder* data sets (tailor-made) relating to all enterprises reporting under the UVV procedure. The data have been cumulated to give an annual result and adjusted on the basis of correction returns. These transmissions would have to be converted to sub-annual periodicity for the evaluation of short-term indicators. The *Bundesanstalt für Arbeit* sends the Statistisches Bundesamt, *inter alia*, annual employment data from its business data file, and these figures are then passed on to the statistical offices of the *Länder* in regionalised form, for the business registers maintained by the *Länder*. Here, too, the data would have to be sent sub-annually to the Statistisches Bundesamt, for forwarding to the statistical offices of the *Länder*. The tax authorities and the *Bundesanstalt für Arbeit* are willing and able to transmit data sub-annually provided that legislation is introduced covering the purpose and scope of this operation.

Experience to date suggests that there are no fundamental quality problems with the use of these data for this new purpose, i.e. producing short-term statistics, in the services fields referred to above. However, in view of the specific STS requirements, there are plans to link the individual data files from both sources with a lead file derived from the business register. It is only the business register which can be used to dovetail administrative data from different sources in an integrated reporting system and/or adjust the data to the requirements of the STS Regulation (in particular as regards the underlying units and allocation by industry). This method could possibly also be used to link administrative data and primary surveys.

The general advantages of using administrative data are obvious: along with exhaustiveness (full survey) and the resulting possibilities for disaggregation, plus cost advantages in the longer term, at least, the alternative plan would have the advantage of not overburdening the economy with new surveys and reporting obligations which would inevitably cost money. Businesses and professional associations long thwarted attempts to introduce the annual structural survey on services to which we referred at the beginning of this paper. The alternative plan would fit in with the political objectives of reducing bureaucracy in the economy and make use of modern information technologies in public administration and the statistical offices. It has the backing of umbrella organisations in the Germany economy and of the *Statistischer Beirat* [Statistical Advisory Board]. It would, however, involve a change of method, which cannot immediately be applied to the existing short-term statistics, especially since the statistical offices have limited experience of the alternative plan and the procedures it would entail.

Since the turnover data held by the tax authorities are subject to statistical confidentiality and employment data held by the *Bundesanstalt für Arbeit*, as social data, are protected by the *Sozialgesetzbuch* [Social Security Code], a new national legal basis specifically regulating use of such data for statistical purposes will be required if the alternative plan is to be implemented. The first drafts of a Use of Administrative Data Act have been discussed in great detail in the statistical offices of the Länder and in the *Statistisches Bundesamt*, as well as by the federal authorities concerned, and have been amended many times. These discussions threw up a few new aspects which have led to greater expenditure and a longer time-scale than originally planned:

- The current (December 2001) draft of the Use of Administrative Data Act is no longer geared solely to the production of short-term data on services at federal level to meet EU requirements, but is also intended to supply the necessary regional data by producing results at *Land* level.
- This legislation will also provide a basis for examining, *inter alia* by comparisons of administrative data and the results of primary surveys, whether it would be possible to switch from primary to secondary statistics for other areas of the economy as well (wholesale trade, commission trade, hotels and catering, the crafts sector). This would also be a cost-saving measure.

- We shall also investigate whether the data deliveries from the fiscal authorities can be combined for the various requirements into a uniform data set. Comprehensive, uniform data memories would have to be constructed first of all, but such a system would lead to improvements for other statistical purposes (sub-annual updating of the business register, the sub-annual preparation of turnover tax statistics or the presentation of intra-Community trade statistics by branch of the economy).
- Since the statistical tasks carried out up to now with the help of administrative data - with the exception of intra-Community trade statistics - have been performed decentrally, by the statistical offices of the *Länder*, the technical concepts for the production of short-term statistics on services should, wherever possible, also be geared to decentralisation.
- In addition, the present draft of the Act provides for extensive tests to be carried out to establish the suitability of administrative data for the various intended purposes. A revision clause makes continuation of data deliveries and their further use dependent on the results of these tests, which will include comparisons of administrative data and primary data.
- While the use of administrative data is in the test phase, the requirements of the STS Regulation will be met by a primary survey for a limited period (see Section III).

In view of the current state of play, the Use of Administrative Data Act cannot be approved during the current legislative period (i.e. by September 2002), as was the original aim. Nevertheless, sufficient agreement should be reached to enable it to be passed very quickly during the next legislative period. Although this means postponing further work and tests, the introduction of a primary survey for the transitional period means enables us to gain the time needed to carry out the extra tasks which the use of administrative data involves, and opens up various possibilities for tests on and improvements in the procedure applied.

II.2 The turnover variable

With the use of tax authority data as secondary statistics for the turnover variable, certain properties of these data must be investigated more closely to check on their suitability for short-term statistical purposes. These have to do with the definition of the variable, the date for which turnover is recorded, branch allocation, time restrictions, the treatment of *Organschaften* [integrated groups of companies] and the possibilities for data regionalisation. We shall touch on these aspects below before discussing, in conclusion, the first test results.

- Delimitation of the variable

The main difference between tax and statistical turnover is the different treatment of extraordinary receipts (such as rental income for company-owned production plant, machinery, dwellings or land used by third parties, sales of own land and fixed assets). In statistics, these are not included in turnover but they are included as taxable turnover in the UVV, and may therefore in certain circumstances distort the short-term picture.

Since the bulk of such extraordinary receipts are reported under the UVV heading "non-taxable goods and services with no deduction of tax prepayment", the size of the extraordinary receipts can be estimated fairly accurately. The share of this heading in total goods supplied and services performed changes very little in most industries. In those industries which are relevant here, the share at the breakdown levels specified by the EU is somewhat higher, as much as 10% under a few headings. Nevertheless, the fact that the definition of turnover for tax purposes may differ from the definition used in statistics should not be a barrier to meaningful use of UVV data on services. Presumably, it will be possible to omit this heading when short-term indicators are produced for Eurostat: the tests should check this.

- Time when turnover is recorded

The EU requires information on performance during a given quarter measured in terms of agreed payments - the "target income" of tax statistics. The UVV applies this imputed taxation to most businesses. Enterprises with a turnover of less than DEM 250 000 (EUR 127 823) per annum and those in the liberal professions can opt for taxation on the basis of actual income, i.e. actual incoming payments during the assessment period, regardless of the date of production of the goods or services concerned. If the payment is then made during one of the following quarters, UVV data based on actual income payments do not accurately reflect the short-term economic situation in a given period.

Taxation is more often based on actual income in the services industries. However, an evaluation of turnover tax statistics for 1998 shows that changes in taxation on the basis of actual income are so small that in our view they are scarcely a hindrance to the meaningful use of UVV data. Although in some NACE subdivisions a very high percentage of taxpayers choose to pay tax on actual income (up to 20% in 64 and 74.2), the share of total goods and services supplied by these taxpayers in the relevant areas of the economy is as a rule very much smaller and only in 74.2 (architectural and engineering activities and related technical consultancy) does it reach a value (11.3%) which might possibly lead to slight distortions.⁷

- Allocation to branch of the economy

The tax authority branch allocations do not entirely meet statistical requirements. The plan is therefore to use the branch data from the business register, linking the turnover returns with a statistical lead file derived from the business register. Only in the case of units which cannot be allocated at the time of this linking would we then have to have recourse to the branch of the economy reported by the tax authorities.

Information on branch allocation in the business register is steadily being improved. By means of annual statistics on services, the share of business register branch data which comes from primary surveys is gradually increasing in NACE Sections I and K, and since the 15% of enterprises questioned every year represent a much higher share of total turnover than 15%, with the use of administrative data the branch allocation of UVV turnover on the basis of the business register should yield results whose quality is on a par with those of a primary survey.

- Time restrictions

To meet the requirements of the STS Regulation, turnover data must be available on time and be exhaustive wherever possible. If results are to be supplied for the first quarter at the end of June, incoming data can presumably be taken into account up to the beginning of June. Under tax legislation, businesses which have not been given a permanent extension for the filing of returns (25%) have to submit their UVV returns by the 10th of the month following the end of the reporting period and businesses with a permanent extension (75%) by the 10th of the second month after the end of the reporting period (for the first quarter (those who pay quarterly) or for March (those who pay monthly) up to 10 May).

However, experience to date with the first test assessments indicates a possible timing problem for the third month of the quarter with returns from enterprises which have a permanent extension, regardless of whether they pay quarterly or monthly. The result of test investigations from 2000 showed - albeit with only a few enterprises - that a return was available in around 90% of such cases. The few missing returns would have to be estimated. Thus in our view the fact that the returns are in some cases incomplete would not lead to any technical problems for the purposes of short-term statistics.

- *Organschaften* [integrated groups of companies]

According to turnover tax legislation, a number of enterprises (*Organgesellschaften*, i.e. controlled subsidiary companies) may under certain circumstances combine to form an integrated group, an *Organschaft*.⁸ In this case, only one of the enterprises, the *Organträger*, or controlling company, will submit a return showing the total turnover of the integrated group. The tax authorities will not store any information on the composition of the group or the division of turnover among the different enterprises in the group. If, in statistical evaluations, the total turnover of an *Organschaft* is allocated to the branch/location of the controlling company but the enterprises in the group are not all of the same kind, i.e. they come under different branches of the economy, the branch allocations may be inaccurate. The problems caused by *Organschaften* are much more serious when it comes to producing correct results by *Land*, since in this case a regional breakdown of group turnover is required as well.

The business register now contains some indication - from a register enquiry - of how *Organschaften* are made up. In addition, the *Bundesamt für Finanzen* [Federal Finance Office] keeps a file on such groups, with data on the composition of *Organschaften* involved in external trade. These data could be used for the register, subject to a legal basis. In conjunction with auxiliary variables from the business register to be used for the breakdown of turnover, such as turnover figures from primary surveys or numbers in employment, information from the *Bundesamt für Finanzen* and results from the register enquiry - provided this enquiry is repeated in the future - would be good starting points for the breakdown of the turnover of *Organschaften*. This would go a long way towards solving the problems with such groups.

In NACE Sections I (Transport, storage and communication) and K (Real estate, renting and business activities), *Organschaften* are presumably less important than in manufacturing, (NACE Section D) or financial intermediation (J), for example. The share of the total branch turnover reported by the *Organträger* [controlling companies] in the relevant branch was, according to 1998 turnover tax statistics, 12% in NACE Section I and 7.9% in K (as opposed to 33.6% and 37.4% in Sections D and J respectively). However, these figures do not indicate the size of the turnover of *Organgesellschaften* [controlled subsidiaries] in Sections I and K if these submit returns combined with the figures from a controlling company in a different NACE section.

- Regionalisability

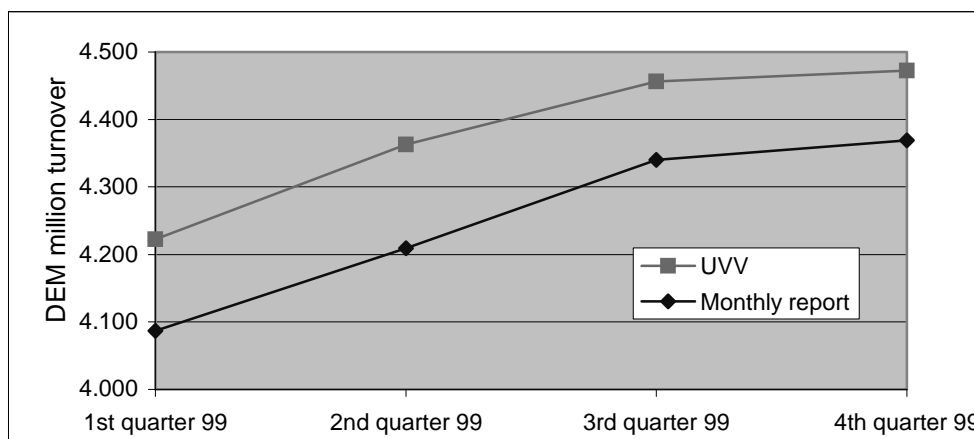
Whether the tax administration's turnover data are regionalisable or not depends largely on whether the turnover of *Organschaften* and enterprises which have activity in more than one *Land* can be assigned to the correct *Land*. The breakdown by *Land* of UVV data on such enterprises may be based on annual service statistics, the breakdown of turnover may be based on numbers in employment or there may be an additional enquiry among a few large-scale enterprises. Carrying out a primary survey in accordance with § 5 (2) of the Federal Statistics Act and supplying administrative data at the same time will be extremely helpful in developing appropriate regionalisation concepts.

- First test results on the turnover variable

As already stated, for a comprehensive test on whether or not tax authority data are suitable for short-term statistical purposes, a new legal basis is required. Up to now it has been possible to carry out only a few test investigations in this field, yielding few results and no individual data. Tax authority data have been compared with turnover data from the monthly report relating to 174 multi-establishment enterprises in manufacturing, two of which were paired in each case.

The comparison of levels of UVV returns and monthly reporting results highlighted discrepancies which, in the majority of enterprise pairs investigated, moved within an order of magnitude which might be deemed acceptable, considering the dissimilarity of the two data sources. Seen in relation to the test enterprises as a whole, the discrepancies in the 1999 annual turnover calculated from the individual monthly values were -3.5% (see Figure 1). A comparison of movements in the figures produced a similar outcome. Here, there were no noticeable differences between the two sources. Any differences arose largely from the way in which the intensity of movements in turnover was depicted (comparison of absolute figures for rates of change). As with the comparison of levels, any comparison of movements must avoid overstating the results, owing to the small numbers involved. With so few units being tested, in the worst-case scenario a single pair of enterprises may be responsible for potential discrepancies in values indicating change.

Figure 1: Level of and movements in the quarterly total turnover of all enterprises tested



No firm conclusion can be drawn from the test on tax authority turnover data. No objective assessment of the difference which emerged in both levels and movements of figures is possible with so few cases.⁹ In addition, results for manufacturing cannot be transferred directly to enterprises in NACE Sections I and K (Transport and communication, computer activities, business activities etc.). Despite all the reservations, however, tests carried out so far suggest, at least, that the UVV data are suitable for short-term statistics. This impression was on the whole strengthened by further comparisons of annual turnover data from the investment in manufacturing survey with turnover data from the UVV on the one hand and of primary data on intra-Community deliveries from intra-Community trade statistics with UVV data on the other.

II.3 "Persons employed" variable

The use of data from the *Bundesanstalt für Arbeit* [Federal Labour Office] as secondary statistics for the purposes of the STS Regulation raises specific questions about the delimitation of the variable, the underlying statistical unit and branch allocation, as well as about restrictions on time. The section below will touch on these points and on selected test results.

- Delimitation of the variable

The variable "persons employed" referred to in the STS Regulation covers the whole of the occupied population, i.e. both employees and the self-employed and family workers.¹⁰ But administrative documents from the *Bundesanstalt für Arbeit* provide data only on those who are liable to pay social insurance and those with minimal employment. No data are available from this source on the self-employed, family workers or government officials, for instance. For the monthly calculation of employment in the national accounts, appropriate data from other sources are therefore estimated and added in. A similar procedure could be chosen for implementation of the STS Regulation. If so, we should have to check, in particular, whether groups not covered by the *Bundesanstalt für Arbeit* affect to any noticeable extent either the level of the "persons employed" variable or changes over time in the service fields under consideration.

- Units and branch allocation

The *Bundesanstalt für Arbeit* is able to report employment data only at the level of the establishment. According to the STS Regulation, the enterprise is the basic reporting unit in the services field, i.e. it is not the individual establishments which have to be assigned to the branches in question but the enterprises, according to their centre of economic interest. However, the connection between individual establishments in an enterprise cannot be derived from *Bundesanstalt für Arbeit* data alone. If information from the business register on the connection between establishments and enterprises is used as well, it is still possible to combine establishments into enterprises and/or to ascertain the branch of the enterprise to which an establishment belongs.¹¹

- Time restrictions

Tests have already been carried out using figures for employees liable to pay social insurance contributions, to see whether data from the *Bundesanstalt für Arbeit* meet the time criteria of the STS Regulation.¹² The employment data for a specific quarterly reference date were counted and compressed to establishment data once after three months - as required by the alternative plan schedule based on the STS Regulation requirements - and once after six months - by which time, in the experience of the *Bundesanstalt*, for any given reference date additional entries and deleted entries relating to persons in employment liable to pay social insurance contributions are to all intents and purpose complete in the integrated reporting system for social security.

Providing that the reporting date for the employment enquiry is not the end of the quarter but an earlier date (end of the second month in the quarter) - for the first quarter of 2001, therefore, 28 February 2001, for example - and assuming that the statistical offices themselves need approximately four weeks for data preparation and analysis, including the transmission of results to Eurostat, the time lag between the reporting period and the retrieval/evaluation date for employment data from the *Bundesanstalt für Arbeit* must be cut by 50% from its present level, from six months to three months. Only then can the results be sent to Eurostat on time. According to information from the *Bundesanstalt*, after three months it has received only some 80 to 85% of the additional entries and deleted entries relevant to a particular reference date.

The comparison of levels made first of all showed clearly that, for almost all establishments in NACE Sections I and K, the provisional - counted after three months - and the more or less final - counted after six months - employment data either match in full or are only slightly different. The time restrictions are not generally a problem when it comes to illustrations of changes over time, either, if we disregard the few cases of restructuring, which are unimportant in quantity terms. The use of three-monthly values would therefore appear in principle to be appropriate for short-term statistical purposes.

- Further test results

In any event, comparisons of movements in the figures (three-monthly values compared with six-monthly values) showed that the rates of change can vary considerably depending on the methodology used to delimit the reporting units and the distribution of establishments among the branches of the economy.¹³ Further work is therefore needed on methodology, along with comprehensive test investigations, to solve problems of methodology such as the delimitation of the reporting units (constant or variable) and how/when it would be useful to show a change in branch.

An additional comparison of administrative data and data from a primary survey, the monthly report on manufacturing industry, showed that the three-monthly values tally fairly closely with the *Bundesanstalt's* six-monthly values, but there are larger discrepancies when monthly reporting results are compared with six-monthly values taken from administrative data. No further conclusions are possible on this point at present, however, since it would seem that discrepancies in the rates of change arise largely from existing (methodological) differences between the monthly report and the integrated reporting process as regards delimitation of the reporting units and variables, and from the *Bundesanstalt's* less up-to-date branch classification.

The outcome of tests so far indicates that the employment data retrieved three months after the end of the reference date from the integrated social insurance reporting procedure would in principle be suitable for the purposes of short-term statistics. The tests also showed clearly, however, that assessments of the suitability of the data for short-term statistical purposes depend very much on the choice of methodology. There is a further reservation: the tests carried out so far included only a very rough simulation of the later procedure. In particular, they were unable to link administrative data with the business register, and it was therefore not possible to check what effects the business register "interface" would have on the branch-specific results (the business register system would "fine-tune" the results).

II.4 Addition of further variables

Data users would consider that illustrating short-term changes in services on the sole basis of the "turnover" and "persons employed" variables is a starting point rather than satisfactory definitive coverage. Accordingly, proposals for the further development of short-term statistics at European level include changes in "other services" in the STS Regulation (Annex D).¹⁴ These refer to the following variables: hours worked, gross wages and salaries and producer prices. The aim is to produce results for these variables as from 2003, with a transition time of three years at the most.

From the technical point of view, producer prices can to a large extent be developed and obtained independently of the other survey variables¹⁵, whereas it is not clear how the variables, "gross wages and salaries" and "hours worked" can be covered in the future if the administrative data plan comes into effect. Up to now, the *Bundesanstalt für Arbeit* has not had available any data on gross wages and salaries or hours worked, but current plans for remuneration statistics should mean that it will be possible, using the *Bundesanstalt's* breakdown of persons in employment by full-time, part-time and minimal employment, to derive data on gross wages and salaries and, possibly, hours worked at intervals of less than one year. The details of the methodology and a comprehensive assessment of data quality will, however, have to be examined as part of the test investigations.

III. Short-term indicators via primary surveys

An independent survey in Germany for short-term indicators for NACE Section I, "Transport, storage and communication" and computer and related activities (72) and other business activities (74) has either been postponed or has proved not to be feasible, primarily because preference has been given to developing an annual structural survey, funds have been short and it has been difficult to persuade the economic players to accept such a survey.

With no legal basis as yet for the use of administrative data, work is now under way on a regulation for a quarterly survey, which will oblige enterprises in the NACE areas concerned to provide information on turnover, number of persons in employment and their main economic activity, in order to meet the requirements of the STS Regulation as from 2003 and expand national and regional short-term statistics. In line with §5 (2) of the Federal Statistics Act, a regulation of this kind is limited to three years, i.e. reference years 2003 to 2005. If the survey is to be continued after that, a new legal basis will be necessary.

The current plan is for the survey to be organised as a sub-survey of the structural survey in the relevant services.¹⁶ New entries are to be taken into account at least once a year. The maximum size of the sample was originally to have been 5% (around 28 000 enterprises), but in the meantime an increase to 15% has been discussed, so that reliable results might be obtained for the majority of the *Länder*, at least. To enable more reliable results to be obtained for regional short-term analysis, the "turnover" and "persons employed" variables will also be broken down by *Land* in the case of survey units with branches in more than one *Land* and turnover or income of EUR 250 000 or more.

For the sample selection and extrapolation, there will be stratification by *Land*, by three-digit level of the economic classification and at least a few turnover size classes. The survey itself will be carried out as an electronic enquiry as well as with the traditional type of questionnaire. The aim is to be make the results available two months after the reference quarter.

The general advantages of a primary survey as opposed to the use of administrative data plan are obvious: under the new arrangements, the survey can be designed specifically to meet the STS Regulation requirements. The methodology for incorporating further survey variables such as gross wages and salaries or hours worked will be easier. As regards the breakdown of results by *Land*, it will be an advantage that, for the larger survey units, at least, turnover and numbers in employment will be collected in a breakdown by *Land*. However, the size of the sample - depending on final arrangements - means that reliable regionalisation is possible only within narrower limits than if administrative data are used, since these are based on a total survey. Furthermore, a primary survey will burden respondents with extra work and hence higher costs and will also increase the cost for official statistics, at least in the medium term.

IV. Overall assessment and outlook

Germany can meet the vast majority of the STS Regulation requirements via existing statistics. There are, however, substantial gaps in NACE Sections I "Transport, storage and communication" and K "Real estate, renting and business activities", gaps which can be closed with the planned use of administrative data or with a new primary survey.

Since there has been no legal basis, it has not yet been possible to carry out a comprehensive test on the use of administrative data, but a primary survey in conjunction with the development of administrative data use will enable extensive tests to be carried out in the relevant services by 2005. By comparing data collected via primary surveys with data collected via secondary statistics, these tests will give a differentiated picture of the strengths and weaknesses of the two approaches. The impact on the quality of the short-term data should be positive in the end, since the test phase can be used to solve any running-in problems with the administrative data plan and data preparation methods can be optimised, whilst comparisons of data results will pinpoint any potential problem areas in the primary survey. This work will then provide a firm foundation for decisions to be taken in 2005 as to which plan or mix of two plans is to be given priority in the areas in question as from 2006, taking into account quality and costs. If the planned amendment to the STS Regulation is approved, it will also be useful to see what quality level can be achieved for the supplementary variables "gross wages and salaries" and "hours worked".

There are further aspects which may affect decisions in the areas in question: the demands of the *Länder* for the regionalisation of short-term reporting, for example, or, from the point of view of future viability, user requirements above and beyond the proposals for amendments to the STS Regulation currently under discussion. Thus Eurostat's ideas for a switch in the medium-term from quarterly to monthly reporting if administrative data are used would not involve any serious changes, since the basis would already be monthly data. In the case of a primary survey, however, there would be a substantial additional burden for the information-providers,¹⁷ though at the same time the use of administrative data, i.e. a full survey, makes possible a more detailed subdivision of heterogeneous service areas by branch, and this may be of interest to individual user groups.

There are also increasing demands, from the European Central Bank in particular, for improved topicality. For quarterly short-term statistics, there is talk of shortening the data transmission deadline from three to two months. Experience suggests that users' ever more urgent demands for topicality can better be met via a primary survey or a mix of the two concepts than by the use of administrative data.

An assessment of the plan for the use of administrative data must, however - bearing in mind the extended objectives referred to Section II.1 - consider more than just its suitability for supplying short-term indicators for NACE Section I, "Transport, storage and communication" and divisions 72 "Computer and related activities" and 74 "Other business activities". Where short-term economic reporting is concerned, the use of administrative data can potentially yield suitable results, at least for all areas of the economy where market services predominate. Existing short-term statistics, in particular on wholesaling, commission trade, hotels and restaurants and the craft industries, could therefore conceivably be replaced, with a saving in costs and a lighter burden for respondents. At the same time, administrative data could be tested to see how much additional information they could provide for areas not as yet covered by national short-term reporting (e.g. market producers in other divisions of Section K "Real estate, renting and business activities" or in parts of Section O "Other community, social and personal service activities"). Such information which might be used for national and regional accounts, for example. Thought could also be given to introducing special additional investigations based on the use of administrative data and relating to areas not so far covered by short-term statistics (e.g. enterprises below the cut-off threshold). In the end, however, the possibilities for this extended use of administrative data for short-term statistical purposes should depend on the results of the exhaustive tests on services planned between now and 2005.

¹ See, for example, PP. Köhler/G. Kopsch: *Die Bedeutung der internationalen Vergleichbarkeit von Statistiken über die Informationsgesellschaft*, in: *Wirtschaft und Statistik*, Volume 11/1997, pp. 751ff.

² See O. Angermann/V. Polte/A. Dollt: *Überlegungen zur Durchführung der europäischen Verordnungen über die Unternehmensstatistik in Deutschland*, in *Wirtschaft und Statistik*, Volume 7/1998, pp. 555ff.

³ Statistical Classification of Economic Activities in the European Community (NACE Rev. 1).

⁴ See W. Strohm: *Beitrag der amtlichen Statistik zur gesamtwirtschaftlichen Konjunkturbeobachtung*, in *Wirtschaft und Statistik*, Volume 10/1997, pp. 683ff.

⁵ See B. Schmidt: *Registergestützte Datengewinnung*, in: *Spektrum der Bundesstatistik*, Volume 15 "Neue Erhebungsinstrumente und Methodeneffekte", Wiesbaden, 2000 and H. Lützel: *Registergestützte Datengewinnung – Überlegungen zur Umsetzung der EU-Unternehmensstatistiken*, in: *Statistische Ämter des Bundes und der Länder, Amtliche Statistik*, 1999.

⁶ See Section II.4 on the variables currently being discussed as extensions: producer prices, wages and salaries and hours worked.

⁷ There is, moreover, no guarantee that enterprises which choose to be taxed on the basis of actual income would report target incomes if there were a primary survey.

⁸ The requirement for being counted as an integrated group under turnover tax legislation is that a legal person (controlled subsidiary company) is integrated into an enterprise (controlling company) taking into account all the relevant facts - financial, economic and organisational. See *Statistisches Bundesamt, Fachserie 14 "Finanzen und Steuern"*, Series 8, "Umsatzsteuer" and S. Hagenkort/P. Schmidt: *Schwierigkeiten und Lösungsmöglichkeiten der Behandlung von steuerlichen Organschaften im statistischen Unternehmensregister*, in: *Wirtschaft und Statistik*, Volume 11/2001, pp. 922ff.

⁹ When the suitability of the UVV data is being assessed, the fact that it was in every case the first returns submitted by the enterprises which were taken into account must be borne in mind. The test did not take into account any subsequent corrections in the turnover tax prepayment notice. It is possible that use in the test of the first returns submitted early on for the UVV was a source of error, especially since the turnover data have to be reported for the monthly report within a very short period of time. When the alternative plan comes into use, it will be possible under certain circumstances, at least for the first two months in each reporting quarter, to use corrected turnover values as well. This could improve the quality of data from the UVV.

¹⁰ For these details, see Commission Regulation No 588/2001 of 26 March 2001.

¹¹ In the case of establishments not included in the URS [Business Register System] lead file, and for which there is therefore no information available on the enterprise connection, the branch to which the establishment belongs must be taken from the *Bundesanstalt für Arbeit* information. This does at least mean that the branch allocation remains constant throughout the year, since the branch information used is that which referred to the establishment in question at the time of the first delivery during the year.

¹² For these investigations, however, the branch allocation used by the *Bundesanstalt für Arbeit* for the establishments in question was used.

¹³ For further explanations, see R. Lorenz/ B. Schmidt: *Endbericht "Registergestützte Umsetzung der EU-Konjunkturverordnung im Dienstleistungsbereich (NACE-Abschnitte I und K)"*, Part 1, Project report for Eurostat No 9.442.015, Wiesbaden 2000.

¹⁴ See G. Schäfer: Proposal for the evolution of the STS Regulation, Version 1.1, Eurostat, 4 December 2001.

¹⁵ In any event, turnover data will be required here in as detailed a breakdown as possible by type of turnover/branch of the economy, for index weighting.

¹⁶ The following description is based on documents produced during the expert discussions on services statistics and discussed with the statistical offices of the Länder.

¹⁷ There is similar potential for the improvement of national short-term reporting, with the availability of monthly data from the alternative plan leading to an improvement in the data situation in the construction industry, for example.