

HOW TO BEST ORGANISE REGIONAL STATISTICS – SOME VIEWS FROM PRACTICAL EXPERIENCE IN A FEDERAL STATE

Klaus Trutzel

Summary

Official statistics has to serve the public interest. In a federal state like Germany with a strong local self-government, this public interest may be defined differently from one territorial unit to the other. On the other hand, it is in the interest of all users to assure the best possible quality and comparability of official statistics. How this is organised in Germany and what effects this has had on the European project of regional statistics, the so-called Urban Audit, is explained to demonstrate the strengths and weaknesses of the German structure. Some of the relevant aspects shown are “divided responsibility – divided availability”, “the slowest vehicle determines the speed of the convoy” and “territorial references, a distributed task”.

The user of statistics wants to have easy access to the data he needs. The data must answer his questions, it must be up-to-date, reliable and comparable. But not all statistics for which there is demand at a municipal or regional level can be covered by national statistics, although this would best fulfil the requirements of standard quality and comparability.

It is easy to show that the combination of central and decentralised statistics can lead to optimal results if the co-operation and co-ordination are managed effectively. But this exactly is the problem, because each partner has his own goals and incentives. Concluding, some proposals will be made what strategies could be developed to optimally combine the strengths of central and decentralised statistics and to minimise the respective weaknesses.

1 HOW TO REFLECT USER NEEDS IN OFFICIAL STATISTICS

Everybody knows, or at least should know, that official statistics is not, by itself, what the user would expect, i. e. describing the phenomena suggested by its title in a reliable and comparable way as well as being available and accessible when and where it is needed. In describing reality in an abstract way, very much depends on who decides on the aspects to be observed, on the methods to be applied for collecting and processing the data and on the way the data are presented. It is the fundamental principle of official statistics in a democratic state that it is conducted in the public interest. And the more confidence respondents and potential users have in this, the more successfully can official statistics be operated building on this public trust.

But who are the users and who defines the “public interest”? As everybody has his own goals and interests, our way to arrive at public goals and to define the public interests is to elect representatives and let them reach agreement on what is in the interest of the public. The more homogeneous the groups represented the more this public interest corresponds to the interest of those represented.

In states where there are relevant differences of interests between its territories, like in Germany, a federal structure has frequently been adopted. It is only natural that each territory with an elected body defining its public interest would also define its own official statistics, i. e. the statistical information needed to serve the public interest. This is primarily the interest of the territorial government responsible for the public interest of the territory. At the same time, official statistical information is important to control the government. This is why the elected representatives not only define the information needs but also decide on the organisational infrastructure and accessibility of results. Accordingly, in a federal state like Germany, with a federal government, 15 Länder (state) governments and thousands of local governments each controlled by elected representatives, each may have their own statistical organisation: We have the Federal Statistical Office, 15 Länder Statistical Offices and around 100 municipal statistical offices of the large cities.

In order to make a good judgement of one's own situation it is also important to be well informed about the situation and trends in territories that influence one's own activities and opportunities. Measuring one's own situation against that of others requires comparable information in content, quality and availability. No doubt, comparability can best be achieved by having the content, quality and availability of statistical information defined by a central authority. But the information needs may differ between territories, and only in theory can the information provided centrally cover all the information needs in the territorial units.

Another aspect of user needs is cost effectiveness. It is in the interest of users of official statistics on all levels of government to make statistical information of high quality available at the lowest possible costs. One important condition, therefore, is to avoid double work which means that data and other input necessary to produce information should be invested only once for as wide a range of uses and the satisfaction of as many users as possible. The goal to minimize the burden for the respondents is aiming in the same direction. Some of the statistics laws of German states therefore postulate that municipalities may conduct their own surveys only when the state statistical office cannot provide the data needed.

Thus, official statistics must harmonise the two conflicting goals, to satisfy the differing needs of users of official statistics and at the same time assure comparability and minimum cost.

2 THE GERMAN SITUATION

The features of the German structure of official statistics can best be understood if contrasted against that of a more central state like France. Without going into details it can be said that the system of official statistics in France is highly centralised. It provides a very wide range of statistics down to the municipal level and is most efficient in offering statistical results of high methodological quality that are comparable by the way they have been collected, processed and presented. User needs are defined centrally, deviant needs exceeding the scope of central data collection cannot be satisfied within the system. As all individual data is available centrally, INSEE is in a position to answer a wide range of questions by problem-oriented evaluations of the available data.

Looking at the German system of official statistics, we see the other extreme. The federal structure of the state is reflected in the system of official statistics: There are three levels of

government, central (federal), state and local government. Local government is performed by local communities - municipalities - through a municipal council and a mayor elected by the citizens, and an administration controlled by the mayor and the council. German municipalities are responsible for the local welfare. They are entitled to deal with all matters of the local community, except those matters for which the state has been declared responsible by law. A growing number of exceptions and the fact, that municipal budgets depend more and more on transfers from the state, has reduced the practical ability to execute local self-government. Nevertheless, planning authority, authority over the budget and over the internal organisation of the municipal administration are still essential elements of municipal self-government and are guaranteed by the constitution.

German municipalities can decide whether or not and to what extent they want to operate their own municipal statistics. Federal and state legislation on statistics demand that municipal statistical offices comply with legal requirements to guarantee the same confidentiality of individual data as statistical bureaus of the state. In a wider sense, municipal statistics is, in principle, part of the system of official statistics of the federal state.

As mentioned before, there are central statistical offices on all three levels of government. On each level of government there is a more or less independent level of official statistics:

- the Central Statistical Office – “Statistisches Bundesamt” - for the federal government,
- the 15 Statistical Offices of the states – “Statistisches Landesamt” - for the states’ governments,
- the Municipal Statistical Offices – “Statistisches Amt der Stadt” - for the municipal governments.

Each level of government can issue regulations for their own statistics. But the statistical bureaus on the three levels are also interrelated by regulations requesting the lower levels to collect statistics for the superior levels.

Each official statistical survey and data collection must be based on a specific law, most of them being passed by the federal parliament. The state statistical bureaus execute these laws so that in practice most official statistics of the state level is collected and processed by the state statistical offices. The function of the federal office is to prepare the statistical legislation, coordinate the states in the field of national statistics, represent the federal state internationally and prepare national results for the national government, for Eurostat and for other international bodies. Only very few statistical surveys, like the Microcensus, are managed by the Federal Statistical Office itself, thus giving this office access to the individual data. Publication of results of national statistics, also on electronic media, is reserved to the state statistical bureaus for territorial levels below the state.

The basic law for all official statistics is that for federal statistics – “Bundesstatistikgesetz”. The states have translated this law into state laws thus providing also a legal basis for municipal statistics permitting the storage of confidential data if certain minimum requirements are met. Municipal statutes regulate municipal statistics in accordance with the legal requirements for official statistics on state level concerning confidentiality and data protection including independence from the executive administration. Only when the municipal bureau is acting for the state, the state statistical bureau has a right to supervise it. Otherwise municipal statistics is - within the legal framework - independent of the state. In relation to the statistical bureaus of the state, there are no fields of statistics reserved to

municipal statistical offices only. But the state statistical bureaus generally recognise the exclusive right of municipal statistical offices to produce and distribute data for territorial units below the level of the municipality.

Municipal statistical offices are only exceptionally involved in the primary collection of national and state statistics, like the national census, sometimes the current statistics on tourism, building and construction, and in data collection for the consumer price index. In all other national and state statistics they don't have access to the individual data. These limitations do not exist for the state statistical offices as they collect and process all state and almost all national statistics. As almost all national statistics is managed by the 15 state statistical offices this requires special efforts to assure national comparability and uniform availability of the results. For each field of statistics there is a committee consisting of the responsible 15 state specialists, and there are also comprehensive committees on dissemination, on data processing and on the national statistical programme, apart from regular conferences of the heads of the federal and the state statistical offices. Delegates of the municipal offices attend most of these conferences as guests. An advisory board of the most important social and economic groups helps to adjust the programme of federal statistics to the needs of the public. To support coordination and to reduce the workload, the state statistical offices have nominated a speaker for each field of statistics, e. g. the Hamburg Statistical Office for population statistics, the Baden-Württemberg statistical office for national accounts and the Bavarian statistical office for the coordination of regional statistics.

One important aspect of regional statistics is the **territorial reference system**. The original data is usually combined with an address, i. e. name of settlement, name of street and number of the building within this street. For state statistics, these spatial attributes are usually translated into less detailed territorial references. In municipal statistics the individual address is an essential basis for a spatially flexible selection and aggregation of the data. Many cities have built up statistical information systems. Here, a standardised territorial reference system down to the building block and to the individual building is one of its most important instruments. Except for the national census, the state statistical offices don't have such references below the municipal level. Nor are they entitled to keep an address in the individual data sets, because, from the point of view of confidentiality, this is not considered necessary for producing the results they are responsible for on the level of the state.

3 EFFECTS OF DIFFERENT STRUCTURES ON THE EUROPEAN PROJECT URBAN AUDIT

The Urban Audit is a European project aiming at a comparison of the quality of life in 258 medium size and large cities of the European Union. 332 variables had to be provided on the level of the administrative city, 137 for a so-called larger urban zone and 34 variables for sub-city districts. In this project of regional statistics, the tasks are defined by Eurostat for all the member states. Thus, it may serve to show some of the strengths and weaknesses of the different national systems of official statistics, if this is viewed "from above", not necessarily from the point of view of a user looking for data on a specific city or urban region.

For France, INSEE was able to provide well defined comparable and reliable data for variables that could be selected or derived from the national statistical programme. Other data, like data on some cultural infrastructures and their use had to be reported as "not available".

Being able to dispose of detailed census data, INSEE could apply statistical methods to create homogeneous sub-city districts for all French cities, with the positive effect that the French cities show the greatest possible disparities between “wealthy” and “poor” areas. But many other data that had not been collected by the census, were not available on the sub-city level.

In the Irish Republic, like in many other states, the cities don’t have statistical offices. This is why the National Statistical Office had great difficulties collecting data from the cities, not having a statistically qualified partner to address. Apart from the arduous task to find the appropriate partners, collecting data from different departments of the cities made it almost impossible to judge the quality and comparability of this data.

In Germany, none of the three levels of statistics would have been able to manage the project by itself. The Federal Statistical Office and the state statistical offices refused to taken the responsibility for this project, partly because Germany did not have a national census for the last 17 years, but mainly because the national and the state offices would have been able to provide only a small portion of the data requested for the cities and none of the data for the sub-city districts. The cities, on the other hand, might have been able to provide, or at least estimate, most of the data, but of course preferred to use available data from the federal and state statistical offices to assure uniform data quality and comparability. Fortunately, the federal and the state statistical offices and the association of municipal statistical offices had just established the “Network for Urban and Regional Statistics”, to promote cooperation in this field on a voluntary basis. So, all sources could be used with the positive result, that in the end, there remained only a small portion of the data that could not be provided from any of the sources.

In addition to the quantitative information from the statistical offices, DG Regional Policy of the European Commission also collected data on the citizens’ perception of the quality of life by means of telephone interviews. The Federal Statistical Office and the state statistical offices don’t conduct opinion surveys. But many municipal statistical offices have a long tradition in surveys of this kind. They therefore discuss the possibility to adjust their questionnaires in such a way that DG Regio could in future be provided with harmonised data from these municipal surveys. This shows the strength and the weakness of municipal statistics at the same time: Cities have been conducting opinion surveys for the needs of their own administration for many years, but without this external incentive, they had not considered comparable perception data important enough to harmonise their questionnaires.

What can be achieved at low cost by cooperation, on the other hand, is demonstrated by the tool for standard population statistics the cities developed for their internal statistics from the municipal population registers. It enables many German cities to provide comparable household statistics on the sub-city level for the Urban Audit without having to wait for a census that may never come.

4 SOME ADVANTAGES AND DISADVANTAGES OF THE GERMAN FEDERAL SYSTEM OF OFFICIAL STATISTICS

In the German federal system, each level of government has responsibilities assigned to it by the constitution and by law. Within the framework of its legal responsibilities, government and parliament have to make decisions. These decisions must be based on information. The

legal right to decide on their own future includes the right to define and procure the information needed for making the best possible decisions and controlling their effects.

Local self-government goes back to the beginning of the 19th century. At the beginning of the 19th century the first German states established statistical bureaus; the first municipal statistical offices were established in Bremen in 1861 and in Berlin in 1862. Nowadays, most German cities of 100,000 and more inhabitants have their own statistical offices. As municipalities are free to decide whether they want to establish a statistical office or not, one can say that, in principle, the freedom of information is guaranteed for each level of government. This is a fundamental advantage which, in practice has many positive but also negative effects on regional statistics.

4.1 Divided responsibility – divided availability

In the federal system, the responsibility for the statistical information needed rests, at first sight, primarily with each government and parliament in the territorial units. But, of course, a government on the state or municipal level cannot collect the data it would need for comparison from all other territorial units concerned. The freedom to collect the statistical data needed is therefore limited to one's own territory. The functioning of the overall system of official statistics is therefore essential to really assure availability of the data needed.

The basic law for federal statistics postulates that federal statistics serve the needs of the federation as well as of the states including the municipalities. This responsibility also for the statistical needs of the municipalities, however, has not been taken very serious in the last 15 years. The federal bureau strongly opposes a census that would provide detailed, reliable and comparable information on the social and economic conditions down to building block and in principle to the individual building. This is only the most obvious example of a tendency to follow one's own immediate interests, an attitude also provoked by continual budget cuts on all levels of government. From the point of view of municipal statistics and partly also of state statistics, there should be a more precise definition of the overall responsibility of the federation for satisfying **the basic statistical needs** of the country down to the lowest territorial level.

The state statistical offices and the federal office have direct or at least indirect access to the individual data of official statistics collected under their responsibility. Municipal statisticians are denied **access to individual data** of national or state statistics, even though they comply with all legal requirements for assuring confidentiality of individual data,. They are confined to published data or to special evaluations that have to be ordered and paid for. But again, these would be highly aggregated to avoid transmission of confidential data so that the municipal bureau has no chance to aggregate the data according to its own needs. In this respect, however, it seems that the Federal Office is in not much better a position vis à vis the states' offices, which provide only aggregated results.

On the other hand, if the state offices need access to individual municipal data, they can refer to state regulations committing the municipalities to forward the data requested.

The state statistical offices have made great efforts to improve general availability of comparable regional statistics, at first on the level of NUTS 3 units, "Kreise", now also, step by step, on the level of municipalities, "Gemeinden". They publish CDs and give access to

this data on the internet using a statistical information system called “**GENESIS**”, that they developed in cooperation with the Federal Statistical Office. National or state statistical data not contained in the standard system described can be ordered, by public institutions as well as by private companies and people. The order would be addressed to the statistical office of the state of residence of the user, that would then organise transmission from all the other states concerned. This valuable statistical information does not go below the municipal level. Here, the municipalities have to rely on what they can produce themselves.

In this context, the newly created research data centres must be mentioned giving researchers access to individual data that are not completely anonymous. It is an open question, if municipal statistical offices, being very often called “offices for statistics and urban research”, can get access to these centres and what would be the territorial references available for their specific evaluation needs.

It may be agreed that the most urgent need for territorially differentiated regional statistics is with the municipalities, which are, after all, responsible for most of public investment and infrastructure for their citizens. The provision of statistical data by the state does not reflect this need, at least not the need of the cities. Municipal freedom to operate their own statistics can barely balance this lack of differentiated comparable statistical data that the state statistical offices would have to provide. Of course, it would cause additional work at the state statistical offices, if they had to assign **territorial references on the sub-city level** to the data they collect. As municipal statisticians are denied access to the individual data, they cannot do this job instead. On the other hand, municipal statistical offices are also reluctant to forward their territorial reference systems to the state statistical offices, because they don’t want them to publish data below the municipal level. It would seem possible, however, to reach more than an informal agreement on this, if the difficult question of “who is responsible for what and who pays for it” could be answered.

4.2 The slowest vehicle determines the speed of the convoy

To bring about changes in the statistical programme, its production and dissemination is certainly easier if there is just one central authority concerned that can decide for itself. The federal system of official statistics requires more or less complicated negotiations and “the slowest vehicle determines the speed of the convoy”. As a rule, the state statistical offices have their own regional priorities, their differing technical equipment and differing capacity, and they are funded by their respective state. There are more prosperous and less prosperous states and some states are more interested in official statistics than others. The pressure to reduce the state’s deficit is not equally strong either. These internal difficulties make it hard to bring about changes, if there is not a strict legal requirement enforcing them. This is one reason why, in the European statistical system, German official statistics is not considered to be the most flexible one.

One would expect that regional statistics is the **state statistical offices’** primary task. This holds as long as there is enough funding for it. Nowadays it seems that in many states it has become difficult to fulfil even the immediate legal obligations, i. e. collect and process the data and feed the results into the system to produce the national results. The only way out seems to be to improve the production and dissemination tools, and this is what the Federal and the state statistical offices have been doing in the past few years. Within the agreed national statistical programme this has also increased flexibility to react to user needs. But

without legal obligation the state statistical offices will not take over new responsibilities or change the programme. New and ad-hoc demand for statistical information on cities can only be satisfied by municipal statistics, if this demand exceeds the programme of federal and state statistics.

What **municipal statistical offices** produce – on a voluntary basis, according to their own needs – does not become part of the official statistical programme. Users must contact the individual cities to get access to this data.

4.3 Territorial references –a distributed task

The state statistical offices are, within each state, responsible for the territorial references down to the municipalities. They report changes of names, codes and territory to the **Federal Statistical Office** that issues a national list of changes distributing it to all the states to make sure, among other things, that the correct codes can be used in migration statistics.

Non-administrative territorial references are provided by the Federal Agency for Building and Regional Planning in close cooperation with the Federal and the state statistical offices.

Sub-city territorial reference systems are the tools of municipal statistics for providing spatially detailed information according to the needs of city planning. The statistics committee of the Association of German Municipalities – “Deutscher Städtetag” - issued standards for a flexible hierarchical statistical reference system that has been established and continually updated in all municipal statistical offices, including the cities of the former GDR. The big cities have also installed GIS tools so that, in this respect, they are sometimes more advanced than some of the state statistical offices. Only exceptionally have the territorial references been exported to state statistical offices, e. g. together with the data collected in the last censuses, in Western Germany in 1987, in Eastern Germany with the housing census of 1995, and in connection with specific projects like the evaluation of income tax statistics in North Rhine Westphalia or for the evaluation of data on employment and unemployment by the Federal Labour Agency.

Municipalities without statistical offices don't provide these reference systems. As they are not essential for the statistical programme of the federal and the state statistical offices, there is, in Germany, no complete and consistent territorial reference system below the municipal level. The official programme of regional statistics stops at the municipal level, even for cities like Munich with a population of 1.3 Mio. inhabitants.

5 HOW TO OPTIMIZE THE SYSTEM OF REGIONAL STATISTICS

A Polish journalist once said when asked what he thought of the relevance of the tasks fulfilled in the municipal statistical office of the city of Nuremberg :”**There is no democracy without statistics**”. Governments and parliaments need official statistical information to make the best possible decisions for their citizens. In a federal state like Germany, each level of government must be in a position to procure the information needed, irrespective of the needs of other governments. Logical consequence of this basic principle are (at least partly) independent statistical offices on the federal, the state and on the municipal level. The

democratic principle requires them to make their statistical results accessible to the public. In this respect, the German system of official statistics cannot be criticised.

What has been said before, however, showed some essential shortcomings of the system that can, to a certain extent, be attributed to an **exaggerated independence and lack of cooperation and permeability**, at least between the municipal and the state level. If it is agreed that the municipalities, their governments and their councils represent some of the most important demand for regional statistics, the question is, how to create a structure that would allow a better use of the information potential of federal and state statistics. On the other hand, the potential of municipal statistics might contribute to official statistics of the state and the federal level in a better way than this is the case today. This would not only increase the information potential as a whole but also improve the quality of official statistics and make better use of the limited resources.

In a democratic federal state with the division of powers as in the Federal Republic of Germany, it is essential to **organise cooperation** in such a way that the freedom to manage one's own affairs is not constricted more than absolutely necessary and that synergies can be used to a maximum degree. This can best be achieved, if regulations are in harmony with the justified interests of all parties involved. Some important aspects to be considered are

- a common understanding of and responsibility for the principles of official statistics
- agreement on the specific competence of the partners in the system and their common use
- agreement on a common statistical programme
- funding and the legal basis.

All partners on the different levels of government must agree to be part of the national system of official statistics. There are **general principles of official statistics**, like institutional and professional independence, methodological and data quality, comparability, transparency, public access to official statistical results and confidentiality of individual data, that **must be formally accepted by all partners**. Statistical standards assuring the same quality and comparability require continual negotiations. They should be agreed and not just set "from above". Once agreed they must be controlled, and this should be the responsibility of all partners.

The partners on the different levels will only give access to their data bases if they can be sure that the other **partners respect their sphere of interest**. Knowledge means power and the states as well as the municipalities try to avoid too specific interference "from above" in their sphere of competence. In practice this could mean – as informally agreed between state and municipal statistical offices in Germany– that state statistical offices will not publish, for individual territorial units below the municipal level, more than an agreed standard set of information. Joint publications are a possible solution in cases where there is a need for them.

But these agreements should not, as they do today, prevent an adequate use of the information potential in the whole system. **Access to the individual data** is necessary to extract problem-oriented information. Standard statistical tables can only give answers to questions that have been thought of before. New questions, however, require new evaluations and these must be facilitated within the structural network of official statistics. A basis for this could be agreements as described above, essentially protecting the respective spheres of interest.

More and more statistics make **use of registers** (population registers, registers of business enterprises and public institutions, of employed and unemployed, of buildings and dwellings). It is essential that these registers are complete, correct and up-to-date. This can best be controlled on the local level, where a continual stock-taking can be organised at minimum cost and many different sources of information can be combined to see where there is need for corrections. **To make extensive use of local expertise** is therefore an essential feature of an optimally organised system of official statistics, not only but especially in the interest of regional statistics. The statistical offices should, by law, be given access to all administrative registers relevant for statistical information and they should be responsible for constructing and maintaining the reference systems to guarantee, at any time, their relevance, their completeness and correctness. This is of special importance for the system of **addresses identifying the spatial location of statistical units**, and it **should be available on the municipal and on the state level**. The state, however, should publish territorial references below the municipal level only as a joint product with the municipalities.

Nobody wants to give away for free, what had to be funded out of one's own budget. The cooperative system of official statistics should therefore be based on a funding system that keeps the financial burden in balance with the respective interests and responsibilities of the partners. The responsibility of the federation for the fundamental statistical knowledge base must not be forgotten. An important precondition is a periodically updated agreement on the standards, the division of labour and a common statistical programme. If a partner has extra needs he has to fund them out of his own budget. It is not a new message, however, that providing the necessary funds will enhance agreement on new tasks. Legal regulations cannot replace funding. But if they are accompanied by adequate funding they can minimise friction and are thus an important basis for an effective system of official statistics on all levels.

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