Handbook of good practices

INTRODUCTION

The aim of this handbook is to bring to general attention the practices which various countries have established or are in the course of developing for making effective use of administrative sources for business statistics purposes. Eurostat believes that this exercise will be helpful for all countries of the European Economic Area which are considering how best to meet the business statistics requirements of the European Statistical System.

Various attempts have been made from time to time to define administrative and statistical sources and thus to demarcate them from each other. In some countries, statistical sources are those associated with activities in the official statistical programme or else the difference between statistical and administrative activities depends on the official body which regulates the form of the documentation for each of them. However, no succinct definitions of either seem to fit all the particular circumstances of different countries.

The Canadian statistician Brackstone wrote more than ten years ago that "it may be less important to have a watertight definition than to have an understanding of the features that distinguish administrative data from data from statistical sources in the context of statistical use."
He suggested that the features in question were as follows :

I. The agent that supplies the data to the statistical agency and the unit to which the data relate are different (in contrast to most statistical surveys);

II. The data were originally collected for a definite non-statistical purpose that might affect the treatment of the source unit;

III. Complete (100 per cent) coverage of the target population is the aim;

IV. Control of the methods by which the administrative data are collected and processed rests with the administrative agency.

Brackstone commented that "each of these features affects the character of administrative records and has implications for the way administrative records are used within a statistical system". [1]

The above approach is an illuminating one but it leaves open the question of what constitutes an administrative agency. This is particularly important in the current European context because the boundaries between public administration and other institutional units in the economy are becoming less distinct. Some European countries are in any case drawing on sources located on both sides of the boundaries.
Administrative sources are for present purposes, probably best defined very broadly as sources containing information which is not primarily collected for statistical purposes.
Taking account of the sources known to be used in various EEA countries, they include the following:

1. Value Added Tax data
2. Personal Income tax data
3. Business (including Corporate) Taxation data
4. Social Security data
5. Business registration and administration records
6. Published business accounts
7. Records held by Central Banks
8. Records (other than VAT) held by Customs and Excise Authorities
9. Records of non-domestic consumers held by public utilities
10. Records held by regulators of e.g. public utilities and financial services
11. Records held by associations of employers, of employees and of businesses and professions
12. Records held by other private sector bodies, e.g. credit-rating agencies.

The **business statistics purposes** for which administrative sources may be intended can be defined rather more precisely. These refer to the Commission's requirements of statistical information relating to businesses which are classified to Industry and Construction (NACE Rev.1, Sections D,E and F). Businesses of all sizes are in scope but small and medium-sized enterprises (SMEs) are of particular interest. The information required concerning businesses of all sizes is in terms of the units and variables specified in the Council Regulations relating to Business Registers, Structural Business Statistics and Short Term Statistics. Over the years, interest in using administrative sources for business statistics purposes has fluctuated considerably.

It is well known that administrative sources have traditionally provided the starting points for official statistical systems in all European countries. Government departments often created statistical offices to collate and analyse information collected as part of their departmental responsibilities. In some countries, the activities of these departmental statistical services were eventually absorbed into centralised National Statistical Institutes (NSIs). In other countries, the departmental services have maintained (or have in time re-asserted) their separate existence and operate in varying degrees of partnership and co-ordination with the NSI.

Many official statistical services began from the 1940s onwards to make more and more use of mathematically-based sample survey methods for collecting statistics, especially from businesses. Governments at this time started to operate demand management techniques for steering their national economies within the new framework of national accounting. Economic policy makers therefore developed needs for business statistics which were timely, reliable and conceptually appropriate for use in the production accounts of the new framework.

In due course, results from statistical surveys came to predominate in meeting these needs in many countries because they could be purpose-designed and were cost-efficient. Additionally, countries which already had well-established censuses of production could use the comprehensive structural data from these to benchmark the survey results.

Even in countries which have developed business survey methodology to a high degree, administrative sources have nonetheless continued to feature in the business statistics system to some extent. The activities of constructing and maintaining statistical business registers, reinforced by the Council Regulation on the subject, indeed depend on the comprehensive kind of information that administrative sources alone can provide. One administrative source

found long in statistical use for these purposes everywhere in the European Economic Area is Value Added Tax. Another source in widespread use is represented by the annual income declarations that businesses make to the fiscal authorities. Such declarations are particularly valuable when they can also be used as sources for calculating structural variables and this is evidently the case in countries where a General Accounting Plan exists. Some countries have also been at work for some time on opening up the great potential of a third source, namely social security records.

In recent years, the issue of using administrative sources more extensively for statistical purposes has moved noticeably higher on the agenda in many countries. The seminar organised by Eurostat on this subject in Luxembourg on 15 and 16 June 1997 attracted a large attendance and some of the most interesting papers subsequently published in the official proceedings were about business statistics applications.[2] The reasons for this quickening of interest also come out fairly clearly from the published papers and can be summarised as follows :

- NSIs are trying to meet more exacting demands for business statistics - including those entailed by the European Statistical System - at the same time as they are under pressures to contain their own collection costs and reduce the reporting burdens that statistical surveys place on businesses.
- Rising proportions of GDP and employment are being contributed by small and medium-sized businesses (SMEs), for which sample surveys are often neither easy to conduct nor always efficient as sources for reliable estimation of target variables.
- Recent and continuing advances in information technology have made the large arrays of data characteristic of administrative sources a great deal easier to handle and have opened up new possibilities for linking different statistical and administrative databases.

It has also been acknowledged that greater utilisation of administrative sources is not a panacea for the problems mentioned above and that indeed these sources raise problems of their own that cannot always be answered completely satisfactorily. Problems that readily come to mind here include different coverage, lack of timeliness, inappropriate definitions, wrong activity classifications and poor data quality. Nevertheless, concerted and sometimes imaginative attempts are being made to mitigate or accommodate these problems as the country reports in Part II of this Handbook indicate.

The country reports also indicate that the situation in most countries is not one in which statistical surveys are being displaced substantially by administrative sources. Rather, new uses are being found for administrative sources to supplement or otherwise reinforce results from statistical surveys. In some countries, administrative and statistical sources are being made to interact with each other to their mutual benefit and this is particularly true where "one-stop shops" are operating to streamline administrative procedures for businesses.

The existence of business identity numbers which can be used or linked in both the statistical and the administrative contexts is obviously helpful for this purpose and also for operating the powerful register-based statistical systems that exist in certain countries.

The remaining chapters in Part I of the Handbook identify some broad themes which are relevant to national practices regarding administrative sources. Chapter 2 deals with the legal framework in which administrative sources can be progressively developed at the national level and the Annex to that Chapter sets out the main legal acts associated with the European Statistical System. Chapter 3 discusses issues which should be taken into account when devising administrative procedures to cover transfer of administrative data for statistical purposes.

Chapter 4 is about the methods being used to match data in administrative and statistical systems, whether or not common business identifiers exist in the countries concerned.

Techniques for using statistical and administrative data to add value to each other are described in Chapter 5.

References

[1] G. J. Brackstone: "Statistical Issues of Administrative Data: Issues and Challenges", in "Statistical Uses of Administrative Data -An International Symposium", organised by Statistics Canada, 23-25 November 1987
(Proceedings published by Statistics Canada, Ottawa, December 1988).

[2] “Proceedings of the Seminar on Use of Administrative Sources for Statistical Purposes, Luxembourg, 15 and 16 January 1997" (Eur-Op, Luxembourg, 1997).

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PART I

SYNTHESIS OF SPECIFIC THEMES

THE LEGAL FRAMEWORK

National statistical institutes (NSIs) necessarily obtain their raw materials of data sources from third parties, whether these are individual contributors to statistical surveys or keepers of administrative records. According to their respective missions, the NSIs may also wish to process and analyse the data in particular ways as well as to disseminate the results of these activities to interested parties elsewhere in the government and to the wider public. A legal framework of some kind within which the NSIs can operate is therefore invariably present at the national level. This framework, as it bears on the utilisation of administrative sources for business statistics, is the subject of the present chapter. Countries which participate in the European Statistical System additionally adopt the *acquis communautaire* of legal acts at the European level. The Community legal acts likely to of most relevance here are the subject of the Annex to this chapter. It is worth noting now that the frameworks at both levels encompass more than legislation specifically about statistics. Other legal acts on form and content of business accounts and on data protection and privacy are also relevant even though statistics may be only one of their fields of application.

Every NSI in the European Economic Area is legitimated either by a basic statistical law or by a formal agreement to determine its place and role in the machinery of central government. In turn, many of these legal or formal instruments include provisions for obtaining and using administrative data for statistical purposes. This is particularly true of existing statistical laws that have been revised and new statistical laws that have been promulgated or proposed during the past ten years or so. It is at the same time also true that some NSIs have been able to orientate their national legal frameworks further towards the effective statistical use of administrative sources than other NSIs.

A variety of historical, political and cultural factors might be adduced to explain this situation but such an exercise does not seem very helpful for present purposes. Moreover, the supra-national legal framework of the European Statistical System as outlined in the Annex to this chapter represents a new circumstance which is likely to assume increasing importance for all the NSIs concerned over the coming years. It may instead be more illuminating to think in terms of a process by which the national legal framework can be developed in stages to arrive eventually at the fullest possible statistical utilisation of administrative sources.

For convenience of exposition, the stages in this process can be broadly categorised as “foundation”, “consolidation” and “evolution”. Each stage leads to the next as the legal environment is progressively accommodated to more complex statistical applications of administrative sources. There is a certain logic to this process but it is not an inevitable one. The outcomes in each stage also vary according to the prevailing circumstances of time and place. Moreover, there is no set time-scale for completing the process. Some NSIs have already gone all or most of the way through the stages while others are making progress as and when they can find or make suitable opportunities. Experience does however suggest that it is better to start the process sooner rather than later.

The first stage in the process can be called the foundation stage, in which occur the formal recognition of the NSI as part of the public administration, the identification of

the NSI's tasks and the establishment of the NSI's constitution. The elements of particular relevance here for administrative sources appear to be as follows :

- The powers given to the NSI very often include general rights of access to and use of administrative sources held by other bodies. This is a necessary condition for any further progress to be made although by no means often a sufficient one.
- The NSI needs to be either a separate, high-status government department in itself or else an autonomous part of another department which possesses sufficient authority to support the NSI during any inter-departmental negotiations about accessing and using administrative sources.
- The mission of the NSI and also the status of its directing officers and staff should be framed in terms of their professional independence and impartiality. This is particularly important regarding NSIs that are administratively associated with finance or home affairs ministries also concerned with e.g. collecting taxes or fees from businesses.
- Confidence about the professional integrity of the NSI is customarily reinforced by legislation on statistical confidentiality that prohibits use of data obtained about identifiable individuals or businesses other than for statistical purposes. Most of such legislation was originally framed with respondents to statistical surveys in mind but its generalisation to all data sources, including administrative ones, has been helpful for avoiding problems with data privacy legislation in at least one instance.
- The constitutional arrangements for nearly all NSIs provide for a governing board, consultative council or advisory committee. It can be useful for such a body to adjudicate or monitor the implementation of the statistical programme by using availability of administrative sources as one of its criteria. In at least one instance, a body of this type is also legally enabled to arbitrate in any disputes that may arise between the NSI and custodians of administrative sources.

The foregoing points are straightforward enough in the context of an NSI providing a centralised statistical service as part of the government of a unitary state. However, the statistical services of some EU Member States are to varying degrees decentralised along functional lines (sometimes also with a territorial element) while some of the other statistical services are operating in countries where there are federal or proto-federal systems of government.

So far as utilisation of administrative sources is concerned, an important issue to resolve in both cases is how far it is possible to introduce uniformity into the different laws which may apply in the various parts or levels of the systems. One solution found is to give the NSI (or a central point within the statistical service) the legal power to apply instruments of statistical co-ordination, including statistical classifications and standard methodology, in other parts of the public administration. Another solution, which is relevant in both cases under consideration but particularly so to actual or inchoate federal systems, starts by specifying the division of labour between the statistical offices in different parts of the system. These offices then partake in a common responsibility to identify and develop administrative sources suitable for use at different levels in the system.

This process is assisted by committee structures, which in some cases may also be specified by law. A crucial point is how to ensure that data can move between different parts of the system without legal impediment.
To date, every NSI has evidently put in place the elements of the foundation stage that it judges appropriate to its own situation. In the second or consolidation stage, NSIs attempt to use the legal framework actually to consolidate administrative sources into the resources available to them for producing statistics. The elements involved in this consolidation stage have been assimilated much more so by some NSIs than by others. There is a basic position in which some NSIs are using, or seeking to use, their general powers to obtain information from a few specific administrative sources, often one source for one purpose at a time. The data flows one way only from the administrative source to the NSI and in doing so its content and character remain unchanged. An example here is the use of VAT or another tax-related source to maintain a statistical business register dedicated to statistical purposes.
In contrast, some NSIs are participating with other public or quasi-public bodies in operating complex and dynamic information systems in which statistical and administrative data are interacting on a large scale. Data may be flowing in more than one direction and also between bodies at different levels, changing its content and character as it goes. As an example, the NSI can be operating a statistical business register as part of a network of official registers, defining or re-defining units and assigning statistical classifications to the units for use throughout the network. It is usual for the existence of such a network to have formal recognition in law and the special functions assigned to the statistical business register within the network may also have their own legal basis.
Whatever the scale of the attempted use of administrative sources, there are legal issues to resolve before satisfactory progress is possible. The legal power to require holders of administrative information to render it to NSIs is in practice rarely sufficient by itself to achieve the desired result. This comment is especially true concerning the NSIs which have framed their legal powers in fairly general terms but it also applies to their counterparts in countries where separate legal authorisation is necessary for any given activity of a statistical nature. Some of the legal issues involved are reasonably straightforward and can fall entirely to the NSI. Other issues are more difficult and necessarily involve third parties. All of the issues entail further action of some kind.
In perhaps the simplest case, the wording of the statistical legislation may not be clear or comprehensive enough. For instance, the NSI may have the power to request the information but no corresponding obligation is placed upon the administrative body to supply it. This asymmetry may exist intentionally by reason of the official culture prevalent at a particular place and time. On the other hand, it may simply represent a lacuna that the NSI can no doubt remove by judicious re-drafting at the next convenient legislative opportunity. Again, the statistical legislation may not adequately describe the form, content and intended purpose of the administrative information that is actually required. One way forward is to link administrative data as closely as possible to the specific statistical purposes it is intended to serve and to introduce detailed descriptions of what is required into the statistical legislation authorising those purposes. An example from recent practice is the specification of administrative registers, archives and micro-data as information legally required as part of a census of industrial production and services. An alternative way to the same result which has also been tried in practice is to give the NSI a general power to make supply agreements with holders of administrative data in specific cases. Such

agreements are considered in more detail in the next chapter. With both courses of action, it is also advisable to be as clear as possible about the terms and conditions, e.g. payment, for supply of data that will be acceptable.

A more difficult issue concerns the status of the statistical legislation at the NSI's disposal in relation to other national legislation that may affect the availability of administrative sources. Put briefly, there can be a conflict between statistical legislation seeking administrative sources for statistical purposes and administrative legislation which prevents the use of administrative sources other than for the administrative purposes originally intended for them. Some of the NSI's that have encountered this difficulty in recent years have worked closely with the custodians of the administrative sources concerned to introduce the necessary changes into the administrative legislation. Concomitant changes have also been made to the statistical legislation, again to facilitate and improve the terms and conditions for supply of the data. Inevitably, however, these outcomes take some time to achieve and they may not be negotiable for certain types of administrative data. Fiscal authorities in some countries are, for instance, resistant to disclosure of personal income tax records other than for the statistical purposes of their own departments.

A related issue is about the impact of data protection legislation. More precisely, there is a distinction to be made between legislation for the protection of data about identifiable individuals, businesses and other entities and laws about the protection of individual privacy.

The first type of legislation is essentially about permissible practices in handling data and the circumstances in which such data may or may not be disclosed to third parties. The second type of legislation essentially obliges "data controllers", including NSIs, to consult with "data subjects" about the nature, processing and intended purposes of any data held about them, suppressing or modifying such data as the subjects may wish.

In the first " data protection" case, it is usually possible to mitigate the possible impact of the legislation on using administrative data for statistical purposes. This is because it is quite usual for the legislation either to give explicit recognition to a special position for statistical purposes or else to incorporate procedures for obtaining dispensations from the data protection authorities. Factors that are known to be helpful here are the existence of tried and trusted statistical confidentiality legislation and the general publication of codes of practice about data disclosure to third parties, including by the linking of databases. The second, "data privacy" case is less tractable and, in principle, only transfer of aggregated and anonymised administrative data may be possible. The impact in practice evidently depends on how the case law develops.

A special case arises with persons who are trading by themselves, typically as "sole proprietorships", when data of a personal nature (e.g. name) exists in identifiable form alongside data about the business. This poses a disclosure issue for all NSIs and especially for those in countries which operate official identity number systems for individuals and for businesses, permitting links to be made readily between the two kinds of entity. One solution is to co-ordinate legislation, including statistical legislation, so that the two types of identity number can be used for *bona fide* statistical purposes. Another, less formal, solution may be possible in practice when there are good relationships of mutual trust between the statistical and the data protection authorities. This is to make a separation of the "legal" operational characteristics of the owner's business from the owner's own "natural" characteristics on a case by case basis. Experience in some countries suggests that the data protection

authorities tend to examine proposals for statistical use of administrative data about natural persons more rigorously than similar proposals concerning legal persons.
The final stage in the process of adapting the legal framework as suggested in this chapter is the "evolution" stage. This differs from the earlier stages in that the NSIs that have reached it have created legal opportunities to change the form and content of administrative sources in ways making these more useful for statistical purposes. Actions at this stage may be limited to making proposals for re-defining, extending or otherwise changing a few fields in the record structure of an existing administrative source.
At the other end of the scale, the NSI may be seeking substantial and long-term participation in the development or re-development of complete administrative information systems with a view to maximising their statistical aspects.
Examples of legal powers relevant to this stage are not as yet general among EEA countries but some of the basic statistical laws that have been amended or re-cast in recent years have made provision for them. In one variant, the NSI has the right to be consulted about any proposals on the future form of administrative information systems and the administrative bodies concerned is obliged to accept any reasonable opinions and recommendations that the NSI may make. In another variant, the NSI in effect assumes the position of monitoring all development activity on information systems throughout the administration and has the right to determine whether and how such systems should be adapted to serve as the basis for official statistics. To ensure effective implementation of the monitoring system, it is also provided that the NSI should maintain an inventory of administrative development proposals on the basis of reports made by the administrative bodies responsible. Whichever the variant adopted, it is in fact vital that the NSI should be informed about any proposed development in good time to take worthwhile action.
It is also the case that legal provisions, however well they are drafted, can only amount to a starting point for any co-operation between the NSI and the developers of administrative systems that subsequently takes place.

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SOME COMMUNITY LEGAL TEXTS RELEVANT TO THE USE OF ADMINISTRATIVE SOURCES FOR BUSINESS STATISTICS PURPOSES

Various pieces of Community legislation are relevant to the use of administrative sources for business statistics. The legislation that has been promulgated can also be categorised as acts primarily of a statistical character, acts on the form and content of company accounts and acts relating to data protection. Eurostat produced a useful compendium of legislation relating to the first two categories, "Legal Texts Relating to the European Business Statistics System", in June 1998.
The purpose of this Annex is to identify and summarise the legal acts most likely to be relevant for using administrative sources to make Community business statistics. Included below are acts that facilitate the use of administrative sources together with those that may affect the way in which administrative sources can be used. Both of these aspects may sometimes be present in the same act.

Statistical Legislation

A. General Applications

The primary reference of general application is **the Council Regulation (EC) No 322/97 of 17 February 1997** on Community Statistics, the so-called "Statistical Law" or, as it is often abbreviated, the "CRCS Regulation".

- Chapter I, Article 1, provides a legislative framework for the "systematic and programmed production of Community statistics". Responsibilities for producing the statistics are allocated in accordance with subsidiarity between national authorities at national level and Community authorities at Community level. The requirement is specified that the statistics thereby produced should meet uniform standards and, where appropriate, should result from harmonised methods.
- Chapter III lays down six principles to follow in ensuring high quality of the results required. As expressed in Article 285 of the proposed text on **the Consolidated Treaties on European Union**, " the production of Community statistics shall conform to impartiality, reliability, objectivity, scientific independence, cost-effectiveness and statistical confidentiality; it shall not entail excessive burdens on economic operators."
- Chapter V prescribes in Article 16 that "in order to reduce the burden on respondents.-. the national authority and the Community authority shall have access to administrative data sources, each in the fields of activity of their own public administrations -.The practical arrangements and the limits and conditions for achieving effective access shall be determined where necessary by each Member State and the Commission in their respective spheres of competence."
    - This significant statement is made in the context of other provisions in

Chapter V, which deal with statistical confidentiality. Among these provisions, it is stated in Article 14 that "transmission between national authorities and between national authorities and the Community authority of confidential data which do not permit direct identification may take place to the extent that this transmission is necessary for the production of specific Community statistics".

- Article 15 adds that "confidential data obtained exclusively for the production of Community statistics shall be used...exclusively for statistical purposes" unless respondents have unambiguously agreed to its use for any other purpose.
- Article 16 also says that "the use of confidential data obtained from administrative sources by the national authorities or by the Community authority for the production of Community statistics does not affect the use of the data for the purposes for which they were originally collected".

- Chapter VI, article 20 assigns a broad competence "for the adoption of the measures necessary for the implementation of Chapter V" to the Committee on Statistical Confidentiality set up by **the Council Regulation No 1588/90 of 11 June 1990 on the transmission of data subject to statistical confidentiality.** Article 2(1) of Regulation No 1588/90, which had effectively left Member States to use their own methods of identifying the confidential data in question has been replaced by Article 13 of the CRCS which defines confidential data in terms of the "objective" criterion of direct or indirect identifiability by a third party of statistical units containing individual information. However, an exception is made in Article 13 in that "data taken from sources which are available to the public and remain available to the public at the national authorities according to national legislation, shall not be considered confidential."

B. Specific Applications

Sources for the creation and maintenance of statistical business registers are dealt with in **the Council Regulation (EEC) No 2186/93 of 22 July 1993 on Community co-ordination in drawing up business registers for statistical purposes**.

- Article 7 of this Regulation states that " each national statistical institute shall be authorised to collect for statistical purposes information covered by this Regulation which is contained in the administrative or legal files compiled on its national territory, in accordance with the conditions determined by national law."
- Article 5, which covers updating of entries in the business register as well as of specified information held for legal units and enterprises, also lays down " a general rule (that) information obtained form administrative files or annual surveys shall be updated annually."

The Business Registers Regulation requires business registers to consist of information held in respect of three types of unit. These are *enterprises* engaged in economic activities contributing to Gross Domestic Product at market prices; *legal units* responsible for these enterprises; and *local units* dependent on these enterprises. The Business Registers Regulation is thus directly related to two other statistical Regulations that precede it.

One of these Regulations is **the Council Regulation No 696/93 of 15 March 1993 on the statistical units for the observation and analysis of the production system in the Community**.
This "Statistical Units" Regulation defines the units specified in the Business Registers Regulation as well as others, including *the institutional unit, the enterprise group, the kind-of-activity unit (KAU), the local unit and the local kind-of-activity unit (local KAU).*
The Business Registers Regulation also has a direct operational link with the **Council Regulation No 3037 of 9 October 1990 on the classification of economic activities in the European Community** (later amended in minor detail by **the Council Regulation No 761/93 of 24 March 1993** with the same title). The classification in question, *NACE Rev.1*, is required to be applied either directly or through the medium of a strictly compatible national activity classification to all statistics compiled for Community purposes at the national level as well as at the European level. It follows that the activities of the units defined in the Statistical Units Regulation, including those also specified in the Business Registers Regulation, must be classified for Community purposes in conformity with NACE Rev.1.
According to the Annex of the Statistical Units Regulation, all the activities of a unit that are not ancillary activities are ranked by the gross value added (GVA) that each of them generates. A distinction is made between principal and secondary activities. If one activity accounts to more than 50 per cent of total GVA, this activity determines the classification of the unit. If information on GVA is not available, other information on, for example, employment, payroll, turnover and assets may be used to get the closest possible approximation to a GVA-based outcome.
The legal acts of immediate concern for the compilation of actual Community statistics themselves are **the Council Regulation No 58/97 of 20 December 1996 concerning structural business statistics** (the "SBS Regulation") and **the Council Regulation No 1165/98 of 19 May 1998 concerning short-term statistics** (the "STS Regulation"). Article 6 (3) of the SBS Regulation says that "in order to reduce response burdens, the national authority and the Community authority shall, under the limits and conditions fixed by each Member State and by the Commission in their respective spheres of competence, have access to administrative data sources covering the fields of activity of their own public administrations to the extent that these data are necessary to meet the (specified) accuracy requirements..." These requirements are described in Article 7. One requirement is for the data transmitted to reflect the structure of the population of the units laid down elsewhere in the Regulation. Another requirement is for the possibility of a quality evaluation to be made, using information provided by the Member States about benefits of having the data available on the one hand and the collection costs and reporting burdens involved (especially for SMEs) on the other.
Provision for such a quality evaluation is also written into the STS Regulation (in Article 10) which similarly but more briefly in Article 4 identifies administrative data among the sources from which to compile the required variables. Both the SBS and the STS Regulations in fact provide for compilation using a combination of compulsory surveys and "other appropriate sources" of equivalent accuracy and quality, including administrative data, as well as statistical estimation procedures. Member States are given the possibility of acquiring the necessary data from these different sources, "applying the principle of administrative simplification".

The STS Regulation specifically allows the variables on new orders received for work included in Annex A on Industry to be approximated from business opinion surveys

and for variables on new orders included in Annex B on Construction to be approximated from information on building permits. Both Regulations additionally commend greater utilisation of electronic data collection (and transmission) and automatic data processing.

Legislation on Company Accounts

European accounting standardisation is currently based on **the Fourth Council Directive of 25 July 1978 (78/660/EEC) on annual company accounts** and **the Seventh Council Directive of 13 June 1983 (83/349/EEC) on consolidated accounts**.

Accounting statements prepared under the Fourth Directive must :

- Be audited
- Give a true and fair view of the financial position and profit and loss
- Be published or made available for public inspection
- Consist of a balance sheet and an income statement that contain explanatory notes and comparative figures.

Most of the above requirements in the Fourth Directive also apply to the (group) consolidated accounts that are the subject of the Seventh Directive. The latter Directive says that additionally in consolidated accounts :

- Intra-group profits and indebtedness must be eliminated
- On acquisition of a subsidiary, a figure for goodwill must be calculated
- The assets and liabilities as well as the profits or losses must be included in the consolidated financial statements in full, with interests held by outside persons shown separately (but proportional consolidation is permissible for joint ventures).

The Fourth Directive allows choice between two balance sheet formats and four profit and loss account formats. The choice may be reserved to Member States themselves or may be delegated at the Member States' discretion to individual companies. The balance sheet can be presented either horizontally or vertically, as can the profit and loss account. Within the two prescribed presentations of the profit and loss account, two classifications are allowed. One classification represents the so-called "functional breakdown", which allocates the expense items under three prescribed functional headings of cost of sales, distribution costs and administrative expenses. The other classification represents the so-called "expense breakdown", which allocates expense items to headings according to the nature of the items such as raw materials, staff costs and depreciation.

Modifications of the reporting requirements under the Fourth Directive are permitted in respect of small and medium-sized companies. Company size is determined from the three criteria of value of turnover, number of employees and balance sheet total, lower levels being set for small companies. To qualify, a company has to satisfy any two of these criteria. Member States may exempt small companies from publishing their profit and loss accounts and from being audited while medium-sized companies may be allowed to publish an abridged profit and loss account and be exempted from publishing other information.

The Fourth Directive also deals with valuation rules by setting up some basic concepts such as the "going concern" basis, prudence and the matching of income and

expense items. Regarding valuation, the Directive concerns itself primarily with the rules relating to historic cost accounting. Some departure from historic cost is, however, permitted under certain conditions when either the replacement value method or other methods taking account of current values may be used.
The Fourth and Seventh Directives were originally designed to serve as components of a framework of company law for the Community. **The Commission Recommendation of 13 September 1995 on the use of the statistical classification of economic activities in the European Communities for breaking down net turnover by type of activity (95/377/EC)** provides for companies to apply the NACE Rev. 1 classification in their accounts.
It remains, however, that the form and content of Community legislation on company accounts is likely to evolve primarily by taking heed of developments in the international accounting environment. Such developments, for instance a possible shift from the expenses breakdown towards the functional breakdown in profit and loss accounts, may not always be helpful for statistical purposes.

Data *Protection* Legislation

The act of concern here is **Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data**. Member States are required to "bring into force the laws, regulations and administrative provisions necessary to comply with the Directive" no later than three years from its adoption.

- Article 1 of the Directive expresses the intention that " Member States shall protect the fundamental rights and freedoms of natural persons, and in particular their right to privacy with respect to the processing of personal data".
- The definition of personal data in Article 2 is in terms of an identified or identifiable natural person, described as a "data subject". Identifiability can be, among other things, by reference to an identification number or to factors pertaining to economic identity.
- The scope of the Directive in Article 3 extends "to the processing of personal data wholly or partly by automatic means"
- Article 12 requires Member States to guarantee that data subjects can obtain information about the nature, processing and intended purposes of any data held about them and that they can, "as appropriate, obtain the rectification, erasure or blocking" of such data.
- However, Article 13 permits Member States to restrict the rights granted in Article 12 "when data are processed solely for purposes of scientific research or are kept in personal form for a period which does not exceed the period necessary for the sole purpose of creating statistics."
- Article 27 states that the Member States and the Commission shall encourage the drawing up of codes of conduct "intended to contribute to the proper implementation" of the Directive at the national level.

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ADMINISTRATIVE PROCEDURES

The formal legal acts discussed in the previous chapter provide to varying degrees a framework for regulating the NSIs access to and use of administrative sources. However, these acts are rarely detailed enough to deal with the precise arrangements under which data from particular administrative sources shall be transferred for specific statistical purposes. Over time, a number of NSIs have developed administrative procedures to cover these arrangements. Such procedures are variously known as « administrative protocols », « service level agreements » or by other titles according to national context.

A few NSIs that are strongly pro-active in the development of administrative sources for statistical purposes are operating large numbers of administrative procedures, sometimes with 60 or more different official bodies. In effect, these countries have policies for managing, monitoring and developing their procedures from a central point. Other NSIs are as yet working with just a few official bodies and in accordance with procedures negotiated bilaterally on a case by case basis.

The actual legal basis for the administrative procedures that are operated varies from country to country but it would appear that such a basis is everywhere necessary in most, or perhaps all, cases. The power to introduce the procedures is sometimes conferred on the NSI by the basic statistical law or by an equivalent quasi-legal framework agreement.

Sometimes again, formal procedures are not actually set up in detail but the data is passed under a written Ministerial direction which as a minimum specifies the data in question and the statistical purpose for which it may be used. Given that statistical legislation in some countries allows but does not oblige the inter-departmental transfer of administrative data, it may not always be possible to reach agreement on a procedure for obtaining every kind of data the NSI might like to have.

Taking account of the procedures actually established in various countries, it would seem desirable that any « model » procedure should cover at least the items as follows :

- The legal basis for the procedure (which may refer not only to statistical legislation but also to other acts regulating the specific administrative source as well as to data protection legislation)
- The names and/or official positions of the persons entitled respectively to transfer the data and to receive it (and, if different, the same information for the persons authorised on the respective sides to conclude the agreement covering the procedure)
- A sufficiently detailed description of the data to be covered by the procedure
- The frequency at which the data is to be supplied
- Agreed standards of the quality that the data should satisfy
- The statistical confidentiality regime to be applied

- Provisions for any payment which may be necessary for supply of the data
- Stipulation of the period during which the procedure is to be in force
- Procedures for dealing with any changes that may be proposed either on the « demand »or the « supply » side, including identification of the circumstances in which re-negotiation of the procedure may be necessary.

All the items mentioned above merit careful attention but the question of payment is likely to be a critical one for some NSIs. The availability of some types of data may in fact depend on the financial arrangements that can be made, particularly if the custodian of the administrative source can reasonably argue that the NSI's particular requirements entail extra expense. This is obviously a problem when, as is often currently the case in many countries, the NSI is short of money.

The problem is further compounded in some countries by the trend towards re-structuring national administrations to create executive agencies with greater operational responsibilities for managing their own budgets. Potential sources of administrative data may become fragmented and the individual agencies may only want to make their data available as commercially saleable products.

A number of courses of action have been tried with some success in response to this situation. First, the national legal tradition may permit an interpretation that the existence of a basic statistical law empowering the NSI to obtain administrative data constitutes an entitlement to receive the data free of charge. Secondly, the NSI is often in a position to offer its expertise in information management and analysis to administrative bodies in exchange, either wholly or in part, for the data it needs. Thirdly, there may be important potential customers elsewhere in the administration, e.g. Ministries of Finance, for the statistics the NSI hopes to produce from the administrative source in question. The NSI might then be able to persuade such bodies to intervene on its behalf. Alternatively, a formal arbitration procedure may exist, or can be created, at a higher level to deal with cases of this kind.

The issue of quality of the administrative sources transferred under a procedure also needs to be treated carefully. Many NSIs, and indeed Eurostat as well, accept an obligation in their public mission statements to provide their users with a high quality statistical service. Insofar as the sources for the statistics are under the NSI's own control, the NSI can determine the acceptable standards and put in place appropriate measures designed to achieve these. The NSI obviously does not have the same degree of freedom so far as administrative sources are concerned.

The emerging consensus is that quality is « user-driven » meaning, for instance, that a source is of good quality when it is fit for the purpose that the user intends for it. However, the NSI is neither the only user nor even the main user of administrative sources. The administrative bodies actually responsible for the sources usually apply their own priorities and standards which frequently do not coincide with those the NSI would find satisfactory. Indeed, administrative bodies quite often regard the extra requirements which are sometimes written into administrative records as a nuisance and spend little time on validation work regarding them.

It is therefore highly advisable that procedures for transferring administrative records should provide for some minimum standards that are acceptable to both sides. Such standards might be in terms of the content of records, e.g. the acceptable proportion of records in a given batch containing an incorrect activity classification.

They might also be in terms of timeliness, e.g. the NSI should receive records for a given reference period within a stated number of days following the end of that

period. It is also very advisable that the procedure should provide for some kind of machinery to deal with disputes that may arise about the operation of these standards in practice.

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MATCHING ADMINISTRATIVE AND STATISTICAL RECORDS IN REGISTERS

Many possibilities are now available for putting administrative and statistical records together in ways that add value to both of them for business statistics purposes. A survey of some of these possibilities is attempted in the next chapter. The present chapter deals briefly with the particular issues associated with matching and statistically validating records used in statistical business registers.

NSIs in the European Economic Area are currently devoting much attention to the development of statistical business registers of a central or inter-departmental character. Some NSIs have only recently introduced such registers or are still at work on them. Others have found that their existing registers need considerable overhauls to bring them into line with current requirements. Statistical sources were at one time the principal means used for register maintenance in some countries and these still play some part almost everywhere. However, the predominant part is now usually played by administrative sources because of their comprehensive nature. Most countries have a number of administrative sources at their disposal from, for instance, tax administrations, chambers of commerce and social security agencies. It is rarely the case, however, that any one of these sources is by itself sufficient for business register purposes.

The legal acts at Community level of most relevance here are the Council Regulations on Business Registers and Statistical Units. The Business Registers Regulation does not lay down the purposes that such registers should serve but all the statistical business registers currently existing or under construction in the EEA are in practice designed to include some basic features as follows :

- A list of names and addresses for mailing questionnaires
- A frame for selecting samples of businesses included in surveys, sometimes operated in conjunction with facilities for co-ordinating and controlling survey programmes
- A population of statistical units itemised as individual records containing identifiers, activity and size classifications and various items of "performance" data for use in generating business demographics and in grossing-up information from survey returns.

For some countries, these features constitute no more than a starting position. The business registers in question are seen as key components of systems of statistical and administrative databases which are intended to generate a range of social and economic data, including business statistics. One aim, which is carried furthest in so-called "register-based statistical systems", is to create new data resources to supplement or substitute to some degree for statistical surveys. This aim is sometimes associated in certain countries with another aim, which is to integrate statistical business register operations with the workings of various administrative registers also concerned with businesses.

The idea is to bring about a unified and simplified regime for the official transactions that businesses are obliged to make with the authorities by, say, operating a "one-stop shop". Only a few countries have so far made progress with the implementation of

this idea but a number of other countries are currently looking at it. There are some obvious attractions not only from the point of view of reducing business reporting burdens but also because of the possibilities for introducing statistics-friendly standardisation into administrative processes.
Despite its silence about purposes, the Council Regulation is specific that the units in business registers should consist of the enterprises that contribute to GDP, the legal units responsible for these "statistical" enterprises and the local units that depend on such enterprises. Other statistical units as defined in the Statistical Units Regulation are also in use or in view at Community and national levels.
The kind-of-activity unit (KAU) features in the Council Regulations on Structural Business Statistics and Short Term Statistics. Various countries are also using for their own purposes two other statistical units, the enterprise group and the local KAU. Some countries have even created additional statistical units of their own below the enterprise level. Their reasons for doing so have been to introduce clear distinctions between statistical units and legal and administrative units that exist at the local level. At least one country produces detailed employment and earnings statistics by linking the two types of unit.
Statistical business registers were at one time seen as a necessary but low-level part of the activities of many statistical offices and professional attention was concentrated on surveys. Nowadays, the demands placed on such registers are of an increasingly higher order and many countries regard registers as important resources in their own right for producing statistics. Correspondingly more is therefore expected concerning the quality of the sources employed to construct and maintain registers. This faces NSIs with the need to solve two main problems.
The first problem arises from the fact that registers can only usually be made comprehensive in their coverage by calling upon several different sources. The contents of the records in these sources may differ in concept and even if the concepts are similar, there may still be important differences in detail. The register needs to be not only comprehensive but coherent as well. How to put together the different sources to create a register with both these desirable properties can be called the "matching problem."
Furthermore, comprehensiveness and coherence are not the only properties required of a statistical business register. To be fit for its intended statistical purposes, the units held in the register must evidently include correctly defined statistical units. How to determine these statistical units in the register and also clearly distinguish them from legal and administrative units can be called the "statistical validation problem".
Both problems are formidable ones because they have to be solved not once but many times over - or even continuously - in order to keep a usable statistical business register functioning. In small countries, the records needing to be matched can run into tens or hundreds of thousands while in large countries many millions of records can be involved.
The abundance of administrative data means that some NSIs have to manage data flows with care and decisions must sometimes be made to examine the data only at certain times. In practice, the matching and the statistical validation problems usually have to be tackled together in the same set of operations. The two problems are related but it is as well to remember that they are conceptually distinct.
Among the various administrative sources available to NSIs, the commonest and most significant ones appear to be as follows:

- **Registers of chambers of commerce and national business registration authorities**

These are often the primary sources for information on legal units. They can also contain information relating to local units, "establishments" or even to undefined individual members. Coverage may be limited to particular legal forms of business and to only some industries. Members of liberal professions and self-employed people in general may not be obliged to register. On the other hand, owners of businesses in scope may have possibilities for registering a variety of businesses under the same registration numbers. In some countries, these registers have been the only feasible sources of information on business start-ups, closures and other changes in structure and activities.

- **Declarations and returns for Value Added Tax (VAT)**

  These cover legal and natural persons liable to pay VAT, thus providing for some countries evidence of the existence of legal units and often of enterprises. Construction of enterprise groups is also sometimes possible. Some VAT systems are very comprehensive but others exempt businesses below certain thresholds and those operating in certain trades. As with some other forms of taxation, it is often possible for a group of businesses to be registered under one number. In some countries, links exist in principle between VAT registration numbers and other registration number systems for legal and (sometimes) natural persons. The potential of this source for information relating to the short term is considerable.

- **Employers' returns of tax and social security payments deducted for employees**

  These can relate to enterprises, "workplaces" or "pay points". An employer may sometimes have several registration numbers. As with VAT, there are sometimes exemptions based on thresholds and trade of the employer. The concept of "employer" may not always relate well to that of "business". Information in the returns about numbers of employees and their earnings may not correspond to the equivalent information from surveys. By definition, the returns cover "employees" rather than "persons employed". Despite these drawbacks, sources of this type are still very comprehensive and are usually of good quality.

  The work of bringing these and other administrative sources together for constructing records in statistical business registers is often very resource-intensive. Some countries have developed systems of common business identifiers or else operate various official registration number systems that can readily be linked. Incidentally, the existence of a common business identifier does not necessarily mean that it is the sole official numbering system in use. Many official bodies, including statistical offices themselves, often want to retain other numbering systems for their own particular purposes.

  For countries which have common or linkable registration number systems, the work of filtering records is undoubtedly more straightforward than for other countries which do not have such systems. Experience suggests, however, that the lack of such systems does not prevent the work being attempted with at least some chance of success. Some countries have been able to use commercial software packages to do an appreciable proportion of the necessary work to match names, addresses and contextual information for candidate units in the different sources. Computerised look-up tables are similarly available to help with correct statistical classifications of the units.

It must all the same be admitted that a good deal of clerical work may still be needed and that, as a last resort, direct statistical inquiries may have to be made to units remaining in question. Other countries may not find these actions either practicable or affordable.

Perhaps the most useful piece of advice to offer for dealing with both the matching and the statistical validation problems is to proceed in accordance with a clearly defined strategy. Following elements of the practice of one EU Member State that has formulated and worked through such a strategy, it seems advisable to make some rules to cover specific issues as follows:

- Coding rules, for standardising codes used in different administrative sources for such things as economic activity, legal form and geographical location;
- Linking rules, for converting units in administrative sources to exact or approximately equivalent statistical units;
- Conversion rules, for estimating values of statistical variables from what administrative information is available, e.g. breaking down "total persons employed" into "employees" and "self-employed persons".

It is also very important to construct records in the register in such a way that the same unit does not in effect appear more than once. A serious consequence of such multiple entries is overestimation in sample surveys based on the register. There are no easy answers to this problem and even the identification and quantification of the problem can require considerable work. One EU Member State has, however, recently tackled the problem effectively with the aid of data confrontation techniques.

It is equally important to deal with units that appear to be identical but actually are different. The serious consequences here are for the countries which operate statistical business registers as parts of official register networks using common business identifiers such as "organisation numbers". As an example, a failure to discriminate can lead to an employer being registered with a workforce belonging to somebody else.

Finally, something should be said about the "statistical validation" problem. Failure to deal with this problem satisfactorily can also lead to bias in surveys based on the register. The root cause of the problem is that the register up-dating procedures in may countries rely on administrative sources which are good for identifying births but much less good for notifying closures or temporary cessation of activity. Many countries accordingly devote considerable effort to sifting legal units to find the ones that are genuinely economically active and hence can be regarded as statistical units. Examination of as many administrative sources as are available can be very helpful but not necessarily conclusive for this purpose. For instance, the existence of a new legal unit may be notified by a company registration office and as soon as the unit registers for VAT, business taxation and as employer, it will be deemed to be economically active.

On the other hand, the observation subsequently that the unit no longer pays VAT or has any employees does not necessarily mean that the unit is dormant or effectively dead. The business could have shifted to VAT-exempt activities or the owner may be running the business by himself. Conversely, the continuing presence of the unit in the company register is not necessarily evidence of activity as the business may have ceased trading but financial claims are still pending.

The only sure way that some NSIs have found to get the necessary information is by register proving surveys. These surveys are expensive for some countries and hence are often only carried out for businesses with more than one local unit or else where employment is thought to be significant. Administrative sources therefore usually continue to be the prime sources for businesses consisting of single local units.

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ADDING VALUE WITH ADMINISTRATIVE AND STATISTICAL SOURCES

This chapter is a brief survey of the ways in which countries of the European Economic Area are using administrative and statistical sources for compiling business statistics in ways that add value. As was indicated in the Introduction, statistical surveys continue to play a leading role in business statistics systems almost everywhere but applications for administrative sources are growing in number and scale. Of particular interest is the prospect that administrative sources offer for production of statistics that are likely to be beyond the capabilities of statistical surveys alone. The situation in many countries is therefore increasingly one of partnership between the two types of source. National practices are described in detail in Part II of this Handbook and some examples of imaginative combinations of administrative and statistical sources are to be found there. The present chapter highlights the different general approaches that are being tried and draws attention to the possibilities for the two types of source to interact in ways beneficial to them both.

Three administrative sources were mentioned in the previous chapter concerning business registers, namely information from business registration authorities, registrations and declarations for VAT and employers' returns of tax and social security deductions for employees. The latter two sources also feature prominently among the sources used to compile business statistics but in this context a third source also deserves particular mention, namely declarations of business income for tax. All three sources either separately or in combination are used in different countries for a variety of purposes.
As an example, the purposes for which the VAT source is in use or in view in various countries include the following :

1. As a source of legal units for registers
2. As an indicator of economically active units
3. As building blocks for constructing statistical units
4. As a size indicator for units, using VAT turnover
5. As a sample stratification variable
6. As a means of balancing samples, using detailed activity classifications based on VAT turnover
7. As input to survey data validation procedures, e.g. by test ratios of turnover per head
8. As a base for imputation of values for survey non-respondents
9. As a universe for grossing up survey returns
10. As a variable for grossing, using turnover
11. As a basis of estimation regarding small and medium-sized enterprises (SMEs) not included in surveys As a basis for calculating regional breakdowns of national results, using breakdowns of turnover

12. As a basis for evaluating survey results, using comparisons of VAT and survey turnovers
13. As direct input to annual and quarterly national accounts, using aggregated turnover and breakdowns for domestic and foreign consumption
14. As direct input to series of external trade statistics
15. As direct input to calculation of monthly sales indices

Cases where administrative sources provide the only sources for given business statistics are actually quite rare although one example found in several countries is the use of building permits to compile statistics of new orders for building and civil engineering work. One country is also currently looking at the possibility of using VAT data as its future source of key short- term statistics.

More commonly, however, administrative sources are being used to improve the efficiency of surveys and to enable concentration of expensive survey resources on the larger businesses that tend to have complex reporting structures. Some countries are streamlining their structural business surveys and intend to rely on estimation techniques using administrative sources for most or all of their data on SMEs. One country indeed abolished its structural surveys several years ago, the requisite data now being generated from a register-based business statistics system. This, again, is a rarity at present but a number of other countries are moving towards such a system, taking encouragement from the evident success of the register-based approach in the social statistics field.

The possibility for rationalising structural business surveys usually arises because of the availability of comprehensive and usable accounting data for enterprises. Some countries have operated General Accounting Plans on a mandatory or voluntary basis for many years. These Plans typically provide for standardised balance sheets and profit and loss accounts based on the formats included in the Fourth and Seventh Council Directives on Company Accounts as well for supplementary information to serve particular national needs. NSIs have frequently been involved in the formulation and development of these Plans to ensure their usefulness for statistical purposes. The ideal situation is one in which the accounting treatments used by enterprises themselves, by the business tax administration and by the NSI for business statistics are aligned as far as possible with each other. Several countries have in different ways achieved - or are working towards- alignment in two of these cases or, sometimes, in all three. Enterprises or their agents may render the accounting data to the tax authority, which then passes it to the NSI. Alternatively, the NSI may obtain the data directly by survey. Some countries are involved in development of accounting software packages and of techniques of Electronic Data Interchange to facilitate these processes.

It is a logical next step to put the accounting data, however it is obtained, in a database together with the structural data that continues to be obtained by direct surveys. As the number of standardised accounting headings may easily run into three figures, a good idea in practice is to concentrate in the database on a few dozen items that are common to both the accounting data and the survey returns. The two sources can then be made to complement each other in three ways. First, the coverage of enterprises is greatly extended and the basis for estimation of activity by SMEs is accordingly much improved. Secondly, the quality of each of the two sources can be enhanced by comparing records and filling gaps in both of them.

Thirdly, data on the operational variables collected in the surveys can be supplemented by information on financial variables in the accounting data. In this

way, a very good picture is produced for enterprises of production, employment and earnings, investment in capital formation and financial results.
In principle, there is no restriction on the number of different administrative and statistical databases that can be put together to generate this kind of synergy. It is highly advisable, however, to formulate in a systematic manner any plans that may involve production of statistics from operations in several different dimensions. One EU Member State has decided to produce many of its structural and short term business statistics by combining different registers maintained by chambers of commerce, the tax administration and various social insurance boards. For this purpose, a data model was constructed to schematise the actual contents of each of the participating registers and to simulate the optimal flows between them. This model has proved very useful as an indicator of what needs to be done both for integrating the different registers as a system and for organising and processing the data in them to produce the actual statistics.
As all countries which have reached this stage of development has found, the necessary condition for combining data from the records in different registers effectively is to standardise their units, apply the appropriate statistical activity classifications and as far as possible harmonise definitions of variables. This process is sometimes formally described and conceived as the creation of "statistical register modules". It is an essential element in the realisation of a genuinely integrated system for the production of and management of business statistics. One such system currently under development is comprised of three basic elements. An input database contains mixtures of real and imputed micro- data for business statistics variables, serving as a co-ordination tool for statistical production processes. An intermediate database will hold statistical variables with respect to individual statistical units. Results will then be generated at higher levels of aggregation for storage in a relational database.
The NSIs which are actually or prospectively involved in integrated statistical and administrative register networks will undoubtedly enjoy a comparative advantage in operating business statistics production systems of the kind just described. The responsibilities usually given to these NSIs for determining units, assigning statistical activity classifications and (sometimes) for allocating identification numbers for use throughout the networks are especially helpful in this connection. When the identification numbers are general or linkable with other registration systems in force for legal and natural persons, the way is open (at least, technically) for large-scale production of statistics both cross-sectionally and longitudinally, using registers for individuals, populations, businesses, buildings and other populations. But as mentioned in the previous chapter, it is sometimes necessary to create special statistical units below enterprise level in order to demarcate statistical uses from administrative ones.
Pure register-based systems for production of business statistics are not yet fully in place anywhere but the value of the register-approached for producing social, including socio-economic, statistics has been well documented in certain countries. Additionally, Gaasemyr and Struijs [1] have recently drawn attention to the great statistical potential to be realised from construction of Register-Based Job Files (RJF). These authors define an RJF as "a linked file of centralised administrative data systems of Social Security, Tax and Employment Service Agencies" and identify one of its main advantages for a country as "that it provides the tool for linking data on persons employed with data on businesses". The unit that provides the link is the job, reported from the side of the persons employed in statistical sources such as the

Labour Force Survey and reported from the side of the employers in sources used for business statistics.
In one RJF currently under development, the aim is essentially to construct estimates for "hours worked", "employment", "wages and salaries" and "turnover" from a combination of administrative and statistical sources. The main statistical source is the LFS. The administrative sources are registers respectively for employers and employees, employers' deductions from earnings for tax and (once again) VAT. The approach being used for putting the data from the different sources together is an eclectic one. For instance, one use of the resulting statistics will be for national accounts, for which the LFS is considered to yield better quality employment figures than the register for employers and employees.
However, the register offers much more detail. The statistical source will therefore supply the aggregated totals and the administrative one will be used to break down the totals to sector level and below.

Concluding remarks

In concluding this brief *tour d' horizon*, some comments about the respective strengths, weaknesses, opportunities and threats associated with administrative sources are in order.
Chief among the **strengths** of these sources is their comprehensiveness as compared to most statistical sources. It follows that administrative sources are particularly suited as starting points for statistical registers and for multi-stage surveys of the type now enabled, for instance, by social security registers. Moreover, they are much better adapted for making cross-sectional (e.g. regional) and longitudinal analyses than are statistical sources.
A well-known **weakness** of administrative sources in statistical work is their vulnerability to changes in their controlling administrative regimes. In one EU Member State, controversy about the statistical consequences of changes in rules of entitlement to unemployment benefit seriously damaged the public reputation of the official statistical service. Proposals currently under consideration at Community level about possible changes in the prescribed form and content of accounts may similarly lead to difficulties for a number of EEA countries.
Organisation re-structuring which has recently been done or is under way in some NSIs creates **opportunities** for greater utilisation of administrative sources. In some business statistics directorates, the "pipeline model" which organised collection work on a survey by survey basis is being replaced by a new form of organisation. The various stages of collecting and processing business statistics common to all surveys are being re-allocated to new function-specific units. One consequence of this is to permit re-appraisal of collection methods and consideration of a wider range of sources. Gaasemyr and Struijs [1] have pointed to the particular opportunity offered by constructing RJF to develop closer co-operation between departments for labour statistics and business statistics.
Administrative sources in many countries have traditionally been national in character and nation-wide in scope. Developments have been gathering pace in recent years that could be seen as **threats** to this situation so far as concerns the continuing feasibility of using these sources for business statistics purposes. Administrative fragmentation arising from the deregulation policies pursued in some countries was mentioned in the Introduction. Such fragmentation can, of course, also occur because of decentralisation of central government powers to other parts of the polity.

Decentralisation of this kind is either under way or in prospect in at least three EU Member States at the present time.

Reference

[1] S. Gaasemyr and P. Struijs: "The Role of International Standards in Developing Register- Based Job Files" and "The Role of International Standards in Using Register-Based Job Files", papers presented at The 1998 International Symposium On Employer-Employee Matched Data.

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