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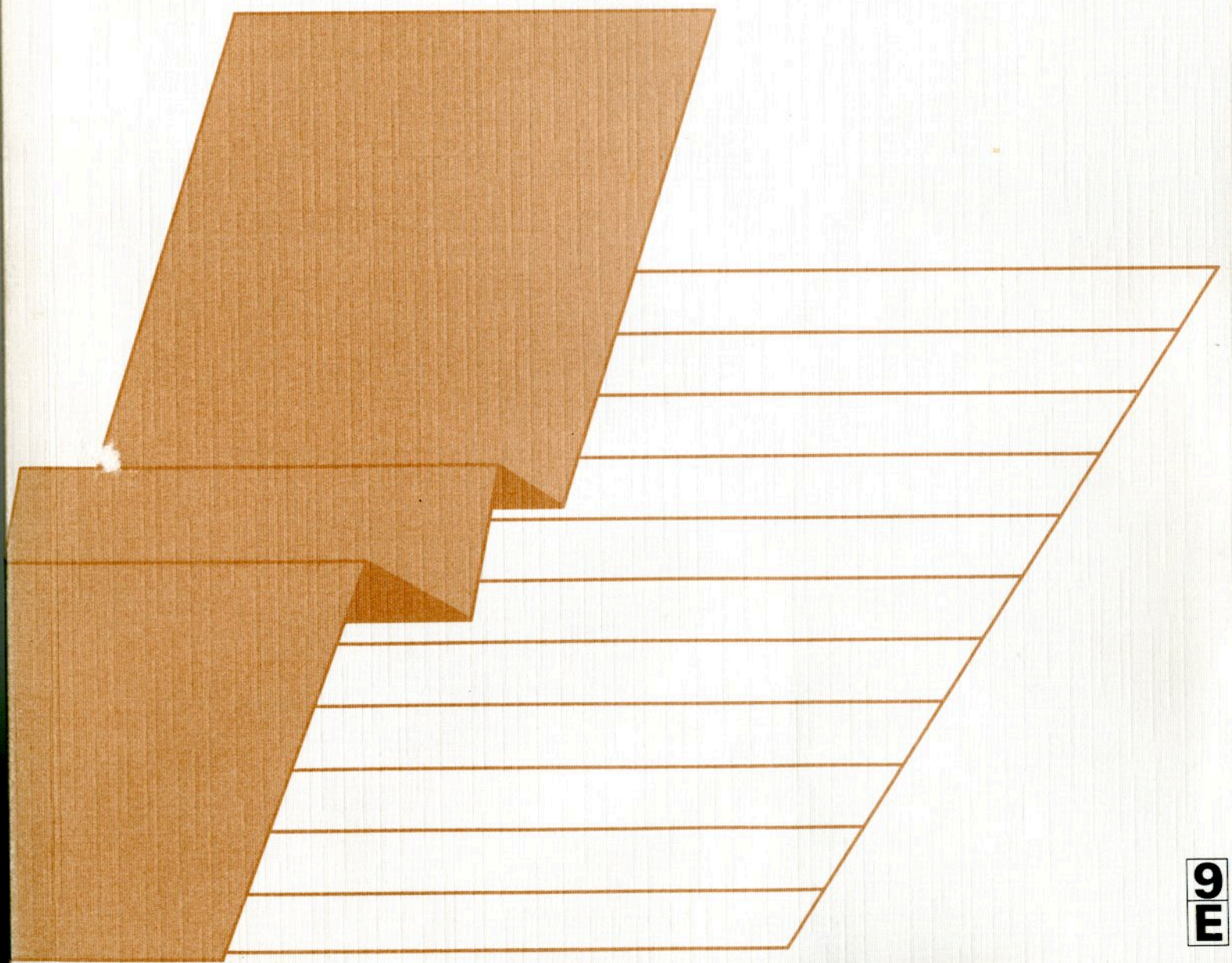
ORGANIZATION OF STATISTICS IN THE MEMBER COUNTRIES OF THE EUROPEAN COMMUNITY

Volume I: Essays on
the 12 national statistical institutes
Comparative study



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STATISTISCHES AMT DER EUROPÄISCHEN GEMEINSCHAFTEN
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The publications proper tend to be compiled for a well-defined and targeted public, such as educational circles or political and administrative decision-[illegible]ers. The information in these docu[illegible]s is selected, sorted and annotated [illegible]he target public. In this instance, [illegible]e, Eurostat works in an advisory [illegible]

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Y. Franchet
Director-General

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Les publications proprement dites peuvent, elles, être réalisées pour un public bien déterminé, ciblé, par exemple l'enseignement ou les décideurs politiques ou administratifs. Des informations sélectionnées, triées et commentées en fonction de ce public lui sont apportées. Eurostat joue, dès lors, le rôle de conseiller.

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Y. Franchet
Directeur général

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Directeur hon. du Statec, Luxembourg

Professeur hon. à l'Univ. Libre de Bruxelles

ORGANIZATION OF STATISTICS IN THE MEMBER COUNTRIES OF THE EUROPEAN COMMUNITY

VOLUME I

1. Essays on the 12 NSIs
2. Comparative study

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PREFACE

Constructing an integrated Community means that the statisticians of the twelve Member States must work together with increasing regularity in order to design and build the statistical information system which will be needed for an integrated Europe to work properly.

This growing interdependence in the Community's statistical work will be achievable only if the builders themselves have a thorough knowledge and understanding of the features of each national statistical system and how it works, what they have in common, and how they differ.

Georges Als is a true professional. He also has the Luxembourger's gift of being at ease in more than one language and culture, thus making him ideally suited to the task of enlightenment represented by this series of essays. As a bonus, his style and humour make fascinating reading of what is really a rather arid subject.

Yves Franchet
Director-General
Eurostat

INTRODUCTION

Despite the recent uncertainties, the Community has in the last few years made considerable progress on the integration of economic and social policies and on environment policies. The culmination of this progress was the signing of the Maastricht Treaty, which marks both the end of an extremely dynamic period in the construction of the Community and a starting point for new objectives.

Those who take decisions on measures for the integration or convergence of Community policies need objective, reliable and comparable data in order to prepare, weigh and assess their decisions. It is Eurostat's task to prepare the ground for the development or even the creation of high-quality Community statistics that are scientifically unquestionable, meet users' requirements, are free of any political pressure from interest groups and use well-established methods and resources.

However, Eurostat is not trying to achieve these objectives on its own; on the contrary, its strategy has always been based on the principle of the closest possible partnership with the national statistical systems, which constitute the cornerstones of the Community statistical system. The architecture of informal and institutional links set up by Eurostat over the years with the national statistical systems represents today a highly original example in the context of building the Community and especially as regards the increasingly integrated organization of the Member States' statistical services.

This integration covers a number of areas.

First of all, it covers survey programmes and harmonized statistics or standards decided on jointly by those in charge of the Community and national statistical systems. Some countries maintain that nowadays their national statistical programme is determined to an ever greater extent by Community requirements, and consider it their right and duty to be directly involved in the decision-making procedures. Eurostat acknowledges this need all the more readily because the burden of carrying out these programmes lies almost entirely on the national statistical systems. In order to meet these requirements for concerted action, Eurostat has proposed to the Institutions (Commission, Parliament, Council) that a set of committees be created to prepare, analyse and decide on the joint statistical projects that constitute the foundation of the Community statistical system.

Secondly, Eurostat has taken initiatives to foster cooperation between the national statistical systems and the Community system on the basis of exchanges of officials or the help that certain Institutes could give others in carrying out work of interest to the Community. One such initiative, which has been well-received by statisticians both within the Community and in Europe as a whole, is the "Training of European Statisticians" (TES) programme, which offers regular cycles of training courses aimed at fostering the cohesion of statistical systems in the Community.

Lastly, Eurostat and the national statistical systems are currently preparing a Community legal act, known as the "statistical law", which is intended to form the basis for all development of statistical cooperation at Community level.

The reason why I have dwelt rather a long time on the main lines of Community statistical policy in recent years and its future objectives is to highlight the fundamental part played by the national statistical systems. Each of them, with its specific features, organization and structures, contributes its own stone to the construction of the statistical apparatus. Moreover, other countries are knocking at the Community's door, and some of them are already associated with the Community in the context of the future European Economic Area.

If the dialogue between statistical systems is to be as fruitful and effective as possible, the partners must know one another as well as possible in order to be able to understand the positions taken by all those involved in joint discussions and decisions.

That is why Eurostat decided to commission Mr Georges Als to carry out this in-depth study of each of the statistical systems in the Community. We hope that the findings of this research, set out in these two volumes, will enable all those who want to know how such and such a system works to find the information they might need.

The statistician's aim is to ascertain the economic and social reality of our society by means of quantitative methods. Each country has set up a system for producing statistics that is in keeping with its history, social structure and government organization. This research highlights these features while trying to draw comparisons between various aspects of the system.

Eurostat hopes that this study, however incomplete or limited it may be, will be useful to those who, outside the Community, are in the process of building up statistical systems that meet the needs of modern societies.

Knowledge of the examples presented in these volumes - which are the upshot of decades or even centuries of democratic societies - may be useful for taking the appropriate decisions.

Alberto De Michelis
Director (acting) Eurostat

I. PART

ESSAYS ON THE 12 NSIs

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ABBREVIATIONS

DGINS	=	Directors General of the NSIs
NSI	=	National Statistical Institute
NACE	=	Nomenclature of Activities in the European Communities
SEC	=	European System of national account

II. PART

COMPARATIVE STUDY

CONTENTS

I. PART

STATISTICAL IMPRESSIONS

ESSAYS ON THE
NATIONAL STATISTICAL INSTITUTES OF
THE TWELVE COMMUNITY MEMBER STATES

BELGIAN STATISTICS : HOW ARE THE MIGHTY FALLEN

CONTENTS

Abbreviations

CSS	=	Conseil Supérieur de Statistique (High Council on Statistics)
IBLC	=	Institut Belgo-Luxembourgeois du Change
INS	=	Institut National de la Statistique
UEBL	=	Union Economique Belgo-Luxembourgeoise

BELGIAN STATISTICS: HOW ARE THE MIGHTY FALLEN

Longe fortissimi sunt Belgæ
Caesar: De Bello Gallico

Of all the countries of Europe, it is Belgium which has done most to inform itself of the consumption and cost of living of an essential part of its population
Ernst Engel, 1895

Belgian statistics had its golden age. Established in the aftermath of the Belgian revolution of 1830, it bore throughout the nineteenth century the imprint of Quetelet's own personality. The present Conseil Supérieur de Statistique (CSS) was established in 1841 under his presidency as the Commission Centrale de Statistique, with instructions to coordinate statistical methods and definitions, and centralize results - precisely what Eurostat does nowadays on a European scale. The general census of the population, industry and agriculture was held in 1846, and of it Levasseur was able to write "... the Belgian census was the first to be organized on scientific lines. It can be regarded as a model of its kind." Still with the aim of coordinating methods, Quételet convened in 1853 the first international congress of statisticians, a step which led to the founding 30 years later of the International Institute of Statistics. Finally, Belgium acquired a distinguished reputation in the field of family budgets surveys, and it was the data thus gathered which enabled the German statistician Ernst Engel to formulate his famous law.

Today, that statistical system has lost its way. It is not for lack of a solid legal base: the Belgian law on statistics is clear and explicit. Politicians are simply no longer interested in statistics. Staffing levels, particularly of qualified personnel, are well short of adequate. For 15 years the National Statistical Institute has had only intermittent management. The Committee for the Coordination of Administrative Statistics, established by law in 1985, has yet to be appointed. The opinions of the Conseil Supérieur de Statistique relate as a rule only to isolated problems, and rarely consider the root of the matter. The country has no Statistical Programme worthy of the name. And yet the criticisms fly in all directions.

What, then, is it that makes Belgian statistical law and organization different?

1. The special form of the law on statistics

The Belgian law on statistics dates from 1962. It was expanded in 1985 to include a reference to regionalization, but the principle of centralization remained in place. The first striking point about the law is that it says nothing about the creation of the Institute, nor about its role. The Belgian law on statistics, unlike that of other countries, is not a law to establish the Institute; it merely defines the ways and means of statistical investigation. The role of the Institute is the sum of those investigations, plus the task of coordination.

Like God the Creator, the Belgian National Statistical Institute appears to have been with us since the beginning of time. In fact its existence dates from provisions enacted long ago to regulate the Belgian government's internal organization. The Institute is ostensibly responsible for performing the tasks entrusted to it by the Government, or by its supervising ministry, and with the approval of the CSS. And in fact the legislation - Royal and Ministerial Decrees - defining the statistical work to be done is inspired by the Institute - and in theory also by the CSS - though this is nowhere made clear in the law.

For statistical enquiries, the law distinguishes four categories:

- Statistical enquiries of a purely documentary nature;
- Enquiries of an administrative nature;
- General censuses of the population;
- Voluntary statistical enquiries (added in 1985),

and lays down as a principle that no enquiry may be held without a specific political decision. For the first three cases this decision is in the form of a Royal Decree; in the fourth a Ministerial Decree or Decision, published in the Moniteur Belge. The result is long lead-times and copious red tape.

Article 1 of the Law states that "His Majesty may order the holding of a statistical enquiry into the demographic, economic or social situation of the nation, or of any community or any region." This, of course, means a new enquiry, and not the pursuit of an enquiry which, once decided upon, is continued, such as the monthly and annual surveys of industry, the annual agricultural survey, etc.

2. Role of the CSS

The CSS, which is required to give an opinion on all work proposed, is without doubt one of Europe's earliest. Established in 1841 as the Commission Centrale de Statistique, it is the forerunner of analogous consultative bodies established in other countries.

The status of the CSS is clear, but somewhat out of keeping with the piecemeal and academic nature of what it does.

There is no question of the Council being called upon to give its opinion on a general programme of statistical work. It meets at monthly intervals, and its proceedings and opinions deal with individual projects for statistical enquiries. It could be more incisive. In December 1986 it published an opinion on "the statistics established by the Institute, statistical lacunae, and changes in working methods." Little came of it.

3. Special features of the legal framework

The Law on Statistics covers all three main principles of statistical organization:

- Compliance;
- Confidentiality;
- Centralization.

The following paragraphs set out some of the more noteworthy aspects of these provisions.

3.1 Compliance

Under Belgian law, a prison sentence (of between eight days and a month) can be imposed for failure to comply with statistical requirements, though only in the case of a second offence within five years of a previous conviction (Article 22). Although this provision has been law since at least 1962, it has never been enforced. Indeed, there is a tendency for the public proecutor to drop charges in such "purely statistical" proceedings.

Elsewhere in the law, a clear answer is given to questions which are the subject of frequent discussion:

- There is an obligation to respond to a survey on condition that the method used implies that, for every person in a given category, the probability of being canvassed is the same (Article 3);

- In statistical surveys decided upon by the Minister (Article 12) rather than by Royal decree, individuals and the private sector are not obliged to cooperate. Any survey forms must state the voluntary nature of such cooperation.

3.2 Confidentiality

Belgian law on statistics sets out four exceptions to the rule of total statistical confidentiality. They are no doubt founded on common sense and provide adequate guarantees for the protection of individual privacy and of business confidentiality, but they nevertheless exist, and not all of them are found elsewhere.

a) The requirements of planning (Article 2)

This exception is also found in other countries, France, Ireland and the United Kingdom in particular. Belgian law has this to say:

"Where there is a risk of individual situations being disclosed [viz. in aggregated, anonymous statistics] as a consequence of there being a limited number of respondents, the Institute may nevertheless communicate such statistics confidentially to Ministries, government departments and other interested executive departments other than revenue authorities. Under no circumstances, however, shall any legislative or regulatory measures be applied to declarants or respondents on the strength of individual data thus made available."

Statistics of industry by branch come to mind as a case in point.

b) Non-confidential individual data (Article 15)

"Individual data which are not the subject of statistical confidentiality may be used for purposes other than those set out in the (corresponding) Articles on condition that the proposed use neither affects the interests of the declarant nor jeopardizes the accuracy of future statistical data. For the purposes of this exception, statistical confidentiality is deemed to apply to any data which could not be learned lawfully without some action being taken by the interested party."

Non-confidential data would include the name, forename, address and sex of an individual; the classification of businesses according to the number of employees, or of farmers according to the area under cultivation, i.e. by size.

c) Population registers (Article 25 bis)

In accordance with the Law of 2 June 1856, still in force: "Population registers shall be updated and amended in accordance with the results of the general census of the population."

For this reason the 1991 Census forms included certain pre-printed data supplied by the local municipal authority: name, first names, address, place and date of birth, marital status, nationality, identity of household, name and first name of spouse, sex.

In this way the census is used to test the national register of population, correcting any erroneous data and filling any gaps.

It may be noted that it was precisely such a provision as this which resulted in popular criticism of the census in Germany, and that in Luxembourg the Grand-Ducal regulation of 24 January 1991 ordering the census stated (Article 4) "Municipal authorities shall not make use of data collected during the census in order to amend or complete municipal registers."

d) Enquiries for administrative purposes (Chapter II)

Article 5 states that "When individual data are indispensable to the preparation, drafting and implementation of a law, decree or departmental regulation, His Majesty may order special enquiries to be undertaken with a view to making such data available to designated ministerial departments etc., other than revenue departments."

The spirit of the law allows such enquiries to be conducted by the Institute. They include, for example, monthly and annual surveys of industry, the annual agricultural census, etc.

Belgian law is unique in empowering the Institute to conduct enquiries for administrative purposes. The probable reason for this provision is that the Institute is well equipped to do the job. When such cases arise, individual data are collected for transmission to the administrative department(s) concerned. There is no breach of confidentiality, since the respondents are advised of the administrative aims of the survey. Such a procedure can nevertheless give rise to doubts as to the nature of statistics and statistical confidentiality. Our own view is that for this reason it would be preferable to maintain a strict separation between administrative work and statistical work.

e) An indelicate question, finally: what would happen if the Minister asked for confidential individual data to be communicated? The Institute answers that the provisions on confidentiality take precedence. One answer would be for a Minister to order an enquiry for administrative purposes.

3.3 Centralization of statistics

Basically, Belgian statistics are organized centrally even after regionalization, although the establishment of regional statistical institutes cannot be ruled out for the future. Article 14 provides for a committee to be set up to *coordinate* the statistical activities of government departments, services and institutions, and centralize the results of those activities. This provision dates from 1985, but by mid-1992 the committee had still not been formed, although it was expected to meet before the end of the year.

There are a number of notable *exceptions* to the principle of single statistical responsibility:

a) Data on *cause of death*. Article 4 of the law explicitly assigned this task to the Institute, stating that doctors could not observe Hippocratic confidentiality in this area. However, the data are collected by the Ministry of Public Health: the Institute no longer has any physicians on its staff.

b) The *Centrale des Bilans* (Register of Company Accounts) established under the Law of 24 March 1978 is maintained by the National Bank. The tasks involved are essentially administrative, and only then statistical.

c) Following the abolition of the dual system of foreign exchange, the Law of 2 January 1991 gave to the IBLC (the Belgo-Luxembourg Exchange Institute) the purely statistical task of gathering data to compile the BLEU's *balance of payments*, granting it for the purpose an annual budget of Bfrs 200 million (5 million ECU) indexed on the prices index - some 20% of the Institute's budget. The statistical nature of this law is further attested by the fact that it includes confidentiality provisions modelled on those of the basic law on statistics.

d) Probably for political reasons, the *indices of consumer prices* and producer prices are the task of the Trade department in the Ministry of Economic Affairs. This department cannot offer the same guarantees of scientific impartiality (or, indeed, statistical confidentiality) as the Institute.

This undermining of statistical authority undoubtedly runs counter to the official principle of centralization, but it has the advantage of making available to statistics in general greater resources than would be allowed to the Institute were it alone responsible for carrying out the surveys in question. The IBLC's 200 million franc budget for the balance of payments would certainly not have been given to the Institute to do the job.

4. Depleted staff and management

Institute staff represent 1.1 per 10 000 population, or 1.2 including other statistical department staff. The Community average is 1.5. Graduates make up 6% of

Belgian Institute staff, compared with between 14% and 25% elsewhere.

The position of the Belgian Institute is made more difficult by the small number of graduates amongst its middle management, which would appear to be symptomatic of a lack of political interest in statistics, as the following observations tend to confirm:

a) In 1991 the Belgian Institute employed a total of 1065. The Netherlands' CBS had 2770. The Institute had 60 graduates; the CBS 445. Of eight senior management posts, only four were filled (five at the end of 1992);

b) The post of Director-General was occupied from 1987 to 1992 by the Chief Inspector, as acting Director-General. A comparable provisional situation had obtained for several years in the early 1980s. This scarcely enhances the authority of the man responsible for the general running of the Institute;

c) In 1991, only three of the Institute's six Directorates were headed by an official whose grade matched the job. Here, too, the individual's authority is undermined by the situation.

5. The director-general's powers

The general impression given by the law on statistics is that it seeks to limit the initiative of the Director-General, and deny him the power to ensure that statistical science makes progress. Although the initiative lies nominally with the Institute, any new statistical survey, even on a trivial scale, and any change to an existing survey, must be approved by the government after receiving the prior approval of

a) the Conseil Supérieur de Statistique
b) The Commission Conforme (whose aim is to lighten the burden of administration)
c) The Council of State.

This procedure can take anything from six months to a year. Furthermore, all decisions regarding statistics are subject to political control:

- Methodological recommendations to other departments and services, issued in accordance with Article 14 bis (3) are channeled through the Minister;

- The decision on what is and is not subject to statistical confidentiality lies with the Minister, after taking the opinion of the CSS (Article 15);

- The methodology of statistical surveys is determined by the King, after taking the opinion of the CSS (Article 16);

- The Minister may even deem that a statistical item need not be submitted for the opinion of the CSS (Article 27 (b) (2)).

Although the Minister's role is frequently no more than a formality, it appears to be an unnecessary step in the decision-making process, contrary to the principles of scientific impartiality and objectivity.

6. No statistical programme; no annual reports

The final effect of this lack of independence for the Institute, the political interference, and the de facto piecemeal approach of the CSS, is that there exists no overall statistical programme such as would serve to highlight the statistical shortcomings and the inadequate resources.

7. The crisis in Belgian statistics ...

These facts noted, it is hardly surprising that there is a crisis in Belgian statistics. Such a crisis is all the more to be deplored since Belgium led the statistical world during the nineteenth century, and was still widely respected during the first three-quarters of the twentieth. The crisis is expressed in the inadequacy of resources referred to earlier. It is expressed in the lack of direction which has prevailed since 1975, broken by only a few temporary occupants of the Director-General's chair, who were unable to bring the institute back onto course. It is expressed publicly in the complaints and criticism besieging the Institute. The Conseil Central de l'Économie reported devastatingly in October 1988 that data produced by Belgian statistics were late, of poor quality, and inadequate, and that the institution itself was badly organized and insufficiently coordinated. In June 1991 the newspaper Libre Belgique wrote of national statistics being, in the words of its own staff, "rudderless"; more than half the subscribers to its publications are reported to have cancelled their subscriptions.

The Belgian Industrial Federation takes the view that the Institute should be turned into a quango capable of offering attractive salaries to attract high quality staff. Professor Paul Kestens, Director of the Department of Applied Economics at the Free University of Brussels, has on several occasions expressed his concern at the state of the Institute: "In terms of competitiveness," he writes, "Belgium's Institute does not compare well with the institutes of our [European] partners. The situation has deteriorated badly over the past 20 years: whereas in the past Belgium was the world leader in theory and methodology." Prof. Kestens' preferred remedy is to amend the aims and organization of the Institute by giving it responsibility for analyses.

A situation as serious as this can only have political causes. The Institute is manifestly short of resources. With the evidence so clear, the difficulties of Belgian public finances are not a good enough reason to allow the crisis to deepen any further.

For many years the Institute has had no Director-General, and no means of making its voice heard to any purpose internationally. Why should Belgium have deprived its national statistics of a helmsman? It is widely known that any political decision in Belgium is complicated by the need for balance - linguistic balance, but above all balance in the sharing out of senior administrative jobs amongst the parties of the government. Perhaps there is even hesitation on the part of the Institute: is there any point in strengthening it, when statistics may one day be shared out amongst the regions? It is difficult to imagine how a government can stand aside, doing nothing, for years, whilst an institution of national importance declines and decays.

... and the remedies

The situation is difficult, but by no means disastrous. There are a few potential strengths:

- The law on statistics gives generally wide powers to the Institute;
- Belgium has a long statistical tradition;
- Whilst political power is trickling to the regions, statistics has remained national;
- The National Institute is assisted by the CSS, which is capable of giving it support before the public and political authorities;
- Belgium has good universities, and good staff can be recruited;
- Public opinion - universities, research, business, etc. - is crying out for better statistics.

Belgium's national anthem, La Brabançonne, once called upon the nation to rise from the grave. A man with determination at its head is all that is now needed to breathe new life into the National Institute. The following might form part of an action programme:

1. The post of Director-General should be filled forthwith. In future, should the incumbent be transferred elsewhere, he should not move until his successor has been found;

2. The Committee for the Coordination of Administrative Statistics, whose establishment was provided for in 1985, should meet regularly. It is up to the National Institute to set the Committee's guidelines;

3. The CSS should be mandated to establish a medium-term programme of work, and an annual programme;

4. The Institute should report annually on its execution of the programme;

5. More staff are needed. International comparison shows this clearly: in neigbouring countries the staff/population ratio exceeds Belgium's by more than 50%, with a percentage of graduates two or three times greater.

And there is one peril to be avoided: regionalization of statistics. That would mark the end of the Belgian National Statistical Institute.

A STATISTICAL SYSTEM (almost) WITHOUT INQUIRIES : DANMARKS STATISTIK

CONTENTS

Abbreviation

D.S. = Danmarks Statistik

A STATISTICAL SYSTEM (ALMOST) WITHOUT INQUIRIES : DANMARKS STATISTIK

Something is new in the State of Denmark
Hamlet (1991 version)

"The Lord God commanded the man:
you are free to eat from any tree in the garden;
but you must not eat from the tree of the
kowledge of good and evil, for when you eat
of it you will surely die".
Genesis II 16-17

The activity that certain countries consider to be the cardinal sin, or the forbidden fruit, and which consists (to put it bluntly) in the interconnection of statistical data files, is the very linchpin of the Danish Statistical system which is notable for its spirit of adventure and its pioneering approach.

The idea of a statistical system that is largely based on the exploitation of administrative sources is the most original aspect of the Danish set-up and reflects the desire to rationalize and improve the productivity of the system in spite of the difficult budgetary situation in the field of public finance.
But let us first consider the general organization of Danish statistics before looking more closely at the aspects that are the hallmarks of its originality.

1. General organization

1.1 A young system

On July 1, this year, the Danish statistical system will be celebrating the 25th anniversary of its statutory creation. The Law marking the establishment of *Danmarks Statistik* and giving the institution its name only dates back to 1966. This is a very short statutory history, but the compilation of statistics really started far earlier in Denmark with the establishment of a first centralized statistical office as far back as 1850, albeit under the terms of a simple Government Decision. But what is truly remarkable about that Decision is its association, in Danish minds, with the introduction of democracy in 1849, so that instead of being regarded as just another government service, Statistics are considered by the ordinary citizen to be a very useful instrument for the preservation of transparency.

1.2 Functions

The functions of the Danish statistical system are essentially statistical. Law No 196 of 8 June 1966 set up a central statistical authority under the name of Danmarks Statistik with the basic aim of collecting, processing and publishing statistical data on economic and social conditions in Denmark, in addition to which it was to monitor and provide assistance for the compilation and use of Central Public Registers which were to be used for purely administrative purposes by Central Government and by Businesses and could also be exploited for statistical purposes. In 1966, this was indeed a pioneering law for the establishment of a statistical system founded on new principles.

Another interesting characteristic of the legal status of Danmarks Statistik is its empowerment to *sell* statistical services to public and private organizations.
Finally, DS participates in international statistical cooperation and is also empowered to carry out analyses and prepare statistical forecasts. It is under no statutory obligation to engage in the last-mentioned activities, which are in fact on a very modest scale. DS makes no economic forecasts and uses only a single econometric model (the Adam model and the corresponding databanks) on which the macro-economic models employed by the various Departments of the Danish Central Government are based.

Although the legislation relating to statistics makes no reference to statistical training, research or support for the development of statistics DS does in fact organize courses for public and private users of statistics.

1.3 Functional and geographical centralization

It is considered in Denmark that centralization of the statistical system is the logical solution for a relatively small country and indeed the only means of avoiding duplication and inconsistencies. Like most other centralized systems DS has a number of decentralized departments dealing with Fisheries, Health, Education, the Environment, Finance, Public Services, etc. with a statistical workforce of about 250 persons, to whom must be added the 45 officials of the Statistical Division of the Danish National Bank, adding up, in 1990, to a total of approximately 300 persons compared with the centralized statistical workforce of approximately 600. The degree of decentralization is based on the

argument that the abovementioned statistical domains are a matter of direct administrative concern.

But there are no regional statistical services in spite of the fact that Denmark is half as big again as Belgium and is furthermore broken up into a European mainland area and several islands.

1.4 Coordination of public statistics

The Act of 1966 under which the Danish statistical system was reorganized lays down detailed rules for the coordination of Danish public statistics.

Article 1(3) obliges any public authority intending to collect and analyse statistical data to inform DS in its capacity as coordinator.

Article 6(6) obliges the country's public authorities and institutions to allow DS to access all the statistical data on their files.

1.5 Organizational chart

The organizational chart reproduced in Annex is characterized by the decentralization of general services, including informatics and even library services and publications. There are only three Statistical Departments: Business statistics[1], General economic statistics[2] and Population Statistics[3]. This is in striking contrast with the set-up at the Belgan INS which has 6 Directorates including separate Directorates for Informatics, Administration and the Census of Population. DS does not have a Directorate for Administration, but only an Administration Office whose competence is limited to staffing and budgetary questions. Although DS's Informatics services are decentralized, it does have a General Methodology Section attached to the Population Statistics Department. The advisers responsible for research and methodology are attached to the same department, but their services are available to all other departments. The library, publications and information services are attached to the Business Statistics Department. DS has no in-house legal adviser, as the institution prefers to call on the services of external advisers as and when necessary.

The number of Directorates has thus been restricted for reasons that are not entirely clear.

1.6 The role of the Director-General

The Director-General of DS (who may be appointed, as in the Netherlands, from outside the Statistical service) bears the title of "National Statistician". He is appointed for an open-ended term, and his powers are very extensive although the institution's Work Programme is drawn up in principle by the Board of Governors.

1.7 Board of Governors

The Act of 1966 states in Article 2 that Danmarks Statistik is an independent institution under the supervision of a Board of Governors. It is in fact a two-tier institution:

- the Board has only 7 members, including the Director-General, who is its Chairman;
- but the Board can seek the advice of 17 specialized Consultative Committees composed of representatives of users of statistical information and supliers of raw data in such domains as industry, agriculture, transport, employment, accidents and the environment.

In other countries these two categories of persons hold joint meetings, as a top-heavy National Statistical Council. The advantage of the Danish formula (which has also been adopted in Ireland) lies in its greater flexibility, but it can only be viable if the seven members of the Board, on whom the system imposes a heavy burden of responsibility, put in a regular appearance at the periodical meetings and make sure they have been properly briefed down to the last detail.

The Board meets only 4 times a year, for two hours, and is obviously not insensitive to the influence of Danmarks Statistik whose Director-General is its Chairman. Although the Board is in principle the more powerful organ the contents of the Programme of Work are largely determined by DS itself.

1.8 Planning

The Board of Governors approves the annual Programme of Work which must be ready for application on 2 January. Planning is conducted on a purely annual basis and there is no multiannual plan at present Although DS does not issue an annual report on the implementation of the Programme, its statistical activities are described in an annual Guide, the "Vejviser" (the Danish equivalent of the guide published in the Federal Republic of Germany under the title of "Das Arbeitsgebiet der Bundesstatistik") which systematically lists the sources of Danish statistics and provides the various users with a very handy reference tool.

The Programme of Work is a fairly slim document (about 40 pages, including the annexes) and is subdivided into three chapters:

- resources; budget, sales, staffing, informatics, productivity;
- production of statistics by the three Departments, (Population statistics, Business statistics and General economic statistics);
- marketing policy: publications and services.

Annexes : Statistics on Statistics - Committees - Organizational Chart

DS drafts its annual Programme in the autumn in the light of the recommendations of the specialized Committees and the relevant EC Legislation, and it is submitted to the Board of Governors for approval before Christmas at a meeting that lasts only two hours and would seem to be more or less a formality.

1.9 Obligations and statistical secrecy

Foreign observers' eyebrows tend to rise when they are informed that there is no statutory provision for statistical secrecy in Denmark. Nor is any recognition given to statistical obligation as a general principle, although the Law alludes to it obliquely at some length by listing (in about ten sections and sub-sections) the information to be supplied in various domains (agriculture, industry, transport, external trade, etc.). The penalty for failure to comply with these requirements is a fine but the amount is unspecified !

Although there is no statutory provision for its observation, the principle of secrecy is applied through a set of internal instructions that have been gathered together in a handbook ("Datasikkerhedshandbog"). The situation therefore seems to be that violation of secrecy is punishable only by disciplinary measures: but a study of the extent to which the Danish Penal Code provides for sanctions under this heading is currently under way.

2. Budgetary constraints

The precarious state of the nation's finances has obliged the Danish Government to adopt a draconian approach to public expenditure reflected in the imposition of severe constraints on Danish statistics precisely at a time when the statistical system ought to be pressing ahead with the development of its activities.

2.1 Budgetary appropriations

The national purse-strings have been kept particularly tight in the past few years. Between 1988 and 1990 budgetary appropriations for statistics were cut back from 129 to 124.2 million kroner, i.e. by 3.7%, whereas the index of retail prices rose by 9.6%. According to one official publication, after remaining stable over the period 1970-1980, the value of the budgetary resources earmarked for statistics was reduced by 15% in real terms over the period 1980-1990.

2.2 Staffing

According to "Statistics on Statistics" annexed to the Annual Report for 1991, Danmarks Statistik cut back its personnel from 653 persons in 1987 to 598 in 1991 and intended to reduce the number still further, to 554, in 1992), representing a reduction of 8.5% over the four-year period and an average annual reduction of approximately 2%. There has been a particularly sharp reduction in the numbers of part-time staff (31%, from 154 to 106) whereas the number of full-time staff has been reduced by only 1.5%. In full-time equivalent terms, the reduction works out at 4.4%. Although the slimming operation has so far been painlessly conducted, by natural wastage, Danmarks Statistik may soon be obliged to dispense with the services of some of its staff who are employed under the terms of a collective agreement.

2.3 Efforts to solve the funding problem

The current thinking in several countries (France, the United Kingdom, etc.) is that the development of an organization and especially the computerization of its various operations must inevitably be reflected in the reduction of expenditure at rank-and-file level, whereas the need for graduates will continue to expand, and that such reinforcements will even contribute, through the additional input attributable to their education and training, to the improvement of the organization's overall productivity. DS's staff of approximately 600 persons now include 140 graduates and 80 (non-graduate) EDP experts.

It is worth drawing attention, in passing, to two original lines of research that are currently being pursued in Denmark:

A study is being made of the conceptual and statistical aspects of the phenomenon of *productivity* in the field of statistics. But statistical production is difficult to define. It has already been pointed out that the Annual Report contains "Statistics on Statistics" ... which provide a basis for such research and includes time series on the structure of expenditure and income, staffing, publications, computerization, internal training courses and the development of the library. An internal study of the pattern of development of productivity at Danmarks Statistik over the period 1970-
1990 was completed in February 1991 (the report is in Danish).

The Law of 1966 furthermore authorizes DS to carry out statistical work, against remuneration, for local authorities, organizations, firms, "etc.". The word "etc." is seldom encountered in legal texts. And this text is considered to represent the legal basis for the financial autonomy of Danmarks Statistik.

3. Financial autonomy

This is certainly an original provision. Only in a very few countries (e.g. Portugal) is extra-budgetary revenue in the form of payments from European Community sources and income from publications and services placed at the disposal of the NSI. And this autonomy can obviously boost the propensity to take initiatives.

3.1 Structure of the statistical budget

Although it is reducing the volume of budgetary appropriations for Statistics, the Danish Government is compensating the NSI by enabling it to develop its own resources to the extent that it manages to mobilize the funds elsewhere. It has been told to fend for itself! In other words, the Government sources of funds for statistics are drying up while more and more funds are flowing in from other sources. Between 1986 and 1990 alone, the Government's contribution to the NSI's budget fell from 79.4% to 71.5%, while the part played by the NSI's own funds was obviously moving in an opposite and positive direction.

	Mio. of KRONER			%		
	1986	1989	1990	1986	1989	1990
Central Government funding	114,0	123,1	124,2	79,4	73,1	71,5
Income of which	29,6	45,4	49,4	20,6	26,9	28,5
- services	21,3	31,2	30,8	14,8	18,5	17,7
- publications	4,2	6,3	7,9	2,9	3,7	4,6
- other	4,1	7,9	10,7	2,8	4,7	6,2
Total budget	143,6	168,5	173,6	100	100	100

The results of this pattern of funding can be summarized as follows:

- the possibility of generating the Institution's own funds to compensate for the reduction of Central Government financing in real terms;

- the risk that the extent to which the institution can generate its own income will be drastically affected by the major cuts in Government finance for the other Departments (which prevent them from purchasing DS publications and services) while at the same time orders from the private sector are jeopardized by economic stagnation;

- the risk that failure to generate an adequate volume of own funds will mean redundancies, and this is a very real risk in 1991;

- a situation in which statistical production can be maintained as long as productivity rises sufficiently to compensate for the reduction of the number of persons on the payroll;

- finally, if productivity cannot be sufficiently raised, a situation in which statistical production itself will have to be reduced.

3.2 Marketing policy

In 1990, income from EEC appropriations, including the Labour Force Survey in particular, represented a little over 2% of the institution's budget.
The main resources of Danmarks Statistik, nearly a quarter, are generated by the institution's marketing policy.

3.21 Publications

In 1990, revenue from publications amounted to 7.9 million kroner, or 4.5% of the total budget. Danmarks Statistik can still be said to be pursuing a traditional publication programme but is now tending to limit its publications to what is considered to be essential while reserving the detailed tables for on-line consultation or marketing under the special services heading, so as to boost the institution's income. This is particularly apparent in the case of the Census of Population, which is no longer followed by the publication of a multitude of brochures. If you need the detailed data, you have to pay for them !

3.2 Marketing of Statistical Services

Statistical services are the main source of income and account for some 20% of the institution's total budget! The range of services extends from on-line consultation of Danmarks Statistik's databanks (the new medium of statistical publication) to the supply of customized statistical packages which may involve the organization of special studies. DS has had to develop a system of analytical accounts and price calculations in order to implement this policy. The invoicing of these services is based on total cost, rather than the marginal cost of production, so as to cover a part of the overheads and constitute a sort of profit for DS, which it can use to finance its activities. Invoicing based on marginal costs, on the other hand, can be likened to a drawn game

which would only just be worth the candle and would not help the institution to solve its financial problems.

The number of clients is increasing fairly rapidly, and multiplied sixfold over a four-year period, from 42 in 1986 to 188 in 1991; and the corresponding revenue showed a ninefold multiplication (from 0.4 to 3.4 million kroner). Two of the institution's databanks can be accessed by the general public:

- DSTB: Danmarks Statistik Time Series Databank
- KSDB: a databank containing regional information at the level of the 275 municipalities.

The fact that after rising continuously throughout the '80s, revenue from sales of information and services suddenly slumped in 1990 is a matter of some concern, in view of the dynamic role it has played on the Danish statistical scene. Much depends on whether it is a blip or a longer-term interruption of the upward trend.

4. A register-based statistical system

Let us now take a look at the most original feature of the Danish statistical system which is that of statistics without specific inquiries. As long ago as 1974, the Danish Government decided to discontinue the traditional Census of Population and thus obliged the statistical system to look for alternative sources of data.

There was talk in those days of an entirely new system of statistics based on the computerized exploitation, with the help of a system of identifiers for persons and enterprises, of the information recorded by the process of administrative documentation. The idea had been examined in depth by certain authors (Nordbotton, Ohlson, etc.) over the preceding decade. It seems to have been regarded as a pipe-dream in most countries and swept away by the reaction of the defenders of privacy who deeply mistrust statistics. But the Scandinavian countries put the idea into practice, with Denmark in the vanguard.

4.1 Reasons for introducing the system

Apart from the pressure imposed by the Government's decision to abandon the traditional type of Census of Population, there were a certain number of other reasons for the introduction of this new statistical system:

- This was a logical development. As soon as a Central Government has installed computers and is obliged by the complexity of its operations to make use of identifiers (which it does in most countries) it is tempted to draw the logical conclusion, i.e. to standardize the identification numbers used by the various Government Departments and use the hardware and standardized identification numbers to interconnect the various administrative files and thus to develop an integrated documentation system;

- such a system makes it possible to meet the statistical demands of firms while at the same time reducing the cost of inquiries by streamlining the exploitation of the data collected for administrative purposes;

- the system raises productivity and reduces costs at a time when the demand for statistics is expanding while budgetary resources are scarcely improving or even declining;

- Danmarks Statistik also considers that the new system ensures the enhancement of quality and the more timely availability of statistical information;

- finally, the development over the past quarter of a century of innumerable Administrative Registers from which statistics could be extracted as by-products constituted a direct threat to one of the basic organizational principles of the Danish statistical system, namely the principle of centralization. Hence the provision, in the Statistical Law of 1966, for the assumption by Danmarks Statistik of the role of coordinator of the compilation of these Registers. This ensures that statistical production requirements are taken into account at the Register planning stage. The statistical exploitation of these registers is left entirely to DS. As a result, the tendency to decentralization associated with developments on the informatics front is kept largely in check by the statistical system.

4.2 Elements of the system

4.21 The system of basic identifiers

Over the years, the Danish legislation has created three identifiers that are used in all the databanks in the public domain (and even in certain cases in the private sector).

1. A law enacted in 1968 provided for the compilation by the Ministry of the Interior of a Central Population Register based on the allocation of a unique ten-digit identification number to each member of the population, either at birth or at the time of establishment of the first definitive residence in the case of immigrants. The ten-digit number contains data on the sex and age of the person to whom it relates and the Register also contains that person's name and address, marital status, nationality, place of birth etc.

2. A law enacted in 1975 provided for the compilation by Danmarks Statistik of a Central Business

Register. This contains the NACE classification, the number of establishments with their activities and classification by size and (for every individual entrepreneur) the unique personal reference number from the Population Register;

3. Most recently, a law enacted in 1977 provided for the compilation by the Ministry of Housing of a Register of Buildings and Administrative establishments which is used, in particular, in the fields of property tax and the granting of building permits. The identification number and the Register contain the dimensions of the building, its uses, the number of rooms, the degree of comfort, etc.

It thus becomes possible, by using these three identifiers, to interlink the various items of information on the individual, his job and the housing unit he occupies. In the latter case, the address is the link between the person and the housing unit.
As already mentioned, the Danish government decided as far back as 1974, in response to a proposal put forward by Danmarks Statistik, to cancel the Census of Population scheduled to be carried out in the middle of the decade. At the beginning of 1980 Danmark was able to collect most of the data required for the European Census of Population from the Central Administrative Registers and very little information had to be collected by special inquiries.

4.22 Administrative Registers and Statistical Registers

Just like every other European country, Denmark has a considerable number of computerized Administrative Registers but with two very distinctive characteristics:

- the Danish Administrative Registers all use the same identifiers

- Danmarks Statistik extracts, from these Central Registers, a set of Statistical Registers whose contents are limited to data of statistical interest (excluding the name and address but including the identification number).

  The official list of Statistical Registers, which are generally updated on a quarterly basis, is reproduced in Annex.

4.3 Protection of privacy

The earliness of the establishment of the Danish system was matched by the earliness of the Danish Law on data protection. The country was quickly off the mark, in 1978, with the Law on Public Authority Registers. Unlike many foreign laws, the Danish Law recognizes the special characteristics of statistics, which are not an administrative activity based on individual data. Hence the following provisions:

- the individual data in the Statistical Registers must not be communicated to third parties;

- the interlinkage of data from different Registers, which is very strictly limited, is permitted for purely statistical purposes if the results do not disclose any information on individuals;

- the right of access to the Danish Administrative Registers does not apply to the Statistical Registers, because the latter must not be used as a basis for administrative decisions concerning individuals;

- detailed rules must be laid down for the handling of all Statistical and Administrative Registers and the protection of the data they contain;

- finally, a special control commission has been appointed to monitor the operation of the whole Register system.

4.4 How useful are Danish statistics ?

Recourse to administrative sources obviously reduces the volume of expenditure on inquiries and possibly also reduces the burden of administrative expenditure, but its major drawback is that of forcing statisticians to put up with administrative definitions which may be very different from statistical definitions and which change, moreover, with changes in the Law. The Danish statisticians have sometimes managed, however, to persuade the administrative authorities to include in their questionnaires and registers a few items of information to be used for purely statistical purposes. They also endeavour to estimate the variables they require by combining data from a variety of sources.

As far as the reliability factor is concerned, they consider that administrative data are likely to be better than those obtained by statistical inquiries because, in their view, statistics are not taken very seriously and the public have no faith in promises of statistical secrecy, so that the data collected by inquiries are unlikely to be more reliable than the data supplied to the Administration which is furthermore in certain cases in a better position than the Statistical Institutions to ensure the application of control procedures.

5. Conclusion

The main lessons to be drawn from this overview can be summarized as follows:

5.1 If the Danish Statistical System were not already based on the interconnection of files the system could

probably no longer be introduced because the international environment is so hostile. The world belongs to those who can grasp an opportunity when it arises. In the words of Kipling :

> If you can fill the unforgiving minute
> with sixty seconds worth of distance run
> thine is the earth and everything that's in it"
> .....

5.2 Danmarks Statistik bears witness to the fact that a system based on the forbidden fruit, on what the advocates of privacy persist in calling a pernicious idea that will undermine the concept of intimacy and pave the way to dictatorship can prove to be an eminently workable system, subject to the provision of appropriate guarantees, without jeopardizing democracy and without infringing the inalienable rights of the individual citizen. The Danish example deserves to be analyzed and reviewed in depth .... and then put into practice in other countries.

5.3 There is still a critical technical question to be answered. Danish statisticians are fully aware that their system has one particular weakness. They are obliged to live with a set of administrative definitions that can change with changes in the law. That being so, what is the value of Danish statistics? A critical appraisal of the quality of the nation's statistics would also be well worthwhile.

FIGHTING ON SEVERAL FRONTS :

STATISTICS IN GERMANY

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FIGHTING ON SEVERAL FRONTS : STATISTICS IN GERMANY

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Wer immer strebend sich bemüht
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1. Introduction

Three gradual changes since the mid-1970s have rendered more difficult the work of national statistical institutes : a squeeze on budgetary resources, the need to reduce the burden of surveys, and laws on the protection of individual privacy.

Nowhere have they been felt more severely than in Germany. The population census originally planned for 1981 could only finally be held in 1987, in particular as a result of popular unrest which culminated in a judgement by the Constitutional Court on 15 December 1983. The judgement resulted in the re-writing not only of the census, but of the statistical law itself. The new law on statistics, dated 22 January 1987, resembles a ceasefire treaty in which severe terms are exacted from the loser, in this case statistics, even though the victor has unwillingly granted a few minor concessions - for example, that it is the respondent who must bear the cost of completing and returning a questionnaire.

With statistical investigations already hampered by Germany's federal structure and by the fact that a new law is required for virtually any new survey (see Paragraph 5 (3) of the law), it is easy to see that these new complications oblige federal statisticians to fight on four separate fronts :

- With the political authorities - government and parliament - to obtain the necessary authorizations;
- With the statistical offices of the Länder, to win their cooperation and compliance with deadlines;
- With the data protection agency, whose raison d'être is to monitor closely the respect paid to minutely detailed laws;
- Finally, with pressure groups hostile to surveys.

In its present predicament, German statistics draws its strength from past achievements and future hopes. Both administratively and academically it can be proud of a tradition going back to the early nineteenth or even eighteenth century : for this reason there is an unshakeable foundation of surveys. And secondly, German statistics is becoming increasingly open towards Europe, which appears to be the best hope of overcoming present domestic problems.

2. Federalism and legal authority

The twin pillars of federalism and legal authority date back to the early post-war years (see Paras 4.1 and 4.2 below). These were the cause of the fiasco with the census which should have taken place between March and May 1981, as in other Community Member States. The law enacting the census was
not passed in time because of problems in apportioning costs between the Federal Republic and the individual Länder, and the census was put back to 1983. The additional two years allowed pressure to build up to the extent that 1983 was likewise abandoned. A number of individuals had taken the census to the Constitutional court, on the grounds that it infringed their fundamental and particularly their individual rights, and in its judgement of 15 December 1983 the Court agreed that certain provisions of the 1982 law enacting the census were null and that others were nicht ausreichend geregelt - not explicit enough. It was this judgement which led to the enactment of the new law on statistics of 1987.

Federalism is also at the roots of the painstaking attention to detail in German legislation, its purpose being to ensure that there are no differences in interpretation between the individual Länder and the Federation. This risk is considered particularly awesome in the case of statistics.

3. The law on statistics of 22 January 1987

On reading this law one is struck first by the attitude it betrays, and secondly by its punctilious attention to detail.

That *attitude* is hostility to statistics, and is derived from the philosophy underlying the 1983 judgement, which introduced the principle of "informational self-determination". What this term means is that the individual is free in principle to decide what information, if any, he wishes to supply; statistics is seen as an invasion of privacy in conflict with the fundamental rights

guaranteed by the constitution. And yet Paragraph 1 of the Law reads "Federal Statistics are necessary to the (nation's) policy of a social state". This contradiction is the price to be paid for abandoning commonsense in favour of metaphysical chimeras such as informational self-determination. Applying the same anarchist logic one could argue that the individual is free to decide whether or not he pays income tax (fiscal self-determination) although he should pay it in the interests of the social state, or that he can decide whether or not to perform his national service (military self-determination) but that he will in any event have to in the defence of the social state, and so on.

Inference : statistics will continue to be gathered.

Implicit questions : what statistics, and how will they be gathered ?

The law is long and complex, and exegesis a correspondingly difficult task.

First, the law confirms that any survey must have been authorized by a law. It also introduces a number of innovations, including that :

- The principle of compliance no longer applies;
- "Auxiliary variables" capable of individually identifying survey data must be erased as soon as possible;
- Survey canvassers must be selected using strict criteria of trustworthiness and discretion;
- When muncipalities or other administrative departments are involved, a strict separation beween statistical work and other administrative work must be guaranteed. Specifically, municipalities may not use census data to update their address files;
- Other than in the course of official federal statistics activities, it becomes an offence to interconnect files - even purely statistical files - with a view to identifying individual census respondents. The penalty is imprisonment for up to twelve months.

Considering the *law* as it is formulated, the reader is surprised by its meticulous attention to detail. This is the result of the climate in which the law was conceived : the need for statistics to justify its every action, but also the need to draw a clear line between the competences of the Federal Statistical Office and those of the Länder. The law therefore first defines the general mission of Federal statistics (Para. 1), and then defines ten specific tasks (Para. 3) in order to prevent any challenge to Federal competence from ministries or the Länder, before going on to devote two paragraphs (Paras 18 and 19) to European and international cooperation, which are likewise explicitly designated as matters for the Federal statistical office.

Paragraph 11 states that if a questionnaire is used, it must be completed in the form in which it is presented, and that the replies must be certified by a signature should the questionnaire so require - again, so that there can be no argument. But Para. 17 also requires the questionnaire to draw the respondent's attention to no fewer than eight other statutory provisions. The law again comes to the rescue of the statistician by requiring that answers be truthful and complete, and returned within the stated time, and that the costs of responding are to be borne by the respondent (Para. 15 (3)). One can imagine the argument which preceded detailed legislation such as this!

Finally, the law sets out what to a stranger must seem to be self-evident truths, such as :

- Even if they comprise individual data, anonymous sets of data known collectively as "statistics" are not deemed to be "individual statistics" for the purposes of statistical secrecy (Para. 16 (1) to (3)). Quite so. This is to prevent the Office being brought to the courts if an individual item of data were perceptible through an aggregate comprising a limited number of units;
- individual data may be communicated by the Federal office to the statistical offices of the Länder (Para 16 (3)), but only on the terms set out in Paras 16 (3) and 3 (2);
- the same goes for data swapped between the Federal office and municipal statistical offices (Para. 16 (5)), on even more restrictive terms;
- individual data may be communicated to a ministry (but not published) if such communication is explicitly authorized by a special law (Para. 16 (4)) e.g. in tables comprising certain individual data. Why they bothered enacting something as obvious as this defies understanding, but lawmakers are capable of almost anything short of turning a man into a woman.

4. Particular problems

4.1 The principle of lawful authority

The decision that a statistical enquiry should be carried out can be reached by one of three bodies :

- In most countries it is the Director of the national statistical office, after consulting either a High Council or the supervising minister, whenever appropriate;
- It can be the government of the day, as in Belgium;
- It can be the legislator.

As long ago as 1953 Germany opted for this last, most complicated and slowest alternative. What it implies is that, after the stage of methodological preparation, a new enquiry must be held in the form of a draft law or, more rarely, a draft law proposed by Parliament. That law will be as pedantically prepared as the Law on Statistics, and will then be submitted in turn to :

- the High Council on Statistics;
- the Government;
- the Bundestag;
- the Bundesrat;

all of which will take a minimum of 18 months.

There is, of course, an acquis in the form of repeated surveys already authorized by previous legislation, and an attempt has been made to limit the disadvantages of the principle of lawful authority by the following measures :

1) Investigations into the economy and the environment may be decided upon by a regulation of the Federal Government, under certain very restrictive conditions (Para. 5 (2)) which effectively limit their usefulness :
   - Assent of the Bundesrat;
   - Period of validity of three years only;
   - statistics required for explicit federal purposes;
   - limited number of respondents;
   - total annual cost less than DM 2 million (1 million ECU);
2) In accordance with Para. 7, special surveys, designed to obtain in a short time information needed for decision-making purposes by higher Federal authorities, may be undertaken without further formality provided there is no compulsion to respond and not more than 10 000 individuals are canvassed;
3) *Restrictively* :
   Under certain circumstances the Government (but not the Federal Office or the statistical offices of the Länder) may, by a simple regulation and with the assent of the Bundesrat :
   - suspend the implementation of a survey for four years;
   - lengthen its periodicity;
   - reduce the numbers canvassed;
   - abolish a survey's compulsory nature.
4) *As far as Europe is concerned* :
   Community regulations are immediately applicable, but are not subject to the rules of compliance unless :
   - it is explicitly provided for in the regulation;
   - the survey has already been authorized by a German law requiring compliance.

4.2 Federal structure

Operationally speaking, German statistics is fairly concentrated : the Statistisches Bundesamt and the statistical offices of the Länder have a monopoly of surveys. Geographically the system is decentralized, though not in the French or the Italian manner, because of the independence enjoyed by the statistical offices of the Länder. Some observers take the view that for public administration the Federal structure, with its apportionment of powers between the federation and the member states, is justified, but that it complicates unnecessarily the tasks of the Bundesamt, and that much time is wasted in parleying with the Länder. The fact is that the Bundesamt alone is responsible for ensuring that statistical operations are brought to a successful conclusion, but cannot command every stage of the process. Collaboration with the Länder consequently takes the form not of instruction but of negotiation, diplomacy and persuasion. The Directors of the Statistical Offices meet three times a year : twice in Wiesbaden, and once in one of the Länder with the Director of that Land's statistical office in the chair. The President of the Bundesamt is not the leader; he is primus inter pares. There is a consequent risk of failure to respect deadlines, for the Länder may be occupied with other priorities.

4.3 The difficulties of planning ahead

The fact that all new statistics require a new, long and minutely-detailed law effectively rules out the possibility of any medium-term national statistical plan. Such programmes did exist in the 1970s under the Presidency of Frau Bartels, and so did inventories of statistical lacunae. They finished by being regarded as unmentionable, condemned for making excessive demands on resources, and the same condemnation was later extended to include European statistical programmes. The more conservative governments of the 1980s gave orders to reduce bureaucracy : less government, budgetary savings ... thus reducing the service to a small-steps policy which boiled down to making progress when there was a tail wind (e.g. in environmental statistics) and grasping flying opportunities such as the need for services statistics expressed by the Ministry of the Economy, or for health statistics expressed by the health authorities. The

service needed motive power and these would do as well as anything.

4.4 Political dependence

For the reasons indicated above, German statistics is more dependent on the political climate than the statistical systems of other countries. Planning was fashionable under the socialist government; under the present system the climate is hostile to statistics in general. The liberal party has an anti- red tape policy aand wishes to reduce the role of the state. Under these circumstances the CDU-CSU is badly placed to defend the rights of statistical science, since it sees "reducing red tape" as a step towards an efficient market economy.

4.5 Limits on compliance

1) The 1987 law on statistics brings in a fundamental innovation by stating that the rule is no longer the requirement to respond, but that each law authorizing a statistical survey will state whether or not statistical compliance will apply to it (Para. 15).

2) Para 5 (2), which deals with statistics authorized by decree, states that statistics of the economy and ecology "may" be compulsory; all other statistics, including those ordered for reasons of urgency by the Federal authorities, may not (Para. 7 (1)).

3) Surveys held for scientific or methodological purposes may only be voluntary (Para. 7 (2)).

4) European surveys are compulsory only if the regulation explicitly provides for it (Para. 18-2).

Although it is true that all statistical offices implement some of their surveys on a voluntary basis, the new *principle* of the German law represents *a severe blow to statistics*.

It would appear in practice that most economic surveys have a requirement to comply. For the sample demographic survey (the so-called micro-census) a half-and-half solution was adopted : a number of compulsory questions, and the rest optional.

4.6 Compulsory erasure of data

Para. 10 of the law introduces a distinction between the principal variables, which are required to establish statistics, and the auxiliary variables such as name and address, which serve only to identify respondents. Para 13 (2) sets out the data which may be included in an addresses register.

Para. 12 states that, as a principle, auxiliary variables must be deleted and stored separately as soon as completeness and plausibility checks have been carried out. This is confirmed by Para. 6 and Para. 13 (2) and (4) on address files, and Para. 16 (8) on scientific work.

4.7 Administrative data, identifiers and file interconnection

This is particularly thin ice.

1) Para. 8 of the law authorizes the Statistisches Bundesamt to use for statistical purposes the data held by federal administrative departments, provided always that the department consents. In this case the statistical office will have accesss to individual data. However, the text does not apply to the Länder administrations.

2) Para. 9 (2) stipulates that the law shall not permit the use of consecutive and serial numbering systems for survey implementation except when the survey contains personal or factual data other than auxiliary variables.

3) Para. 13 authorizes the federal and Länder offices to keep the address lists necessary for the preparation, implementation and analysis of federal statistics on the economy and the environment.

4) Para. 21 prescribes a prison sentence of up to twelve months for anyone who interconnects individual data from federal or other sources with the intention of discovering the identity of individuals, businesses or workplaces other than as permitted by the law.

4.8 The separation of statistics and administration

The new law introduced the principle of separation of administration and statistics at municipality level. The change means two things :

1) When a municipality has a statistical office, its activities must be separate from those of the municipal administrative departments;

2) If the municipality takes any part in the implementation of a federal census, it must be separated entirely from administrative activities, and the data obtained from the census must not be used for administrative purposes (Para. 14 (2)).

   This raises a serious problem. Although in pure theory this provision is on all fours with a strict interpretation of statistical secrecy, statistical offices have in practice always tolerated municipal use of

population and agriculture censuses, for three *reasons* :

- the data thus used - name, forename, address, date of birth, nationality and marital status - are in the public domain. They cannot be prejudicial to the individual; (*)

- it is becoming increasingly difficult to find enumerators, and the help of the municipality is needed to recruit them;

- major censuses have underlain certain semi-administrative tasks, and served for the updating of municipal records. Indeed, in Belgium the law on statistics states that the census of the population *must* be used for this purpose.

These regrettable new German provisions have already been echoed in Luxembourg for the March 1991 census of the population, resulting in additional costs and duplicated administrative work.

For the population census, the work of enumerator is unpaid. For other surveys, however, the enumerator is remunerated.

5. The strengths of German statistics

Alongside its weaknesses, the German statistical service has a number of strengths :

5.1 Tradition

First of all, this means a long academic and administrative tradition. There is also a permanent, consultable achievement in the catalogue of statistical surveys.

Also, the first Paragraph of the law states that statistics is ruled by the principles of scientific neutrality, objectivity and independence. In other words, a reminder is given of what should appear in every statistical law.

5.2 The monopoly on statistics

Although the German statistical system is decentralized geographically, from the operational point of view it is highly centralized. All statistical work is in theory the responsibility of the Statistisches Bundesamt. The few exceptions are the Bundesbank, which, like the central bank of most countries, establishes the balance of payments and financial and monetary statistics; the Federal Labour Office (Bundesarbeitsamt) which gathers the statistics on the labour market; certain transport statistics gathered by the federal motor vehicles office and the federal long-distance transport office and, lastly, a few agricultural statistics.

The consequence of this operational concentration is that the Bundesamt is regarded as "Querschnittsbehörde" - *a common services department*, entitled to work not only with its supervisory authority, the Minister of the Interior, but with any ministry. It must seek the support of the ministries concerned when launching surveys. This strengthens its scope for action.

It can be noted in passing that there exist a number of *"central" statistics*, processed by the Statistisches Bundesamt without any contribution from the Länder. These include external trade, prices structure, family budgets, fisheries, steel, wholesale trade, and others.

5.3 Staff resources

On paper the German statistical sevice has the staff to work efficiently, although there are the problems inherent in geographical decentralization. The Federal office has no more staff than the Netherlands' CBS; but Länder offices have three times as many staff, and to these can be added the staff of municipal and local government statistical offices. In all, the German statistical system (excluding the five new Länder) has some 15 000 staff, or 2.4 per 10 000 population, compared with the Community average of 1.5.

5.4 Further help from the new law

Although on balance the new statistics law considerably weakened German statistics, it did bring some benefits.

As regards *compliance*, it put an end to doubt by making it clear that the responses must be supplied on the questionnaire, truthfully, in full and in time, and that if the questionnaire so requires, the respondent must certify the accuracy of his answers with his signature. An appeal does not suspend the obligation to respond. Finally, the role and aims of federal statistics have for the first time been codified and justified.

Statistical confidentiality emerges strengthened from the legislative changes. In particular, is is clear that statistical secrecy is also *applicable to political authorities*; in other words, ministries, parliamentary commissions and others have no right of access to individual data.

(*) This view is not universally held, since many taxpayers make different statements about, e.g their principal and secondary residences, in order to obtain some tax benefit or other financial advantage. Statistics thus appears in the role of a potential lie-detector.

Finally, if the law has put statistics on the defensive, it has the merit of having forced the system *to consider its own purpose* and role. Statisticians are unlikely to run out of arguments justifying the work they do, although those arguments are unlikely to convince those who already believe that there is no need for statistics. But the best argument would clearly be an abundant supply of quantitative data.

6. Conclusion

The formidable attack on German statistics precipitated by the census has left the system weakened institutionally. Furthermore, there is a risk of other countries' systems being contaminated by the notions of informational self-determination, of the strict separation of administration and statistics, and of the early deletion of auxiliary variables, all introduced in the wake of the decision by the Constitutional Court, or by the requirement of a special law for each new survey.

A great deal of diplomacy and public relations effort will now be required if German public opinion is to accept statistics. On the other hand, domestic challenge increases Germany's interest in European statistical cooperation.

TROUBLED TIMES FOR GREEK STATISTICS

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TROUBLED TIMES FOR GREEK STATISTICS

Greece taught us that we should not under- estimate structural differences ... Brussels cannot simply make up for shortcomings that are linked to a people's history ...
International Herald Tribune, 9 April 1991

In Greece the people are wealthy and the state is poor. With our parallel economy, we always manage to get by
A Greek acquaintance who prefers to remain nameless

Attempting hath no need for hope, nor yet perseverance the need for success
William IX of Orange, "The Silent"

1. A troublesome past

Greek statistics is distingushed by a series of failings so impressive it must make the strongest-willed despair. Yet statistics itself is not the source of the greatest of those failings, which are more the result of the political, administrative and sociological environment. Consider the list :

- the politicization of the public service, and meddlesome state intervention, together with the resulting red tape;

- a lack of motivation amongst management, as a result of their poorly-paid jobs, which depent upon election results;

- a lack of interest in statistics amongst politicians. The National Statistics Council and financial independence for the National Statistical Office, established by the law on statistics of 1988, have yet to materialize;

- the absence of any effective coordination of Greek statistics. Statistics departments of individual ministries are isolated; there is scarcely any access to administrative data, and no national identity numbers for either individuals or businesses;

- delays, lacunae and errors in the statistics produced.

The political background

The OECD report of 1990/91 on Greece drew up the following list of problems after ten years of mismanagement :

- an overblown public sector : civil service employment had grown by 30% during the 1980s;
- a deficit of 23% of GDP in 1990, plus 23% inflation;
- alone amongst OECD member countries, the total productivity of the factors of production fell during the 1980s;
- tax evasion and fraud;
- political influence on appointments;
- a demotivating public-sector salaries structure;
- administrative inefficiency and poor productivity in the public sector;
- an underlying upward trend in the share of pensions in GNP.

Hence the need for the government to

- cut public sector employment and expenditure;
- deal with tax evasion and fraud;
- modify salary structures;
- privatize the economy;
- invest in education and infrastructure;
- get the inevitable short-term sacrifices accepted ...

A year later the situation is no better. The OECD report on Greece dated September 1992 notes that the inefficiency of the civil service now represents a major barrier to the country's economic development. With salaries and pensions outstripping the economy, widespread tax fraud, and prodigal recruitment resulting in lax attitudes to work, the public debt in its broad sense now amounts to 130% of GDP and is stoking inflation. It is essential that the public sector deficit and employment are both cut in order to break the vicious circle of stagflation. Administrative hierarchy and authority must be re-established. Lastly, the OECD deplores the shortage of statistics, and their unreliability.

2. The current situation in the Greek civil service (*)

Greek administration has been in poor shape for many years. Claiming to be dealing with the problem, the socialist government made it worse. The following measures adopted during the 1980s have affected the whole of the civil service, and not just statistics :

1) A squeeze on salary differentials. Net salaries (i.e. after deduction of income tax) used to range by a factor of six. That factor is now two.

(*) Based on information received by word of mouth

2) Massive recruitment of new staff in the run-up to the general elections of 1985 and 1989, without any regard to qualifications. The result is surplus staff who are not qualified for their jobs. There is trade-union resistance to any atttempted transfers of these recruits to departments better able to use them. In statistics in particular there are graduates doing executive-grade jobs (coding, survey canvassing, etc.), with inevitable dissatisfaction in both career grades.

3) In 1981 the government of the day abolished all posts of Director-General, with the intention of creating more direct contact between staff and the ministers' own private offices. In order to restore some coordination, the post of "Special secretary" was created in 1982; in 1986 they became Secretaries-General. These are political appointments. In 1991 the New Democracy government restored the posts of Director-General, but did not abolish the posts of Secretary-General.

4) Posts at Director and Head-of-Department level are now filled by election, and are renewable every three years. Nominations are handled by a panel chaired by a magistrate and comprising two senior managers and two trade union representatives. The Director posts in statistics were not renewed in 1990. A manager can therefore find himself in the humiliating and embittering position of being subordinate to someone who the previous day had been his own subordinate. Managers live in fear and, unless on the threshold of retirement, have to compromise. But since they keep their salaries after such demotion, there is a lengthy list of individuals receiving the pay of Directors and Heads of Department.

3. Too many people, not enough staff

As a proportion of the population, the staff of the Greek statistical service appears unsatisfactory : 1.1 per 10 000 population, with the Community average at 1.5. Moreover, there are problems resulting from defective organization and inadequate levels of qualification. The statistics departments within ministries do not have the necessary influence, as is readily admitted by the managers themselves.

Staff appointments are not immune to political influences, and those appointed are not always adequately qualified. The lack of qualified personnel is blamed in particular for

- Delays in producing many statistics;
- Missing statistics - construction indices, statistics of services, etc.;
- Errors in sample survey inquiries.

Recruitment difficulties

Staff in posts total 997 out of an intended 1 486. There are consequently 489 posts vacant - one in three. Recruitments require the countersignature of three separate ministers - the Ministers of the Economy, the Presidency and Finance.

The necessary graduates are available on the labour market, but the salary structure does not allow remuneration as a function of qualifications : the holders of a first degree, a master's degree and a doctorate will all receive the same salary, around Dr 80 000 (320 ECU) per month after tax. Career prospects are poor : in 1980 the difference between the bottom rung on the lowest pay scale and the top rung of the highest was about 1 :6; it is now little more than 1 :2. A Director earns 700 ECU; the Director-General barely 1 000 ECU after tax. In the private sector salary rates are twice these, and for management posts three to ten times higher.

Under the circumstances the Statistical office is obliged to hire temporary staff, whom it must fire and re-hire from time to time, to prevent their contracts from becoming permanent by default.

4. A quick turnover in the organizational structure

The repeated changes in the organizational structure of the Statistical office, each of which has its own effect on working conditions, are bewildering.

1) The vital post of *Director-General* was abolished in 1982 and reestablished in 1991. The Greek Statistical office has had only four Directors-General since the war :

   - Mr. Couvelis (fled Greece following the Coup d'Etat of 21 April 1967);
   - Mr. Geronimakis (1968-72) (national accounts specialist; this task is now performed by the Greek National Statistical Office)
   - Mr. Athanassopoulos (1974-74)
   - Mr. Kelperis (1974-February 1982)
   - Mr. Athanassopoulos 1991-)

   The post of Director-General was re-established by Presidential Decree No 336-90. Prior to 1981 the Director-General was appointed for life from amongst the Directors; he is now elected for three years, and can be re-elected twice, making a maximum term of nine years.

2) In 1982 a new, political, post of Special Secretary was created; in 1986 it became *Secretary-General*. In ten years there have been five Secretaries-General; three appointed by the PASOK and two by the New Democracy :

   - Mr. Kalombikidis(1982-85)
   - Mr. Zachariadis (1986-89; first Secretary-General)
   - Mr. Kolias (1989, served four months only)
   - Mr. Sykianakis (1989-90)
   - Mr. Kontopirakis (1989-)

   As a rule decisions are taken jointly by the Secretary-General and the Director-General, though the final word is with the Secretary-General.

3) A further innovation dating from 1982 and still in force is the fact that higher management (Heads of Department and Directors) are elected. Several directors failed to be reelected in 1990.

4) The number of Directors is in constant flux - sometimes up, sometimes down. No Member State has fewer than three Directors or more than eight. Greece has had as many as 25, and this is a problem for coordination.

   A number of arguments are used to defend the large number of Directorates :

   - the low level of staff qualification makes it difficult to manage a directorate comprising several departments;
   - in certain domains the departments are scattered over several ministries;
   - staff pressure to increase promotion prospects;
   - political factors : changes in organizational structure are devised by the Secretary-General who submits them to the Minister for a decision.

5. An original form of decentralized centralization

The Greek statistical service is decentralized both geographically and functionally. The GNSO has 51 *regional offices* to implement instructions from Athens - a considerable number in comparison with Belgium and Portugal's four, France's 22 and Germany's 16. However, the Greek regional offices have few staff, and there is a justification for their number in the geographical fragmentation of the country.

From the functional point of view, the statistical departments in *each ministry*, established in 1910, were brought under the responsibility of the GNSO by the statistics law of 1956. Not only are these departments answerable to the GNSO : they are manned by GNSO staff. At first sight this resembles the French system. However, the Greek system is less efficient, for these isolated units, not forming an integral part of the ministry as they do in France or the United Kingdom, lack the necessary clout. There is a current of opinion that the GNSO should abandon its present type of centralization in favour of the British type of Government statistical service, in which the ministry statistical services become administrative sections of the ministry in question, and the Office is responsible only for coordination. There is no effective coordination at all for the present.

6. Red tape

Is copious. See the analytical report, pp. 82-83.

7. Conclusions

The problems faced by the Greek statistical service are primarily political : politicization of the administration, demotivation of management, top-heavy bureaucratic practices. The programme announced by the government in 1991 should have been the signal for change. But the political system is precarious : the government's parliamentary majority is wafer-thin.

On the technical side, Greece's statistics must be examined thoroughly by international experts, in much the same way as the 1983 Moser report considered Italy's. Language difficulties will make this all the harder : a major translation campaign will be needed first of all.

Organization and Methods experts will be needed, to :

- consider the organizational structure and working methods;
- examine in detail the methods by which all statistics are produced;
- propose means for effective coordination;
- offer an opinion on the personnel problem.

SPANISH STATISTICS : STRENGTHS AND WEAKNESSES

CONTENTS

Abbreviation

INE = Instituto Nacional de Estadistica

SPANISH STATISTICS : STRENGTHS AND WEAKNESSES

Cuius regio, eius statistica

**Peace of Augsburg 1555,
revised version for 1992**

Spain has come a long way, not only from the point of view of European and world history, in which the country played a leading role, but also in recent times. Restored to democracy only in the early 1970s, Spain has emerged from its diplomatic isolation, acquired a modern constitution, and joined Europe. Changes on this scale could not fail to affect the nation's statistics : they are now governed by an entirely new law, enacted in 1989.

Let us consider the particular features of the Spanish statistical system.

1. A complex new statistical law

The statistical law of 31 December 1945, under which the Instituto Nacional de Estadística (INE) was established and the principles of compliance and confidentiality introduced, lasted 44 years but finally needed replacing by something more modern, designed to take account of major changes such as the return to democracy, the constitution of 1978, regionalization, accession to the European Communities, new laws on privacy, and so on. With Italy, Spain has the most recently enacted statistical law, but this does not mean that the INE's job has been made easier in every domain. First of all, the law is notable for its great length and attention to minutiae - 54 detailed Articles, taking as its example the German model, and diametrically opposed to the Dutch. This implies that there was a fear of problems of demarcation. The great unresolved problem in Spain is, of course, that of the regions and the development of their powers vis-à-vis those of the state.

What innovations did the new law bring in ?

1) First, its aim is to regulate the national statistical system (Article 1) in accordance with the Constitution (Article 149.1.31). National statistics are all those which figure in the national statistical plan, which is approved by Royal decree. This means that the INE retains a large measure of discretion.

2) Next we have the INE's status as an independent administrative body (Article 25), possessing its own legal personality and its own assets, and "attached" to the Ministry of Finance. In principle, therefore, the INE is financially independent, although for the present that is scarcely of any significance since budget transfers account for virtually all its resources.

3) The third innovative feature is the principle of legality, taken up from the German statistical law of 1987. Except in cases of emergency, any new statistics will require a legal basis, at least if there is any compulsion on the respondent to comply. This is despite the fact that the national statistical plan requires only a Royal decree for approval (Article 8) and that Community surveys are included automatically in the national plan (Article 45). An attempt has been made to get around this restriction by appending a list of new surveys to the annual Finance Law; it remains to be seen whether this ploy will work. In theory at least, this new principle of legality is tantamount to a weakening of statistical authority.

4) The new law places the INE at the heart of a national statistical system which also comprises the statistics departments of individual ministries and authorities, the autonomous regions and the local authorities, with the task of coordinating their activities. This is not unlike the Italian SISTAN, though the Spanish system differs from it in three respects at least : the total number of statistics departments provided for is less, in theory, than in Italy; the powers of the INE vis-à-vis the regions' statistics services are unclear; and in place of a single Coordination Committee, Spain has three - the High Council, which has been maintained but stripped of some of its substance, the Interministerial Committee, coordinating the statistical activity of central government departments and public services, and the Interregional Committee, through which the INE must attempt to influence the statistical activities of the regions. The fact that there are three authorities is not calculated to facilitate the tasks of the INE, the more so since alongside dealings with these bodies, bilateral relations will also have a major role to play.

5 The law contains specific provisions concerning the right to privacy, and it must be hoped that these will permit the INE to be exempted from the provisions of any future general law on the protection of individual privacy.

6) Finally, the law contains a separate chapter on relations with the European Community and

international organizations. The transposition of Community legal instruments into national law is facilitated by the provision that Community statistics are integrated "automatically" into the national statistical plan but, as in Germany, the problem of compliance remains unsolved unless the compulsory nature of the survey is written into the Directive or Regulation in question. The same chapter contains provisions which may be regarded as odd in a statistical law : that the President of the INE requires the authorization of the Minister of Foreign Affairs in order to represent Spain at international statistics conferences, and the same Minister must be advised of any statistical results forwarded to international organizations.

2. Personnel and resources

The new law did nothing to add to the rather modest resources available to Spanish statistics. Comparison within the Twelve shows Spain amongst the Member States with the lowest statistical manpower : 1.2 staff per 10 000 population, alongside Greece, Portugal and Belgium. The Community average is 1.5 per 10 000 population. The position is much the same in budgetary terms : 3.6 ECU per head of population on the entire statistical system, or about half what is spent in the wealthier Member States. On the other hand, the INE has one of the highest proportions of university graduates on its staff : 23%. This is a major strength. However, the statistics departments of the Ministries, which play a significant role under the new system, are frequently short of qualified staff : they often see statistics as an administrative task. The 1989 law lays the foundations of coordination under the direction of the INE, and this task will require great efforts and much patience over many years.

Lastly, the existence of statistical offices in the regions is an intractable problem, and the cause of unnecessarily duplicated efforts. The INE has an office in each of the 50 provinces, covering the entire territory and meeting all its own needs. These offices account for two-thirds of the INE's payroll, around 2000 out of 3000. However, the 1978 constitution established 17 "Autonomous communities". Their autonomy means that the INE has no control over the statistical offices of these regions, but is dependent upon their good will. Article 41 of the Statistical law puts it this way : "The statistical services of [central] government and the autonomous communities *may* conclude agreements relating to the implementation of statistical operations with a view to improving the efficiency of the latter or avoiding unnecessary expenditure and duplication of effort." The regions are certainly a source of unnecessary expenditure and duplicated efforts. How, first, did such a situation arise ?

3. The problem of the regions

Regionalism is a problem in Germany, too, where it succeeds in adding to complications and costs, but the competences of the Federal Statistical Office and those of the Länder are clearly delimited by the structures of the Federal republic. In Spain, matters are less clear. The reasons for this are partly historical, but mainly the result of the political climate of the immediate post-Franco period. Spain as a nation was formed gradually from its regions, and under the Habsburgs was a decentralized state. It was only the Bourbons, after 1715, who established the centralized state, à la française, which Spain was to remain for the next two and a half centuries. Franco's dictatorship undoubtedly awoke nostalgia for regional independence. The magic - if explosive - word "autonomy", together with a soft focus as to future developments, was sufficient to win for the 1978 constitution the support of the entire spectrum of political parties, from extreme left to extreme right, creating the 17 "autonomous communities". With hindsight it is plain that it would have been better to create a federal structure, German style, with clearly-defined competences, in place of the "autonomous" struc- tures which went less far than the federal model but which are now evolving in that direction, overburdened with de facto situations, unnecessarily duplicated efforts and waste which will be difficult to do away with. All 17 regions enjoy executive, legislative and judiciary powers; the Basque Country and Navarre alone have revenue powers, whilst the others receive transfers from central government. But what is now the right of two will ultimately be the aim of all; in the end Spain will be a federal state with a senate representing the regions.

Spain's regional problem is aggravated by a form of separatism which, in the absence of serious differentiating sociological factors (race, religion, system of values) is difficult to comprehend. Basque and Catalan separatism is essentially language-based. Certain Spaniards take the view that these regions should put their autonomy on the line, hold a referendum and, if a majority favours independence (which is far from certain) leave the Spanish community. Others are opposed as a matter of principle to this line, for which no provision is made in the Constitution. Spain is thus left in a precarious state of equilibrium, evolving towards an unidentified new state. Some Spaniards hope that these domestic problems will be solved by the birth of Regional Europe - independence within European interdependence. This, though, is unrealistic : it assumes the foundation of a strong Europe, which is something the twelve Member States would rather do without, and a Europe of many more than 12, which is something else they would rather not see.

The consequences for statistics of this situation are wasted resources and efforts, and a situation in which the INE has no information about what is being done in certain regional offices. Catalonia and the Basque Country send their statistical publications to NSIs around the world, as though they were national statistics - the reader will search them in vain for any mention of Spain. The INE must make every effort to reach cooperation agreements with the regions, but only if they so desire, for nothing can be forced on them, not even a nomenclature - unless perhaps if it is European. It seems easier for the INE to conclude agreements with a foreign NSI than with certain Spanish regions. This is a serious problem, and for the present, no solution is in sight.

4. Compliance and confidentiality

The 1945 law on statistics had established compulsory compliance as a general principle. From the point of view of the INE, the 1989 law consequently marks a step backwards, in that, following the *principle of lawful* authority, it provides for compulsion only when it is specified in a statistical law enacted for the purpose. An attempt was made in 1990 to circumvent this obstacle by appending to the implementing provisions of the Budget Law a list of 25 periodical statistics for which there was an obligation to respond in accordance with Article 7 of the Statistical law. It remains to be seen whether this provision will serve indefinitely as a legal basis for future surveys.

The *penalties* are innovative. Neither refusal to respond nor breach of confidentiality attract more than a fine, whilst most Member States punish breach of confidentiality with imprisonment. The threat of only a fine creates a disparity which, from the point of view of European statistical confidentiality, is regrettable.

On the other hand, the law is explicit and relatively severe on *statistical confidentiality*. It makes clear that the provisions apply to all statistical departments, and not just the INE.

The law makes no *exceptions* to the principle of confidentiality. Individual data may be communicated only between statistical services, for statistical purposes, and then only on condition that the receiving statistical service has the necessary means of preserving confidentiality. Unlike Belgium, France and Germany, Spain does not permit the communication of individual statistical data to a ministry or government department even for planning or urban and rural development purposes.

The INE will not supply samples from a census or survey for either scientific or market research purposes. *Municipal registers* cannot be updated from population census results as they can, for example, in Germany : a five-yearly administrative survey, independent of the census, is held for that purpose.

At the same time, the law sets out what is not a statistical *secret* (Article 16) : "Registers which represent no more than a list of establishments, enterprises, holdings or bodies of whatever type are not the subject of statis- tical confidentiality if they list only the name or style, address, branch of activity and class of number of employees. The last-named may be disclosed only if the declaring unit has not explicitly witheld its agreement."

Spanish statisticians take the view that despite the guarantees given to the population and restated in questionnaires, the public does not trust statistical confidentiality. Individuals and businesses give statisticians the same data as they give to the revenue services. This means that statisticians get no data on true incomes or on the parallel economy. From the point of view of statistical information, confidentiality might just as well not exist.

5. Planning

As in the case of Italy, the national statistical plan is the cornerstone of the new Spanish law. The law defines the plan in these terms : "The national statistical plan, approved by Royal decree and valid for four years, shall be the principal instrument regulating the statistical activity of Government ..." (Article 8). The four-year plan currently under discussion covers the period 1993-96. It shows the following features :

(1) The plan covers the whole of the statistical system : INE, ministries, autonomous communities and local authorities. It it to be prepared and coordinated by the INE;

(2) It covers four years and is set out in stages, in annual programmes each of which is implemented by Royal decree. Difficulties may arise regarding compliance, since the approval of the plan by Royal decree conflicts with the requirement of a basis in law for individual surveys;

(3) The plan is not just a guideline : it should (in principle) be implemented in full;

(4) For the first plan at least, new surveys may be deemed to be investments and regarded for budgetary purposes as extraordinary expenditure.

6. The right to privacy

A general law on the right to privacy in computer applications is in the process of being drafted; its

second article will state that statistics remains outside the scope of the new law and will continue to be governed by the law on statistics. The INE was successful in convincing the Commission drafting the law of this. The existing statistics law already contains the essence of a data protection law.

Article 4 of the law, for example, states : "The collection of data for statistical purposes shall be subject to the principles of confidentiality, transparency, specificity and proportionality", all of which aim to serve the protction of data.

Article 11 of the same law requires statistical services to give interested parties adequate information on the nature, the characteristics and the aim of the statistics being produced. Its second indent adds : "Data capable of disclosing ethnic origin, political opinions, religious or ideological beliefs or, generally, any aspect of the individual's private life, shall be supplied on a strictly voluntary basis. As a consequence of this such data may be collected only with the explicit agreement of the interested party." The reader will have noted that the law does not prevent such questions being asked, but makes them subject to the consent of the respondent; a far more reasonable solution than prohibiting them outright.

Article 18, finally, states that "Data permitting the direct identification of declarers shall be destroyed immediately their retention becomes unnecessary ..." Does this mean that the population census returns should be physically destroyed? It seems possible to infer the contrary from Article 19 of the same law, which deals with archives : Data ... may be consulted by the public only with the explicit consent of the individuals concerned, or 25 years after the date, when known, of their death, or 50 years after the date the data were collected."

7. Scientific impartiality and political pressures

Few statistical laws put into so many words the principle that statistics is a scientific activity. The German law is a model of its genre, stating in its opening article that Federal statistics shall operate under the principle of scientific independence, impartiality and objectivity. Spain's law has the merit of tackling the same problem, though it does so in a more roundabout fashion, and not until its 30th Article : "For the exercise of its technical competences, the INE shall enjoy the necessary functional capacity to ensure its operational impartiality. The term 'technical competences' shall be taken to mean competences relating to statistical methodology, the publication and dissemination of results, and the conception of systems of rules governing concepts, definitions, nomenclatures, etc."

Statistical independence is further strengthened by the fact that civil servants cannot be removed from office, and that the INE is currently headed by highly experienced technical statisticians. But this is not to say that the future holds no threat : the system is not secure against the political mores of the age. Appointments to senior administrative posts are highly politicized and, despite the introduction of recruitment competitions a number of years ago, the party in power operates a policy of large-scale appointment of its own members. A card-carrying applicant can always be found. In senior administration, the Government of the day is free at any time to shift officials from post to post, moving them to a different department if they are civil servants, or returning them to their original post (e.g. university teaching) if they are not.

8. Unemployment and the submerged economy

Although unemployment has nothing to do with statistical organization, an explanation of Spain's surprising unemployment rate may interest the reader. Unemployment in Spain, as in Ireland, is running at around 16% of the active population, compared with less than 10% elsewhere in the Community. Certain observers have noted that if this figure were accurate, Spain would be in the midst of a revolution. The reality is less of a drama : Spain (like Italy and Greece) has a thriving parallel economy, tolerated by Government and estimated to account for between 10% and 20% of Gross National Product. Many Spaniards work at home for industry - and it has been suggested that this is the only way in which Spanish business can remain competitive. The Minister of Labour has indicated that fraudulent claims to benefit - that is, unemployment benefit paid when not due - might be of the order of Pta 200 bn (1.5 bn ECU), or some 200 000 individuals out of a total unemployment figure of more than 2 million). Such an estimate would be on the conservative side.

However, the unpleasant jobs in Spain are already performed by immigrants, and this naturally increases the unemployment rate amongst the native population. Most of the causes of unemployment are structural - the high birth rate of the past, the rapid rise in the activity rate for women, the flight from the countryside, the structural crisis in industries such as steel and shipbuilding, and the return of migrants to Spain.

9. Conclusions

Spain's statistics can be summed up in terms of strengths and weaknesses.

The country has an ultra-modern statistical law, which sets the INE at the heart of a vast statistical system, with the task of coordinating it. A number of institutions have been set up for the purpose, and the law has the merit of attempting to tackle the vexed question of relations with the autonomous regions. Still on the plus side, the INE has a relatively generous complement of university-trained staff.

Overall, however, the statistical system is under-staffed, and that is a major problem. A great deal remains to be done in the statistical departments of ministries, and resources and efforts will probably always be wasted in relations with the territorial sub-divisions. The INE is poorly placed to abandon its 50 provincial offices, through which it has a total coverage of the country, when with the autonomous communities it is obliged to negotiate cooperation agreements whose successful conclusion is more or less dependent upon the regions' good will. The principle of legality, under which all new statistical work must have a basis in law, is hardly calculated to make the INE's task any easier. From a technical point of view, a great step forward would be made if the INE could manage to have national identity numbers adopted for individuals and businesses.

At least the fundamental planning which underlies the new statistical law enables these challenges to be contemplated.

STATISTICS IN FRANCE : THE SPIRIT OF RENÉ DESCARTES

CONTENTS

Abbreviations

CNIL = Commission Nationale Informatique et Libertés
CNIS = Conseil National de l'Information Statistique
ENSAE = Ecole Nationale de la Statistique et de l'Application Economique
INSEE = Institut National de la Statistique et des Etudes Economiques
SSM = Services Statistiques des Ministères

STATISTICS IN FRANCE : THE SPIRIT OF RENÉ DESCARTES

**For here is nothing but order and beauty,
luxury, calm and sensuality**

Ch. Baudelaire

The overwhelming impression left by an examination of France's statistical system is that of formidable coherence. The system appears to have sprung monolithically from the loins of Zeus himself, just as Athene sprang from his head, fully-armed, with the panoply of statistical training, personnel services, work planning, co-ordination ... a single, coherent, whole. Such conceptual unity dates from before the war, a period dominated by a particular conjunction of political and intellectual thinking, expressed in the post-war French notion of planning(*) and is the result of a profound faith in statistics. With hindsight it is difficult to see how such faith in the system failed to achieve the grand slam of interconnecting files, and hard to believe that in this respect at least the Danes are still ahead in the game. The reason is undoubtedly that the efforts in the 1970s to achieve this were overtaken by the reaction in favour of protection of individual privacy which rapidly resulted in the 1978 law on computers, databases and liberties, which has since become one of the principal worries of the French statistical system. The fact remains that this law relates only to individuals, and not to businesses. And while the Commission Nationale de l'Informatique et des Libertés (National Commission on Computing and Civil Liberties) is haunted by the thought of interconnected files, its defence brief does not extend to businesses. For this reason file interconnection (or, as it is still charmingly known, "mating" [appariement]) is an open sport, a fortiori since the Law of 23 December 1986 added an Article 7 bis to the Law on Statistics, setting out as a principle the statistical usability of administrative data, thus opening to statistics the Aladdin's cave of administrative records. This law nevertheless loses its significance and flexibility in so far as the CNIL's brief does include one-man businesses.

The cornerstones of this structure, which retains all its individuality, are (amongst others) tailor-made statistical training, decentralization coordinated by the INSEE, integration of statistics and studies, the planning of work, and acceptance by public opinion. Lastly, it is worth wondering whether there is any state supervision such as is hinted at by the legal instruments.

(*) Although the efficiency of this coordination is founded essentially on practices and decisions which have no basis in legal instruments, and are the result more of opportunism and accustomed practice. Witness the fact that the Ministry Statistical Services are as a rule run by INSEE senior management. Note, too, that the INSEE's independence is nowhere codified in law or regulation ... (INSEE note)

1. Statisticians tailored to suit

INSEE is apparently the world's only statistical institute which has within its walls a top-level training school for statisticians. Portugal has recently followed France's example, but only in the form of an agreement between the national statistical institute and the New University of Lisbon, and it is the latter which will be responsible for the teaching.

In France the training school is one of INSEE's own directorates. It was founded by the decree of 14 June 1946, and changed its name in 1960 to become the Ecole Nationale de la Statistique et de l'Application Economique (ENSAE - the National School of Statistics and Applied Economics), with the task of "... providing training for specialists in statistics and economics who will (later) be required to serve in senior posts in public administration, and in public, semi-private and private enterprise. In particular it shall provide training for officials of the administrative and executive grades of the INSEE. It shall contribute to the dissemination of scientific and technical knowledge relating to statistical method, economic analysis and forecasting, economics, information processing, demographics, and quantitative sociology. It shall participate in research in those domains ..."

The school's courses are of two or three years' duration, depending on the student's origin - they all either come from the Grandes écoles or have either a first degree in economics or a master's degree in mathematics. The ENSAE has some 300 students, or around 100 graduates in any academic year.

Whilst the NSIs of other countries frequently have difficulty recruiting graduates with the right training, the ENSAE produces graduates with a high level of mathematics, statistics, computer science and economics. This is a sound guarantee of technical competence, and also provides a basis for consistency in a public statistical system in which most staff have been through the same training process. Two accusations have been levelled at the ENSAE, however :

- certain employers have complained of a lack of a practical dimension in the ENSAE curriculum of management, statistical engineering, etc.;

- the lack of diversity in recruitment is only partially offset by the presence of university graduates (economists, sociologists, etc.). The fact is that they do not reach the higher managerial posts.

It should be noted in passing that this sysyem was extended to Africa in 1963 with the establishment of the Centre de formation des statisticiens économistes des pays en voie de développement (Centre for the training of statisticians and economists from the developing countries - CESD), which has gradually been transferred to Africa and which, though it can be reproached as excessively mathematics-oriented, has made a significant contribution to the training of management for Africa.

2. Centralized decentralization

French statistics is decentralized both geographically and operationally, and yet remains an integrated and coordinated whole. How do they manage it ?

Geographically INSEE comprises 22 Regional Directorates, each of which has a Regional Economic Observatory (OER), plus statistical services in the four overseas departments, which have the dual purpose of collecting basic data and of providing study services and statistical information distribution at regional level. Of a total INSEE staff of around 7000, some 4500 - almost two-thirds - work in these regional offices, acting on instructions from Paris. The hallmark of these staff is a high level of mobility : at managerial levels at least, staff move regularly from INSEE to the regional directorates and back.

Operationally, decentralization is highly developed. There are 19 Ministry Statistical Services (SSMs) employing a total of almost 3000 (including 500 senior managment from INSEE), or around 30% of the total of public service statistics staff. The largest SSM is in Agriculture, with 700 staff - almost as many as the entire Greek NSI, and more than twice the number of graduates in the Belgian NSI.

SSM middle managers are mainly INSEE personnel on secondment, who continue to receive their salaries from INSEE. As a rule administrators are loaned to the Ministries and continue to receive their INSEE salaries, paid from the INSEE budget. Executive grade staff are released temporarily to the ministries, and continue to receive their salaries from INSEE out of appropriations transferred to the INSEE budget by the ministry in question.

Finally, a small number of middle managers on secondment in the ministries receive their salaries from the ministry, drawn on its own budget.

All these staff are integrated into the hierarchy of their ministry, and may occupy posts of responsibility - head of service, department or division ... but even they usually return to INSEE head office, where they then continue their careers. They are to a certain extent the INSEE's eyes and ears in each ministry, but coordination is ensured by more than their presence :

- First, by the training each staff member has received at the ENSAE;

- Secondly, by the representation of ministries and SSMs at the Conseil National de l'Information Statistique (National Council on Statistical Data - CNIS) which has various tasks :

  . drawing up the annual statistical programme for the whole of the statistical system, with a view to avoiding duplicated efforts;

  . discussing, in the Committee on statistical enquiry appeals, "administrative" fines imposed anywhere in the statistical system;

  . discussing, in the Committee on statistical confidentiality, the problems of confidentiality arising in statistical services;

- The Law of 23 December 1986 brought in the principle of the statistical usability of administrative data, allowing the INSEE or SSMs access to administrative records without the possibility of their confidentiality being used to justify refusal (Article 7 bis of the Law on Statistics);

- Representation on the National Commission on Nomenclatures (Commission Nationale des Nomenclatures), for which INSEE provides the secretariat;

- Lastly, by the representation of the SSMs on the National Commission on Nomenclatures (Commission Nationale des Nomenclatures), for which INSEE provides the secretariat.

Taken as a whole, these provisions make up an original system which combines the advantages of decentralization - easier access to administrative records, closeness to the populations surveyed and data users - with those of centralization - coordination of concepts, methods, surveys and publications.

Note : that because of the operational decentralization of the French statistical system, some care is required in studying it. Data on the staff and budget of INSEE are easier to find than those on the SSMs. Roughly speaking, INSEE figures must be multiplied by 1.5 to arrive at some notion of the public service statistical system as a whole.
The directory of the INSEE differs from that of other centralized NSIs in that it makes no reference to statistics of agriculture, industry, etc.

3. Statistics and studies together

Another feature of INSEE is reflected in its very name : the fact that it is responsible for both statistics and studies. This is found in only a handful of countries : France, Luxembourg, Portugal, and a few French-speaking African countries which adopted the INSEE model. In France this philosophy reigns not only in the head office but in the regions, where regional studies are effected. It is much less pervasive in the SSMs than within INSEE, first because most ministries have their own economic research department(s), often working in tandem with policy departments; secondly because the SSMs frequently face resources problems and more often than not have to sacrifice research for statistical production. INSEE has no monopoly in studies, of course, although it does in statistics, and the role of the CNIS does not extend to studies.

The notion of studies is broad, however, and also embraces commentaries on, and analyses of statistics, including national accounts, short-term economic analysis, short and medium term forecasts, and econometric models.

4. Planning and the esprit de système

France is the country of Descartes, whose avowed intention was to " ... conduct my thoughts methodically, and to create always such complete enumerations that I may be assured that I omit nothing." France is also the country of forward planning. It is no surprise to find that in the realm of statistics there is a development plan. This exercise is carried out within the CNIS. In parallel with the procedure for drafting the forthcoming year's budget, the INSEE and the SSMs submit to the CNIS their plan for surveys in the following year (t+1). After discussion this list will receive the nihil obstat of the Minister for the Economy, in the form of a ministerial decree. The minister's authority to sign this decree is delegated to the Director-General of INSEE.

The CNIS also indulges in medium-term statistical planning in the form of five-year survey programmes, updated every two years. The latest five-year programme covers the period 1989-93 and considers in detail the relationship between the French statistics plan and Eurostat's.

Lastly, in 1988/89 the CNIS and a group of experts undertook a long-term planning exercise, entitled "Statistical information in the year 2000 : continuity and change". This produced reports by eight separate teams of long-term analysts, plus a general conclusion.

5. Personnel and productivity

With the laudable aim of reducing the burden of tax, the French civil service has begun to slim down its staffing. The staff of the INSEE is being cut at an annual rate of 0.7% (50 jobs) and those of certain SSMs by several percent each year. It is remarkable that the recent population census was carried out without the recruitment of any auxiliary staff other than enumerators.

The underlying theory is that productivity improvements should enable fewer staff to produce more work, particularly through :

- mainframe and desk-top computing;
- the use of administrative data sources, facilitated by computerization;
- improvements in job training, and the increasing proportion of administrative and executive grade staff to clerical and manual grades. In other words, of intellectual as opposed to operational staff.

6. Publications

INSEE differs from other national statistical institutes in two respects as far as written publications are concerned :

- The importance accorded to studies - the analysis of statistical results, short-term trends, short- and medium-term forecasts, models - obviously, because of the dual function reflected in the institution's name, whereas other NSIs are only statistical offices;

- The development of national accounts. The annual report on the nation's accounts is a statistical temple, impressive in both its scale and the depth of its analysis. That is no doubt the result of the particular place in French planning occupied since the second world war by national accounts - the exploration of the economy's structure, and the basis for forecasts. Are French national accounts any better, though, and any more reliable, than those of other countries?

The audit currently being effected by the Eurostat GNP Committee should tell us one way or the other. One of the characteristic features of an accounting system, after all, is that it can be perfectly coherent and at the same time totally wrong. Coherence tests have become very numerous : this apparent strength may conceal certain weaknesses in the figures. It has driven out the balancing items which other countries (United Kingdom, Luxembourg) have retained, both in business accounting data and in the households account, as well as in the adjustment for real to financial data.

From the statistical point of view the onlooker is struck by the speed with which the annual survey of industry is analysed. The preliminary results of this pillar of national accounting are available in the July following the year of account, and more or less final results six months later; in some countries a further year is needed.

7. Compliance and secrecy : some original features

In France as elsewhere, the statistical system is built upon the twin pillars of compliance and confidentiality. Their implementing regulations have some original features.

7.1 Compliance

Neither the INSEE nor the SSMs have the power to decide that a survey is covered by a requirement to respond. For that to happen, the survey must first be submitted to the CNIS and included in the annual programme of surveys published in the Official Journal in the form of a ministerial decree. Outside the programme, statistical offices may hold voluntary surveys, and this is what happens for the family budgets surveys, or the short-term economic surveys, for example.

Another particular feature is the penalty for failure to respond. This is an administrative fine, and consequently imposed by the supervising minister - in fact by the Director-General, acting on delegated authority. But first the case must be submitted to the the Statistical enquiry appeals committee of the CNIS for its opinion. Different though it may be, the system does not appear particularly efficient : it is cumbersome and the fines are derisory, at a maximum FF 2000 (300 ECU). This procedure applies only to legal persons : in the case of individuals the penalty is decided by the courts.

7.2 Confidentiality

Absolute statistical confidentiality in France applies only to data on physical persons. For businesses the law goes no further than to state that statistical returns shall neither be published nor used for any economic restrictive measures (i.e. social, fiscal, etc.), but that individually identifiable data may be forwarded to ministries for administrative purposes. The Industry Ministry, for example, has access to the Enéide data base, which holds various individual data on various businesses. It is also reasoned that because statistical data are not very fresh, they cannot be ultra-sensitive.

The Industry Ministry claims that businesses accept this restriction on confidentiality, preferring this efficient lightening of the burden of administration to an uncompromisong conception of confidentiality. The ministry cannot, of course, publish individual data, nor may use individual data as a basis for decisions likely in any way to harm industry. Case law has decided, however, that the refusal to grant subsidy, based on knowledge of individual data, does not count as a restrictive economic measure.

Decision-makers must be able to run simulations using individual data in order to prepare and assess the efficiency of industrial policy measures.

Businesses are given the opportunity at the CNIS to defend their views and any restrictions they may wish to impose. The CNIS also has the final word in matters of statistical secrecy : the Decree of 17 July 1984 established the CNIS Committee on Statistical Confidentiality for businesses, with the job of examining any problems which arise through the implementation of the rules on confidentiality, in particular those governing exceptional access to data on individual businesses. The Committee is presided over by a member of the Conseil d'État - the final court of appeal - and for each case submitted to it a panel is formed comprising four representatives each of the administration and business, and one representative each of trade unions and regional and local users of statistical data (see para. 9.4).

8. Accepted by public opinion

The foregoing paragraphs show that public opinion in France accepts a less rigid definition of statistical confidentiality than in some other countries.

However, the public's acceptance of the country's statistical service is due only in part to its confidence in the system's ability to keep data confidential. It is more the result of the efforts made to be helpful to business and to the general public, and of a generally high level of confidence in the French civil service, and despite a "less government" current which has now been running for a number of years.

The response rate for the principal annual industry survey is estimated at 86% of all businesses and 95% of all turnover. In order to stimulate interest in the statistics, each firm surveyed is sent a copy of the overall results, together with a statement of its own position compared with the average of its branch.

The success of the 1990 population census demonstrated that there is no opposition to statistics.

Finally, a large number of requests for data are made via the regional economic observatories and the SSMs.

The principal worry for French statistics would appear to be the restrictive tendency in CNIL case-law, which is multiplying to barriers to statistical surveys.

9. Government supervision

This question is considered only from the point of view of the first impressions received by a foreigner reading the legal situation. The supervision is in all probability no more than apparent. It is expressed inter alia in the following facts :

9.1 Legal situation of the Director-General of INSEE

As a civil servant the Director-General is guaranteed job security, but not necessarily security of tenure. This is different from the situation in ofther countries (Belgium, Denmark, Germany, Ireland, Luxembourg, Netherlands) where the Director-General is appointed until he retires or resigns. The French government may move the Director-General of INSEE on to another post. In other words he can be removed from office (*) even without being found at fault if, for example, he takes too independent a line. This is a fortiori the case since at no point does the law state explicitly that INSEE shall perform its mission with scientific impartiality - as does the law of Germany. In practice such government interference can be discounted for the following reasons :

- It would require a decision by the government rather than the supervising minister. Unanimity on such a matter is improbable;

- In view of the role and status of INSEE, dismissal of its Director-General would have political repercussions :

  . The opposition would not decline the opportunity to embarrass the government with questions;

  . The press would take the matter up, and amplify it.

The Director-General has in fact recently had to adopt an independent line in connection with the consumer prices index. The government wanted to exclude tobacco from the index for public health reasons; INSEE had to oppose the change on statistical grounds.

9.2 Presidency of the CNIS

The Decree of 17 July 1984 states that the CNIS is to be presided over by the Minister of the Economy and Finance. The minister rarely turns up, however - only one year in three - and his presidency is therefore more symbolic than anything else. The reality is that for political reasons the CNIS is presided over by someone from outside INSEE, even though technical considerations mean that the Director-General of INSEE would be preferable.

9.3 Ministerial approval for surveys

For a survey to be compulsory it must have the nihil obstat of the Minister of the Economy. The procedure is as follows :

- The annual programme of compulsory surveys is first submitted to the CNIS for opinion;
- The Minister rarely amends the programme thus approved by the CNIS;
- Authority to sign the Ministerial decree approving the programme is delegated to the Director-General of INSEE. His signature thus appears in the Journal Officiel beneath an order which effectively instructs him.

9.4 Ministerial intervention in the disclosure of data on individual businesses

Article 22 of the Decree of 17 July 1984 on the CNIS states that under certain circumstances data on individual businesses may be divulged to a third party, by decision of the two ministers concerned (the Minister supervising INSEE and the Minister responsible for the department which conducted the survey) after receiving the opinion of the CNIS Committee on Statistical Confidentiality. It may seem strange that this decision lies in political hands rather than those of the Director-General of INSEE; in practice it is the Director-General (or, in the case of an SSM, the head of service) who takes the decision on the delegated authority of the Minister.

(*) Although it is fair to note that no Director-General of INSEE has been removed from office since 1946

9.5 Powers and constraints on INSEE

To sum up, INSEE is probably as independent of the government as any other National Statistical Institute.

Its power to coordinate other public-sector statistical services is greater than elsewhere.

But there are constraints on its action. They come first from the fumbling intervention of the CNIL, next from budgetary and accounting inflexibility, and lastly from INSEE's lack of influence on the budgetary decisions taken by Ministers on matters statistical, at a time when the law provides explicitly for precisely such intervention.

10. Conclusions

Turning again to Baudelaire, we can say that France's statistics remain "order and beauty, luxury". Calm and sensuality have been driven out by the CNIL : as far as the "data protection" reaction goes, France must eat at the same table as Germany, Portugal, Luxembourg and a number of other countries. Statisticians lament that the CNIL treats statistical secrets like any ordinary form of administrative confidence, and does not recognize the special nature of statistics. Some believe that a reaction is welling up against the excesses of case law which is constantly erecting new barriers, claiming the defence of freedom, as though statistics' only aim were to restrict freedom. But such a reaction can scarcely come from the statisticians themselves, for, if it came to a public debate, they could not rely on the support of the media.

It is essential for European statistics to ensure that such excesses are not reflected in the European directive on the subject. Instead, the Directive should take its lead from the greater wisdom of the British, Danish and Irish laws, which confine themselves to protecting data, and recognize the special nature of public statistics.

A further danger may come from decentralization. We have seen the high degree of integration enjoyed by the Regional Directorates in INSEE, the guarantee of mobility, and the fact that Head office instructions are actually implemented. An injection of federal regional independence, along the lines of the German, Italian or Spanish models, would be a sure way to upset this fine balance.

STATISTICS IN THE COUNTRY OF BARDS

THE IRISH CSO

CONTENTS

Abbreviation

CSO = Central Statistical Office

STATISTICS IN THE COUNTRY OF THE BARDS : THE IRISH CSO

According to estimates, Hibernia (Ireland) is about half the size of (Great) Britain and the distance between the two is the same as that between Gaul and (Great) Britain.

Caesar. De Bello Gallcio V 13

As Caesar noted a long time ago, Ireland is a fairly large country but a bit remote. It is hidden from us, as it were, by Great Britain and we know relatively little about it. However, it is a warm-hearted country, a land of bards and poets, with a Celtic temperament. The tourist coach drivers even sing as they drive along! The statistical service, whose letterhead features a harp, was for a long time directed by a bard, two of whose statistical poems are reproduced in the annex.

1. Revolution or evolution ?

The foreign observer coming across Irish statistics for the first time has the impression that they are in a phase of transition and modernization; he is inevitably struck by a certain analogy with Portuguese statistics. As in Portugal, there was first of all an inventory of shortcomings and a set of recommendations for modernization, and then the drafting of a new Statistics Act. In 1985, the Government published a White Paper entitled "A New Institutional Structure for the Central Statistical Office", and then in 1986 it created a National Statistics Board to devise a strategy for statistics, which was published in 1988 in the form of a five-year plan for 1988-1992 followed by a new plan for 1993-97; there have been annual reports on the implementation of this plan. Lastly, a new statistical law has been drafted. Does all this constitute a statistical revolution then?

The chiefs of the CSO do not think so. According to them, there is evolution but not revolution, steady progress from year to year rather than sudden transition and modernization. It is pointed out that the CSO was one of the first government departments to computerize its work from the 1970s onwards, resulting in substantial productivity gains from one year to the next which have somehow enabled the 10% cut in staff imposed by the Government in its public finance reform programme to be absorbed. But we do not have any reserves, says Director Donal Murphy, we have no fat; we are pared to the bone. Any new statistics have therefore to be approved by the Government, on whom we are dependent for resources. Some EC statistical demands, particularly much of the detail, are not a national priority. Because of Irish public expenditure constraints Community support is necessary if these requirements are to be fully met.

As part of its decentralisation policy the Irish Government announced in June 1991 that the bulk of the CSO's activities will be relocated in Cork in 1994. This move will give rise to new difficulties; the CSO will have to find statisticians in Cork, as some of its personnel will prefer to stay in Dublin and work with other Governement departments.

2. Impact of european cooperation

Can it therefore be said that accession to the Community in 1973 marks a turning-point in the history of Irish statistics, since Eurostat's statistical requirements must have fostered an awareness of their shortcomings and, moreover, European cooperation has brought Ireland both technical and financial assistance ?
The Irish authorities' reply to this question is definitely more positive. It comprises four parts.

a) Since 1973 developments in statistics have in many instances been propelled by the Community. Thus, the labour force survey has been imposed, modernization of agricultural statistics is under way, and progress is expected on the national accounts front.

b) In the future, European cooperation will again play the key role. The priorities have been clearly laid down: the gaps in services statistics must be filled, the balance of payments and national accounts improved. Ireland is the only country that has just a quarterly consumer price index; there appears to be no national demand for a monthly series - only pressure from the Community can lead to the introduction of a monthly index.

c) The European Regulations and Directives are in our interest, say the chiefs. But we feel that the European surveys sometimes go too far and cover too many variables and too much detail, making them unwieldy and leading to pointless costs and unwelcome reactions. The EEC is developing a statistical system for a world trading power. Our staffing resources pose a problem. It is essential for us to be involved in the European statistical programme in order to be informed and to be able to influence the advance of European statistics. But

there are about 115 meetings a year in Brussels and Luxembourg, and we have only 30 university qualified statisticians compared with 60 in Belgium, 300 in Portugal and 140 in Denmark ; the journeys to Luxembourg meetings take up considerable time.

d) Lastly, the CSO cannot benefit directly from Community subsidies. The new Act does not provide for financial autonomy either. All subsidies therefore go to the State budget. The CSO could not really utilise Community subsidies unless a regular amount were received each year ; in that case, arguments could be put forward for extra staff. Financial autonomy would be an encouragement for Eurostat to show its generosity.

3. Statistics of small dimension

Along with Luxembourg, Ireland is a prime example of "small-scale statistics", and the authorities never fail to stress this aspect. Statistics is subject to the law of increasing returns to scale, since there are certain more or less constant overheads, particularly the methodological preparation of surveys, the number of surveys is almost the same as in a large country and, lastly, the sampling fractions are greater and the staff cannot be as specialized as in a large country.

A small statistical office is at a disadvantage for all the above reasons. In order to make up for this disadvantage, additional staffing resources (particularly university qualified statisticians) are essential if the CSO is to be able to cope fully with the European Statistical Programme.

4. British influence ?

When Ireland gained independence in 1922, British statistics were not exactly very advanced, so it can hardly be said that the Irish took them as an example. Unlike British statistics, Ireland's are centralized, because this is the only logical and economic solution for a small country. Moreover, there are no regional statistical offices in either country, mainly for reasons of economy. Irish statistics are subject to a strong British influence as regards methodology, on account of the common language and the many personal contacts. This influence is exerted via publications(1).

(1) Ireland was part of the United Kingdom for centuries and did not gain its independence until 1922. The strongest imprint of this colonization is the common language, but Great Britain also influenced the architecture of Irish towns and country residences, as well as cultural relations in the broad sense. There are still "special relations" between the two countries: the Irish settle freely in Great Britain and even acquire the right to vote; the bulk of Irish emigration is to Great Britain (and the United States). Trade with Great Britain accounts for about 60% of Irish imports and almost half its exports It is certainly no coincidence that Ireland joined the Community at the same time as Britain.
Even though down through history there have been tensions between Ireland and Great Britain, strong economic and cultural links exist between both countries. Many of the great Irish intellectuals preferred to settle in England : Oscar Wilde, George Bernard Shaw, Sean O'Casey, Samuel Beckett, to name but a few. Of the three Irish winners of the Nobel Prize for Literature - Shaw, Beckett and Yeats - only the latter spent his life in Ireland.

5. The quest for progress

Whether evolution or revolution, things have undoubtedly changed since 1985. This quest for progress is reflected in the following initiatives.

5.1 National Statistics Board (NSB)

An advisory Statistical Council was provided for under the 1926 Act, but this was not set up on a permanent basis. In 1986 the Governement established the National Statistics Board on an interim non-statutory basis pending the passing of the new Statistics Act. This Board has two special features compared with similar institutions in other countries, intended to make it efficient :

- a very small membership (as in Denmark) - eight persons - but nevertheless representative of the main interests: agriculture, industry, services, universities, research, Government. The Director of the CSO is a member and the CSO provides secretarial services;

- a task limited to directing the CSO's strategy. In other words, the Board does not concern itself with individual projects, but solely with the CSO's major problems.

5.2 Medium-term statistical planning

The NSB's first job was in effect to draw up a five-year plan for 1988-1992, published in 1988 under the title "A strategy for statistics" and dealing in particular with the main gaps in statistics (services, balance of payments and international trade, national accounts, reform of agricultural statistics), use of administrative sources, computerization and the new dissemination policy. Every year the NSB reports on the progress made. The second programme covers the period 1993-1997.

The Board meets 4-5 times each year. At these meetinggs it is briefed on CSO's work progress and considers particular strategic issues as they arise.

Its opinions are couched in very general terms.

5.3 Increased productivity

According to the CSO, there are, apart from day-to-day improvements in organization, two major sources of increased productivity, namely computerization and training.

Efforts are being made to maximise the productivity gains of computerization at all levels: collection - processing - analysis - office automation. An experiment is under way on the use of portable computers for the annual labour force survey.

Moreover, an increase in the number of university qualified statisticians at the CSO is an absolute necessity, since at present there are only 30 of them.

5.4 The new Statistics Act

The draft bill contains mainly formal innovations but few radical changes, e.g.:

- the formal creation of the CSO by law, although it has been in existence since 1949;

- the Head of the CSO will have the title of Director-General. He will have quite wide-ranging statistical powers, within the limits of the budget appropriations;

- explicit recognition of the CSO's statistical independence;

- the National Statistics Board is statutorily established (in fact, it has been working since 1986);

- the use of administrative sources is affirmed and the CSO's coordinating powers increased;

- the CSO remains attached to taoiseach's (i.e. the Prime Minister's) Department.

- finally, there will be no more imprisonment in case of a violation of confidentiality or of the obligation to respond.

However, the weaknesses of the past are still there: lack of financial autonomy and no affirmation of the importance of statistics and an increase in resources. On the contrary, under new administrative budget arrangements introduced in the Irish Civil Service in 1991, the CSO's budget for the three years 1991, 1992 and 1993 will, in return for a greater degree of operational autonomy intended to produce some increased productivity, be reduced by 2% a year in real terms, except where new activities are specifically approved by the Government.

6. Special features of the legal system

6.1 Basic law

The statistics law dates from 1926, which proves both that Ireland had a law on statistics at an early stage and that it waited a long time to update it. A new draft law submitted to the Government some years ago is still waiting to be presented to Parliament.

The 1926 Act (slightly amended in 1946) is above all a law laying down implementing procedures for surveys: obligation to provide information and statistical confidentiality.

NB: Every Act is designated by a serial number and the current year. There is no penal code either, which complicates the problem of penalties, especially as regards statistical confidentiality.

6.2 Implementing Orders

The Statistics Act is implemented by means of Orders of the Prime Minister, whose portfolio includes statistics. These Orders are, however, few and far between, being confined to certain major censuses. Most surveys are therefore carried out on a voluntary basis, and thus there are no penalties for non-response.

6.3 Penalties

The new Statistics Act will do away with the prison sentences laid down hitherto for cases of non-response and infringement of statistical confidentiality; the system of fines and imprisonment differed, moreover, for cases of non-fulfilment of the obligation to provide information and infringement of statistical confidentiality. The new Act unifies the penalties and merely lays down a fine in the event of both failure to provide information and infringement of statistical confidentiality.

6.4 EEC Regulations and Directives

Community legal acts are generally immediately applicable without any other formality. It is only in exceptional cases that the Prime Minister issues an implementing Order, as with the Regulation of 10 June 1990 on statistical confidentiality; the Order of the Prime Minister provides that the EEC Regulation enters into force on 24 April 1991 and that infringement of statistical confidentiality is punishable by a fine of up to one thousand pounds. Whereas in other Member States infringement of professional secrecy is punishable by a term of imprisonment, Ireland imposes only a fine albeit large.

6.5 Data Protection Act (1988)

As in Great Britain, this Act is a relatively recent one; it ensures protection of data and not protection of privacy. It is not a cause of concern for statisticians, unlike in France, Germany or Luxembourg.

7. Importance and findings of the population census

7.1 Special features of the population census

Whereas in other countries the census is usually taken every ten years, in Ireland it is held every five years, the main aims being to measure the impact of emigration and to keep track of the total population and its geographical distribution. As a result, the CSO's activity follows a five-year cycle - the term crops up again in its publications and reports to the Government - with the number of staff and expenditure reaching a peak every five years.

Ireland is probably the only country whose population has fallen: from 6.5 million in 1841 to 4.4 million in 1861 and 2.8 million in 1961 - it is only since then that it has gone up again to the present figure of 3.5 million, and even then only thanks to an exceptionally high birth rate that has dropped only in recent years. Except during the 1970s, the flow of emigration has continued unabated. Between 1981 and 1986, Ireland suffered a net loss of a further 137 000 citizens to emigration.

The census questions are very specific, and some are not usually asked in other countries e.g. :

- (full date of birth);
- marital status, divided into ten headings, including three for marriage and four for separation, there being no divorce unless it was pronounced in another country;
- religion;
- the Irish language: the aim is to find out whether a person speaks Irish (Gaelic), or Irish and English, or whether he or she can read but not speak Irish;
- residence: now and a year ago for persons having lived outside Ireland: country of previous residence and year of return to Ireland;
- education received and technological and scientific qualifications obtained;
- agricultural activity: main - subsidiary - no agricultural activity.

The census of 21 April 1991 did not give rise to any major problems; there were very few cases of refusal, a number negligible out of a million households. However, there were problems of contact, especially in Dublin.

Lastly, Ireland was keen to combine the population census with the census of agriculture, for reasons of economy (saving of 10% or 1.5 million pounds) and consistency between the two censuses. The CSO, which employs a total of about 400 permanent Office staff at present, had to take on 250 temporary office staff and use 3 700 temporary field staff, 1 300 of whom have been kept on for the census of agriculture in June 1991. These field staff were recruited through newspaper advertisements. There were 20 000 applications (on account of the high unemployment, running at 17% of the population). First of all, about 30 senior supervisors were trained, who then trained another 300 intermediate supervisors and these in turn trained the 3 400 enumerators.

7.2 Findings of the censuses

7.21 Religion

Over a period of 100 years, i.e. from 1881 to 1981, the proportion of Catholics went up from 89% to 93%, while followers of the Church of Ireland fell from 8.2% to 2.8% and Presbyterians from 1.4% to 0.3%. On the other hand, the number of persons with no religion or not replying increased from 0.2% to 3%.

7.22 Language

The number of Irish-speakers fell by half between 1861 and 1926, from 1 million to 0.5 million, but since 1926 it has been rising all the time, reaching 1 million again in 1986, i.e. 31% of the population.

This figure is, however, only 5% between the ages of 3 and 4; between the ages of 10 and 19 it rises to 50%, then falls in inverse proportion to age. This shows that Irish is learnt at school and not at home, and that it is lost again once schooling has finished.

7.23 Place of birth

In 1986, 93.7% of the population had been born in Ireland, 4% in Great Britain, 1% in Northern Ireland and 1.3% elsewhere.

7.24 Immigrants

This information is yielded by the question on previous residence. Approximately half of all immigrants come from Great Britain, many of whom would have been born in Ireland.

7.25 Marital status

In 1986 the distribution of the population was as follows :

single	: 56.9%
married	: 36.6%
widowed	: 5.3%
separated	: 1.1%
of whom: divorced elsewhere	: 0.12%
persons having left home	: 0.33%
annulment of marriage	: 0.03%
legal separation	: 0.2%
other	: 0.37%.

7.3 Census of agriculture

Ireland has a long tradition in this field: from the mid-19th century to 1951 the census took place every year and since then every five years in principle, but the 1991 census was the first one since 1980. The reason for this change is that members of the local police force used to act as enumerators, but their services were withdrawn. Agricultural statistics are currently being reorganized and modernized with the help of Eurostat. The avowed aim of the present census is to set up a register of farmers so as to provide a reliable sampling base for the sample surveys that take place in June and December in the form of a postal survey among 25 000 farmers, with a response rate of 80%. The total number of farmers is estimated at 200 000, and the survey is intended to obtain indicators of the structural changes taking place in agriculture.

8. Conclusion

Despite continuous progress, Irish statistics face serious difficulties, of which two must be stressed.

First, a lack of resources, notably of qualified personnel. The percentage of university trained people is, as in the case of Belgium, the lowest in the Community : 7% of the CSO workforce; it should double or even triple. "We are pared to the bone." The budget is decreasing and the CSO has no financial autonomy which could eventually help it to find other resources.

Secondly, one cannot help mentioning a lack of interest on the part of Government authorities. Though the statistics law dates back to 1926, a new draft bill has been waiting for years to be presented to Parliament. To this must be added the Government decision to transfer the CSO to Cork, for reasons of administrative decentralization and country planning. As if there had not been enough difficulties ! The CSO lacks personnel, but is supposed to find statisticians in Cork ! In fact, it will lose some of it staff, which will prefer to work for other Government departments in Dublin for reasons of personnel convenience.

The attitude of firms also justifies some concern. Non-response rates are extremely high, about 50% - which causes additional costs and loss of time. A more favorable attitude on the side of Government would of course have a positive impact on the general climate in which statistics operates.

Finally, certain technical conditions are lacking, such as an exhaustive register of firms.

All in all a very difficult situation. In former times, the Irish sent monks to christianise us. They deserve to be aided by the Community in order to advance their statistics.

ANNEX

STATISTICAL POEMS by T.P. LINEHAN

A RESPONDENT

I am an "observation"
I was captured in the field
My conscience said "cooperate"
My instinct said "don't yield".
But I yielded up my data
Now behold my sorry plight
I am just a poor statistic
Who no more has any right.
The Bootstrap and the Jacknife
Oh the tortures I've endured!
Stochastic asymptosis
(Be advised - do not be lured).
Seasonal analysis
To isolate my trend
Factorial paralysis
Near brought me to my end.
They analyse my variance
Logarithmetise my means
Inspect my correlations
And then range twixt both extremes
But I have a plan to beat them
I'll climb up into the trees
Pretend I am a chi-square
And get freedom by degrees.

THE PRODUCER OF OFFICIAL STATISTICS

Information for the nation !
That in short is our vocation.
If others have the facts we need,
Give us access too, we plead.

But confidentiality,
The height of topicality,
We protect with strict propriety
For this do not us chide !

The individuality
Of each and every entity
Is grouped with Other Company
- Its identity we hide.

We publish then an aggregate.
This makes the user cogitate
and sometimes even speculate
On which is what and where.

Some users do not hesitate
To make themselves an estimate
Sometimes its just a guessimate
Plucked figures from the air !

The constrict of an aggregate
Does many users irritate
We do our best to mitigate
The impact of our rule.

Apart from mere protectiveness,
We practice no selectiveness,
Our aim is user friendliness,
Our goal - a data pool.

THE PARADOXES OF ITALIAN STATISTICS

CONTENTS

Abbreviations

ISI	=	International Statistical Institute
ISTAT	=	Istituto Nazionale di Statistica
SISTAN	=	National Statistical System

THE PARADOXES OF ITALIAN STATISTICS

Statisticians of all classes, unite!

Tantae molis erit Italicam condere SISTAN
(How great will be the effort in forging
the SISTAN of Italy)
Virgil, Aeneid I, 33 (1992)

By establishing in 1926 the Istituto Centrale da Statistica, known ever since as ISTAT, Italy hoped to bring under a single roof all the many statistical activities which had grown up over a century. In recent decades new forces have pushed towards decentralization, in particular through the creation of new, partly-independent regional authorities alongside the existing middle-tier administration, the provinces, and through the generalized use of computer technology, which has allowed civil servants to generate vast amounts of quantitative data from existing departmental records. There was a consequent need for a tightening-up of authority, failing which the statistical system was threatened with total disintegration. This was the aim of the decree of 6 September 1989 on SISTAN, the National Statistical System, and reorganizing ISTAT. This new legislation marked the end of a lengthy period of reflection which had begun with a critical evaluation of the Italian statistical system by the International Statistical Institute.

1. The 1982 report by the international statistical institute

In February 1982 four members of the ISI, Sir Claus Moser, Mr Jacob Bjerve, and Professors Richard and Nancy Ruggles, presented a report to the President of the Italian Council of Ministers, entitled "*Aspects of Italian official statistics : review and proposals*". The report analysed the shortcomings in leading Italian statistics, and offered recommendations on the general organization of statistics, including in particular the following.

ISTAT, the report noted, should not content itself with collecting data : it should analyse the figures. This would not only make work more interesting for the young graduates recruited by ISTAT, it would make publications more attractive to users both official and private. Italian statistics was, the experts considered, relatively under-staffed; such a move should help recruitment, which should concentrate on economists. "Collect less and use more"; and efforts should be made to enrol the help of the media.

The national statistical programme should be debated by a national statistics council comprising 12 to 15 of the country's leading figures. The aim must be to create an integrated statistical system which made the maximum use of the data already held in government departments and offices.

The pressures of efficiency, integration and coordination argued for a centralized system, the experts claimed; the tendency towards decentralization had to be resisted. Analysis could be decentralized in such a way as to associate the ministries with the work, but the production and dissemination of statistics should be done centrally.

Finally, the experts considered that the Italian government should turn its attention to the organization of statistics, and make it a priority.

2. SISTAN

The 1989 decree-law established SISTAN, the national statistical system, but retained ISTAT, to be known henceforth as the National (rather than Central) Statistical Institute. The essential idea is that every public service department should have its own statistical office, and that their activity as a whole should be coordinated by ISTAT. SISTAN would comprise in all several thousand statistical offices, made up as follows (information provided by Sgra Arangio-Ruis at the September 1991 ISI conference) :

Number of SISTAN statistical offices

A - Central government		
1	Ministries	22
2	Independent agencies	5
3	Social Security Institutions	12
4	Research institutes	4
5	Economic agencies	12
6	Others	3
	sub total	58
B - Local authrolties		
7	Autonomous regions & provinces	22
8	Prefectures	93
9	Provinces	95
10	Chambers of Commerce	94
11	Local health authorities	600
	SUB TOTAL	904
	Total A + B	962

C - Municipalities : several thousand ?

ISTAT's coordination role comprises :

1) Establishing SISTAN's three-year and annual programmes, in collaboration with the SISTAN component organizations;

2) Technical support;

3) Definition of norms;

4) Information dissemination;

5) Training support.

To this end ISTAT is assisted by a Steering Committee (Article 17 of the law - Committee for the Guidance and Coordination of Statistical Data) comprising 22 members representing the component organizations.

3. Centralization or decentralization ?

It is at this point that the first paradox appears : the law apparently replaces a centralized system with an entirely decentralized system, since there are now going to be statistical offices in every corner of Italy - in ministries, government offices, and provincial, regional and municipal authorities - totalling several thousand.

But this decentralization is, according to Dr Rey, the President of ISTAT, only apparent. The system remains centralized. What the law has sought to do is to codify a system of working relations which was already partly in existence, and to legitimize ISTAT's role as coordinator. Operationally the changes are limited : ministries will produce their administrative statistics, but only exceptionally will there be any question of their being delegated the surveys currently effected by ISTAT. ISTAT will remain at the centre of the web, and will continue its surveys, but in future its methodological responsibilities will be greater. It will require a team of methodology specialists able to advise outlying departments.

ISTAT's new role is expressed in the establishing of a national statistical *programme* which will be binding on all components of the system, and in the setting-up of the *Steering committee*. The Committee will play its part in establishing the programme, and will publish binding directives and guide- lines for the entire system. ISTAT has for many years had a three-year programme; what is new and will require establishing is the SISTAN programme.

The change will be radical, and implementing the system will require four or five years for the central government components alone - that is, the relatively easy collaboration with ministries. Integrating the other components - agencies and local authorities - will be harder.

Statistics is about to become a management and monitoring tool in the hands of government. The idea of statistics, and a statistical viewpoint, has be be inculcated into every component of the system. The civil service has to adopt statistics as a working instrument, and at every level use not only the data produced in the department, but those produced nationally.

4. An expanding system ?

The 1982 Moser report concluded that ISTAT needed more staff, particularly economists capable of analysing the statistics. And to implement SISTAN, ISTAT would also need methodologists.

Three comments are called for here :

(a) ISTAT currently has no more staff than the Dutch statistical service. There is no easy means of telling how many staff are employed on statistical work in the ministries and local authorities, but at a rough guess the local authorities might account for as many again as ISTAT, and the ministries for at least as many again. That gives a total of between 8000 and 9000, or 1.4 per 10 000 population. This is almost the Community average, although France and Germany exceed that average.

b) At least 15% of ISTAT's posts are currently unfilled. This is because of the difficulty in finding suitably qualified specialists, and because of the lack of mobility within the Italian public service.

c) Reorganization has been accompanied by a change in conditions of employment for ISTAT's staff. They remain civil servants, but are now governed by conditions more akin to those of research scientists. This change has brought about an increase in salaries of between 20% and 30%, although the increase is linked to a system of competition and promotion staggered over several years. Those who failed the competition have become embittered, but nevertheless this is the right course, and will ultimately produce a higher level of staff qualification than in other administrative departments. Note also the close ties between ISTAT and the academic world : many senior staff have teaching duties. And the Director-General of ISTAT is one of the dozen or so officials at the highest echelon of the Italian civil service.

Lastly, establishing statistical offices at every level of the administration will be possible only if large numbers

of staff are recruited by ministries, government agencies and regional, provincial and local authorities.

So the total staffing of SISTAN will rise. It remains to be seen whether this is feasible from the budgetary point of view, given the precarious situation of Italian public finance and the need for austerity imposed by the prospects of economic and monetary union.

In all events, the format for SISTAN currently proposed includes manifest duplication - and sometimes triplication - of efforts outside central government - the provinces, regions and chambers of commerce. Some compromise will have to be found between central government, the regions and the private sector.

5. Financial independence

The system certainly goes a very long way in proposing the creation of new structures; it seems perhaps to go not quite far enough in finding the necessary resources. ISTAT's non-budgetary income accounts for no more than about 3% of its resources, and a policy has yet to be announced aimed explicitly at the development of own resources as, for example, in Denmark or Portugal. In its absence, we have to wonder where the money will come from to develop SISTAN.

6. Mobility and the lack of it

To this problem must be added the fact that mobility in SISTAN is in no way comparable to that in the British Government Statistical Service, or even the statistics services of French ministries. Inter-service mobility in Italy would amount to a revolution, for the terms of civil service employment are different, and are not conducive to mobility. There may be hypothetical grounds on which a horizontal function could be established for the system's statisticians, but it will have to be organized. The only possibility currently open is for ISTAT to second its officials to other SISTAN services, in order to give them the technical support provided for in Article 15 (d) of the new law. Whether ISTAT has the staff to do so is another matter.

7. Neutrality or political pressure ?

ISTAT seems in theory to be sufficiently armed to deal with any attempted pressure from public authorities. Article 12 of the 1989 law establishes a Statistical Information Guarantee Committee answerable to the President of the Council of Ministers, with a role as watchdog over the impartiality and completeness of statistical data, and the observance of statistical confidentiality.

It will not escape the reader's attention, however, that the President of ISTAT, who is the principal authority, is appointed for four years, renewable once only, and this offers the government a fulcrum at least during the President's first mandate. Similarly, the mandates of the Director-General and the Directors are now limited to five years, renewable.

At the same time, the extreme decentralization provided for by the 1989 law does appear to pose a number of problems : statistical secrets are naturally better kept in a single highly-centralized organization than when a large number of departments have access to confidential data.

8. A double-headed system ?

Italian statistics has for many years been answerable to two masters : the President, who must be an academic - a university professor -and the Director-General, who is an ISTAT official. In practice it seems that in the past the Director-General took the leading role, in that he took charge of the day-to-day management of ISTAT and represented it in international bodies. The situation has clearly changed both de facto and de jure. Under the new law the President occupies the highest position. He is one of ISTAT's authorities, alongside the Steering committee, the Management Committee and the Board of Auditors. He attends the meetings of the Statistical Information Guarantee Committee. He chairs the Steering Committee, of which the Director-General is not even a member. The President is chairman of the ISTAT Board; the Director-General is its secretary (Article 18 (3)) - a surprising arrangement, even if the secretaryship of the Board is an important office. ISTAT's organigram shows the Director-General as answerable to the President for the coordination of the technical, scientific and administrative activities of the head office directorates.

The theoretical apportionment of responsibilities sees the President coordinating SISTAN, and the Director-General coordinating ISTAT.

In the past the Director-General has always been a civil servant, unlike the President. However, Article 2 of the new law states that the Director-General and the head office Directors are appointed on the proposal of the President, by the ISTAT Board. Five of the Board's ten members are university professors or research establishment directors; the Board has a similar right to dismiss the Director-General and the Directors.

Taken as a whole, these limitations must make the job of Director-General less attractive than it used to be. The new system is a potential source of tension between ISTAT's two heads.

9. A complex institutional structure

Reading the new law on statistics and its sequelae, one is struck by the number of bodies involved in the decision-making process :

- The tasks of the former High Council on Statistics are now split between three bodies : the Committee for the Guidance and Coordination of Statistical Data (Steering Committee), the ISTAT Board and the Statistical Information Guarantee Committee (Watchdog Committee);

- ISTAT's Board, chaired by the President of ISTAT, must not be confused with its Mamagement Committee, chaired by the Director-General. The latter has no basis in law, but was established in the Decree approving the organizational set-up of ISTAT;

- Five separate bodies are involved in approval of the statistical programme :

  1. The Steering Committee, for approval;
  2. The Watchdog Committee, for opinion;
  3. The Interministerial Committee on Economic Planning, for discussion;
  4. The Council of Ministers;
  5. The President, for approval by decree.

- Note also that ISTAT must call a national statistical conference at least once every two years (Article 15 (4)), and that its accounts are subject to audit by a three-member Board of Auditors and an annual report to the Italian Parliament;

- Finally, ISTAT's burden of bilateral relations with the myriad other SISTAN component members must not be overlooked.

The question has to be asked : is all this not a little too complex ?

10. Ambitious project or pure utopianism ?

ISTAT believes that the new system can only be implemented gradually, over five years at least.

But is the project realistic ? A number of elements make one wonder whether it will be possible to implement the whole of this ambitious project.

The first is financial. How can the money be found to recruit the staff SISTAN needs, when the public finances are in such a state that Italy is being forced to cut public expenditure ?

The number of statistical offices planned is certainly too great, and will lead to duplicated efforts in the territorial sub-divisions.

Civil service terms of employment, together with bureaucratic inflexibility, mean that the necessary mobility of staff between SISTAN component services will be difficult to achieve.

One may also doubt whether ISTAT's powers to coordinate are adequate. In theory the national statistical programme becomes legally compulsory following its approval by Presidential Decree. But this is only the theory : no penalties are set out for failure to comply. In addition, Article 17 of the law provides for the creation of the Committee for the Guidance and Coordination of Statistical Data, with the task of "... guiding ISTAT in its dealings with the statistical information services comprising SISTAN". But how can the message be got across ? The 95 provinces are represented by one individual; the 95 chambers of commerce by a second. How will it be possible to obtain the cooperation of the hundreds, or even thousands of administrations making up SISTAN ? ISTAT's prime task will be to use bilateral relations to ensure that these administrations cooperate effectively. Is this not assuming too much of ISTAT's staff, and perhaps even of the discipline of the public service ?

How, finally, will it be affected by Italy's chronic government crisis, and by the displacement of the rule of law in certain parts of the country by organized crime ? There could be two effects on statistics ; first that the data obtained are no longer a true reflection of reality, and secondly that occult powers prevent lawful institutions from cooperating fairly with ISTAT.

The experiment is being pursued with a great deal of dynamism and enthusiasm, but there are reasons enough to doubt its chances of success.

MINIATURE-SCALE STATISTICS : LUXEMBOURG'S STATEC

CONTENTS

Abbreviations

STATEC = Central Service of Statistics and Economic Studies

MINIATURE-SCALE STATISTICS : LUXEMBOURG'S STATEC

Small is beautiful

For all that Luxembourg is a Grand Duchy, it is very small - so small that it is with some diffidence that one dares quote any figures at all. In terms of population it is 1/150th of France, in land area 1/200th. It must neverthe- less be said that despite being dimensionally-challenged, Luxembourg has not been a failure : the country has no unemployment, and its per capita income is the highest in Europe, 20% higher than that of France, and 15% higher than Germany's. The point is that Luxembourg has been able to capitalize on the benefits of sovereignty in a very small area. At the same time, sight must not be lost of the limitations of Luxembourg's size, the overheads and the handicaps.

1. Slow to start

With its concern to find the most economical solution, Luxembourg is sometimes slow off the mark. Statistics developed late because there was some reluctance to pay the necessary price. Throughout the nineteenth century the authorities believed that it was sufficient to collate administrative data; in the early years of this century it was believed that high-school leavers were all that was needed as staff. The first statistical office was established in 1900; modern organization dates from only 1945; the first graduates were recruited only in 1962.

In the same way, mechanization and then computerization were slow to be introduced. Hollerith punched card machines were introduced only in the 1950s, and remained in use until around 1970. The statistics of consumer prices were computerized only in 1992 : the last problem to require solution.

But despite its difficult beginnings, Luxembourg statistics has evolved into a modern system.

2. The burden of overheads

The small scale of the nation renders its statistics relatively costly. There are four reasons for this :

- *Overheads* - the methodological preparation of surveys, staff training, organization of control systems - are almost as great as in a "big" country;

- Sampling rates are in inverse ratio to the absolute size of the universe to be measured. Whilst Luxembourg's population is 1/150th of France's, and 1/26th of Belgium's, the samples used for the 1963/64 Family Budgets Survey were 2/9ths the size of France's and 2/5ths the size of Belgium's. This is an extreme example, but it remains true that the cost of surveys is always greater in a small country;

- There are few experts, and the possibilities of *specializing* are consequently limited. Furthermore, the advantages of the division of labour cannot be fully exploited;

- Small size also presents certain *specific problems* :

  Membership of the Belgo-Luxembourg Economic Union (BLEU) has complicated the calculation of the external account (imports and exports, balance of payments);

  Many problems, including complex matters such as the computation of constant prices, are dealt with by only a single expert. This is dangerous, and poses a threat of methodological or even computational error.

  Finally, statistical confidentiality is de rigueur, and Statec's attitude unflinching, bringing it into conflict even with its own minister and with the Prices index commission. Statec's view is that even the names of the shops it visits and the prices it records are secret.

3. Three principles making organizational strength

Opposite these weaknesses there are strengths. In 1945 Luxembourg introduced statistical legislation whose three principles were maintained through the 1962 reform which underwrote Statec's freedom of action.

1) *Compliance* is established as a general principle and may be invoked for any survey without further formality. Statec also conducts voluntary surveys, but only because it finds them useful. As in the Netherlands, the Statistical service carries out any survey its Director deems to be in the interests of statistical science. Over the years Statec has built up a network of surveys, initially of agriculture and industry, and extended it since the 1970s to include services. This network is now a smoothly-running machine, providing basic data on the branches of output and for national accounts.

2) There is no exception to the rule of *secrecy*. It was preferred to keep the concept intact, and this has the advantage of simplicity and security.

3) Finally, the law refers specifically to the priciple of *centralization*. In a small country centralization is necessary for reasons of economy and rational organization. Three examples illustrate this.

First the *monopoly* of surveys, which Statec must defend from the ambitions of other departments.

Second, the *duality* of statistics and economic studies reflected in Statec's full name, the Service central de la statistique et des études économiques, since the merger of the two services in 1962. Two separate services had been set up by the government in 1945, the Office de la statistique générale and the Service d'études et de documentation économiques, but it had not been easy for the two to coexist, and merger became inevitable. The benefits of the merger have been a fertile interaction between statistics and studies, but at a cost borne by no other CSO except France's INSEE. Within the Community it is Statec which must prepare Luxembourg's economic budgets, addressed to the Directorate-General for Economic and Financial Affairs and the Economic Policy Committee, and it is Statec which must play host to economic experts from the OECD, IMF, NATO, etc. for preparation and discussion of studies on Luxembourg's economy.

The same principle of centralization has governed *Luxembourg's computerization policy* : the government set up the Centre informatique de l'Etat (Government Computer Centre) for all public services, including Statec. The advent of the personal computer has brought considerable decentralization, but for mainframe computers centralization is still the rule.

4. A good learner

Compelled as it is to export, Luxembourg has always sought international integration : the German Zollverein in 1842, the BLEU in 1921, Benelux in 1948, the ECSC in 1952 and the EEC in 1958. In statistics the country has followed the example of other countries, adopting the statistical systems and classifications of the international organizations. That resolved the problem of how to construct a national system whose international significance would have been limited. Luxembourg has thus always been a supporter of statistical integration, out of necessity but also out of conviction : if statistics are to be of any use, they must be comparable.

As far as classifications are concerned, Luxembourg adopted the NICE without delay, and subsequently the NACE, etc. It also applied the OECD "simplified system" then the normalized system of national accounts, and finally the ESA. A few problems have arisen, the greatest of them being the treatment in national accounts of the banks, which have become a major branch of the Luxembourg economy; their work is essentially exported, whilst the ESA treats them as general costs of domestic output. There seems to be a need here for the ESA rules to be amended, for the international organizations seem not to have shown the understanding required by scientific impartiality.

Statec can also benefit from international cooperation in several ways :

- through the methodological support provided either via the statistical programme or by the temporary loan of experts or software;

- through financial contributions. These contributions take account of Luxembourg's high sampling rate for the Labour force survey. Regrettably, Statec does not enjoy financial independence, and is unlikely to gain it from the plans to reform government accounting. The cash is effectively lost to Statec.

There are also *disadvantages*, however :

- The burden of the European Statistical programme is becoming so great that unless care is taken, it will absorb the whole of Statec's resources, leaving nothing for national policy and scientific matters. It must not be forgotten that Statec has the task of carrying out studies and making economic forecasts, and these are threatened by the pace of statistical work.

- Secrecy is vital in a small country. Statec has always taken an absolute attitude towards confidentiality. The attitude of the Commission towards statistical secrecy is a source of serious concern to Statec.

5. Independent and vulnerable

Although Statec's scientific independence is not mentioned in the enabling legislation, it is nonetheless very largely independent. It decides its own work-programme; the Government has no say, either, in its publishing programme, being simply notified of publications for information. Government designs in 1985-85 to interfere in the methodology of the prices index fortunately came to nothing, but two particular weaknesses are worthy of mention :

(a) The *Conseil Superieur de Statistique* has proved to be a disappointment. This council comprises representatives of business, trade unions and public service departments, plus a number of experts, and it had been hoped that it would prove to be an active source of dialogue. The reality is that Statec's greatest problems frequently pass without comment. The council's annual meeting has been cut down to a single afternoon, and the minutes of the meeting drawn up by Statec are deemed to be the Council's opinion.

(b) More disconcerting is the role played by the *Advisory Committee* on the protection of privacy, which was set up under the law of 31 March 1979 on the use of personal data in computer applications. The Advisory Committee is fortunately competent only as regards data relating to individuals; it has made its voice heard principally in the context of the population census. Here it has adopted the habit of dabbling in questions which are internal to Statec, such as the drafting of questionnaires, going so far as to call for the destruction of completed questionnaires, despite their belonging to the field of public records. The government has not taken the defence for Statec : the 1979 law was drafted by the government and passed by the deputies without Statec's opinion being sought. Although the Committee is no more than an advisory body, the questions it deals with are politically sensitive, and the government usually adopts its recommendations, for fear of triggering a campaign against Statec by ignoring them.

c) Under these circumstances, Statec is reluctant to propose any amendment to its own founding law, necessary though such amendment may be. The risk is too great that deputies might amend the law along German lines, for example by requiring new legislation for any new inquiry. This would inevitably politicize statistics.

6. Conclusions

Luxembourg statistics will always be small in scale. With only a dozen graduates, it is not possible to attempt innovative methodology, nor to produce complete national accounts with full ramifications. For such a small economy, it would in any event be pointless.

But despite its handicaps Luxembourg statistics continue to develop satisfactorily. It is a a rather expensive business : Statec employs 2.4 people for every 10 000 of the population, against a Community average of 1.5. Staff numbers continue to rise, whilst elsewhere the trend is to be cutting staff levels because of the productivity gains resulting from computerization.

Luxembourg has probably been the greatest enthusiast of European construction, but is currently disturbed by certain European attitudes towards statistical confidentiality, which pose a serious threat to an atmosphere of trust built up patiently over many years.

Finally, Luxembourg statistics has benefited from a founding law which provided for a vigorous statistical system. The public opposition to statistics in Germany is echoed in certain Luxembourg circles and by the Advisory Committee on the protection of privacy. These present a psychological threat which will only be lifted if the more positive systems from elsewhere in the Community finish by being adopted right across Europe.

THE QUIET FORCE :
THE NETHERLANDS' C.B.S.

CONTENTS

Abbreviation

CBS = Central Bureau for Statistics

THE QUIET FORCE: THE NETHERLANDS' C.B.S.

There are certain peoples who claim
to be better than the rest.
We have no need to make any such claims;
we know we are the best.

W.M. Thackeray

1. The land of paradox

Statistics is highly reputed in the Netherlands. Yet the public scorns the populations census, and survey response rates are remarkably low.

Take a walk one evening around the streets of any Dutch town. You will be able to watch family life through every window : there are no curtains; no shutters. These cheerful exhibitionists are the people who refuse to allow their sex and date of birth to be included in individual identifiers.

The CBS is an organizational paragon : it knows how many hours of work have gone into a project, and how each of its staff's time is apportioned between projects. Notwithstanding its compulsive accounting, it has nothing in common with the Danish system of statistics based on administrative records : the very idea of a structured identifier is rejected out of hand. This, the country of discipline and rigour, is also the country of hippies and questioned authority.

Paradoxical, too, is the Dutch attitude to Europe. As far as can be established, Netherlands statisticians have taken part in every aspect of the European statistical programme. Unlike the others, who sometimes find that Eurostat is asking too much of them, the Dutch are so well organized that they could cope with yet more. But they have one or two doubts. For classifications, the CBS would say, it is best to stick to world systems. Classifications should be simple and comprehensible to the average reader. The future must not be compromised, other countries must still feel able to join in. Eurostat classifications and definitions do not take sufficient account of specifically Dutch features, and they taste too strongly of the system.

But is the international comparability of statistics not one of Eurostat's greatest and unquestioned achievements ? No, say the Dutch. Definitions and classifications could be accepted on a voluntary basis, as happens world-wide. In the April 1989 seminar on the European Statistical System, Mr xx Begeer, the Director-General of the CBS stated that "integration would be better founded on professional cooperation than on legislation" (Proceedings, p.29).

The CBS has other criticisms of a less fundamental nature. Eurostat is too dependent on the Commission, and its programme is designed exclusively to meet the Commission's own needs. Eurostat's computers are not distinct from the Commission's. Eurostat staff are no longer recruited from the CSOs, and have too theoretical an approach. Does this mean that European cooperation adds nothing? Of course not : services statistics have been developed as a result of Eurostat pressure. And the European Statistical Programme allows a country to review its own programme with a critical eye, which may be no bad thing.

2. Strong but silent

The Netherlands statistical system is extraordinary.

1) Its *legal basis* alone is impressive. Whilst other countries draft epic texts to define the remit of their CSOs and the division of statistical powers, the Dutch take no more than a few lines :

   "Within the limits of available financial resources, the CBS shall collect, analyse and publish such statistical data as its Director-General may see fit for practical and scientific purposes."

   Even these lines are not set out in a law, but in a simple royal decree dating from 1899, which has stood the test of almost a century of application. The mission is simple : to produce statistical data. The criterion : whatever the Director-General believes will be useful. God forbid that in such a system the Director-General proves not to be up to the job ! But the Royal decree covers this possibility too : the Director-General may be dismissed, as indeed may his four fellow-directors, or any other member of the CBS staff.

2) The reason the CBS has things well under control is that the statistical system is *centralized geographically*, operationally and in manpower.

   There is no *geographical* decentralization. The CBS's second office at Heerlen is there only because the government insisted on it for planning purposes.

There is no *decentralization* of operations. The CBS is responsible for virtually all statistics, with the notable exception of financial statistics, which are the responsibility of the National Bank.

The *Director-General* admittedly needs the approval of the Central Statistical Committee for his plan of work, and his minister's approval for any new inquiry, but provided he is fully familiar with the matters in hand such approval is unlikely to present a problem.

It is worthwhile pointing out that four of the last five Directors-General have been academics - Messrs Idenburgh, Goudswaard, Begeer and Abrahamse, and that the two last named had no previous experience of the CBS other than a short introductory spell. The underlying idea is that the CBS is a scientific institution, and that the Director-General should consequently be the guarantor of the scientific quality of the statistics. It is also thought that the necessary qualities are those of a manager who has the determination to run a business with 3 000 staff, as well as a sense of public relations. Familiarity with statistical practice should be learned quickly after that.

3) To this can be added four-year and annual *planning* covering both statistics and computerization.

4) Next, there is the strength in depth represented by a staff of almost 2900, including around 450 graduates. In relative terms the staff of the CBS exceed the Community average by a third - around 2 per 10 000 population, against an average of 1 per 10 000. For budgetary policy reasons, total CBS staffing is nevertheless in decline, from a peak of 3 400 in 1983 it is to be cut to 2 550 by the end of 1993 - though this still represents 1.7 per 10 000 population. A plan to cut back certain statistics already exists, approved by the staff unions.

   The 450 graduates embrace 37 different specializations, including law, languages, history, geography, etc; only 13% are mathematical statisticians, as the CBS is responsible for all statistics. Graduates make up 15% of staff (Germany : 10%; Belgium : 6%; Denmark 22%). It is they who have allowed the CBS to play its pioneering role in environmental statistics, automation of data collection, expert systems such as BLAISE etc.

5) Other original ideas : organization of the service is both centralized and decentralized for *methodology and automation*. A central department exists for both methodology and automation, but each section is also encouraged to develop its own statistical and computing methods.

3. Seamless perfection ?

Such an impressive array of strengths leaves one wondering what weaknesses such a system might conceal. Nobody, after all, is perfect.

Let us begin by observing that the *gambler's instinct* inevitably sometimes results in failure. The avant-garde experimentation in which the CBS indulges can, and sometimes does, lead to disaster. The 1970 census of the population was to be processed in record time using optical recognition, in those days an innovative process. Six years later the data were still not all available, and some would never be. After the abolition of customs records within Benelux for intra-Benelux trade, the Dutch were the leading advocates of a method for recording which led to a prolonged period of chaos.

In addition, there is a sociological problem - the *questioning attitude* of the population despite its apparent respect for statistics. Response rates from enterprises are below the Community average; the Netherlands is one of the few countries where there is no requirement on households to respond. And when the legislator decreed exceptionally that censuses might be held in any year ending in a zero or a one, the law was ignored : the law of 9 July 1970 on censuses of the population was repealed on 22 May 1991, after attempts failed in 1981 and 1991. There is no reason to be proud of a disaster on this scale, which had nothing at all in common with the Danish decision to abandon censuses and construct a different system. That was taken in 1974, some time after a census.

Also for sociological reasons, the Dutch do not have *national identity numbers*. This means that their statistical system, which shares the intellectual strength and innovative character of the Danish system, does not have the possibility exploited by the Danes of accessing administrative data and linking them by means of identifiers common to different sets. Here the CBS has had to make do with random numbers guaranteeing the confidentiality of individual and corporate date; it remains to be seen whether such a method is effective. The reason given is that a national register of individuals would represent a threat to the freedom of the individual, and in support of this they point out that in 1940 Jews were identified by the Nazis from the register. But is that an argument? We are no longer living in 1940, and in any event, are we right to abandon electricity, just because in time of war the enemy would destroy the power stations and paralyse our way of life? And the Nazis were able to identify all the Jews in Poland, Luxembourg and elsewhere without the help of population registers.

4. Conclusion

It is clear that Dutch statistics are amongst the best-organized in the world. There are many lessons to be learned from the CBS, but it is not impossible that the CBS might learn from the experience of other countries in attempting to change certain negative attitudes held by the Dutch population.

PORTUGAL'S I.N.E. - A STATISTICAL CONSTRUCTION SITE

CONTENTS

Abbreviation

INE = Instituto Nacional de Estatistica

PORTUGAL'S I.N.E. - A STATISTICAL CONSTRUCTION SITE

Progenie generosa de Joane ...

Camoës : The Lusiades

Portugal stands at the threshold of a new age of discoveries, this time of a statistical nature.

The nation's statistics are a major construction site. Restructuring began with the Law of 15 April 1989 and the decree of 23 August, which introduced innovative ideas, in particular a large measure of management independence.

These changes are so recent that it is too early to judge their effects, but two observations can already be made. The first is that European cooperation has been a critical factor : it has permitted the Portuguese authorities to realise fully the inadequacies of their statistics, and has brought technical and financial assistance. Secondly, Portuguese statistics are a kind of test bed, and it is interesting to observe the discoveries being made there.

The original nature of the experiment is the result of a political chance : the arrival in power (in 1985/86) of a government with an absolute majority in the Portuguese parliament, which approved a wide-ranging plan of structural reform aimed at supplying the needs of development and meeting the challenges of joining in with Europe, in the light of the failure of other experiments tried since 1974. In this context it is interesting to note that the 1989 statistical law had the unanimous support of parliament. Although intended to eb flexible, this new scheme is being implemented with a systematic approach befitting a highly-detailed plan.

0. The Vilares report of January 1987

Aware of the inadequacies of its statistics, in 1986 the Portuguese govern- ment set up a three-member working party chaired by Professor $$ Vilares, who subsequently became president of the INE. The working party examined the statistical system exhausively, considering its bottlenecks, and examined the systems of other countries. Early in 1987 it made its recommendations. The report published in 1989, "Sistema estatistico nacional. Situaçao actual e propostas de reestructuracao" (The national statistical system : current situation and proposals for reform) was to serve as the basis for the reform law of 15 April 1989.

1. Danger : Men at work

Portugal is still in the age of pioneers and enthusiasts. The key words, which recur time and again, are modernize, innovate, dynamise, motivate, train, develop, restructure. In the INE's main entrance is the architect's scale model of the Institute's extended premises, due by 1994 to multiply four-fold the office space available at a cost of around 25 million ecu.

Restructuring is all around : accounting, publishing, work planning. The old pay scales, which could not compete with the private sector and forced all staff to find a second job, have been abandoned. This has resulted in a whole new psychological atmosphere.

2. The INE's constitution and role

In principle statistical institutions enjoy technical independence and work in scientific freedom. What makes the INE different is that, whilst it remains under the wing of a ministry and continues to draw a budget from government funds, it is no longer a government department but a "public institution with its own legal personality, administrative and financial autonomy, and assets".

Its *role* is defined in sweeping terms by the law and, in addition to the collection of data in the broadest sense (censuses, surveys, use of administrative sources, file management), includes studies, analyses, statistical training and statistical cooperation with the developing countries. There is, however, no provision for economic forecasting or economic modelling in the present phase of restructuring.

The INE currently occupies a *position half way* between that of a government department (it is still dependent on the budget) and a state enterprise (it sells its products).

3. Financial independence

The INE is no longer solely dependent on the state for its income. In 1990 the budget share of its revenue was around 81.8% (a large part of which was to enable it to cope with the housing and population censuses of 15 April 1991); in 1991 this had fallen to around 63.3%; for 1992 the government's share is estimated at 66%.

3.1 The INE has other *resources*, including :

(a) Its own *assets*, including its buildings in particular, over which it has considerable powers of management. It may use the interest accumulating on its own bank accounts. The only restriction is that it may not contract any borrowings.

(b) It may receive *grants*, particularly from European sources. In 1990 such grants accounted for 16% of revenue - 7.8% from Eurostat and 8.2% from other Commission departments. The figure for 1991 was 35%, of which 3.3% was from Eurostat and the balance from other Commission departments.

(c) The INE is making efforts to work to demand - by selling publications (0.3% of the 1990 and 1991 budgets; 0.5% forecast for 1992) and by commissioned work (0.9% of budget in 1990, 0.8% in 1991 and 1.5% forecast for 1992).

The Institute's programme of publications has been completely overhauled, with a large number of new publications including short works aimed at meeting the needs of a wider client range. Free distribution has been cut back.

It is hoped that, in line with the Scandinavian model, own resources will represent a growing proportion of the Institute's total budget, rising from 10% to 20% over five years.

(d) Lastly, even the fines imposed on unwilling respondents will serve to finance the Institute. None have yet been imposed, however; the threat is an ultimate deterrent, rather than a means of raising revenue.

This financial independence is reflected in two aspects of the Institute's organization.

3.2 Analytic accounting

This is based on a daily record of work effected by all staff, and by weekly reports submitted by all departments to central accounts, aimed at estab- lishing the actual cost price of statistics.

3.3 Financial supervision Committee

The 1989 law established a watchdog committee of three members appointed by the Minister of Finance. This committee meets every month to supervise the financial management of the Institute; it delivers an opinion on the budget, the annual report and the annual accounts, and on the purchase or sale of assets. Its financial supervision is preventive, rather than post facto, as in the case of the annual audit of accounts effected by the Court of Auditors.

4. Personnel management

The staff of the Institute are no longer government officials : they have a contract of employment under civil law.

Those already in post at the time of the reform were given the choice between the two regimes, and thus the option of retaining their civil service rights. Those who chose to do so were transferred to the Ministry. Some adaptation problems resulted from the departures which followed this change of regime, but at the same time, the INE was able to recruit staff of its own choosing under the new rules. It was able finally to put an end to the tradition of second jobs, by the simple device of paying a salary which encouraged quality, output, and further training, and which brought salaries into the same league as the private sector. The measures adopted included :

- pay rises, first for the lowest-paid, then for the rest;
- a thirteenth month's pay in the summer, and a fourteenth at Christmas;
- introduction of perquisites - official car, official telephone at home, etc. - for middle management;
- training assistance - private PCs, books, etc.

Salary negotiations no longer take place in the civil service pay round, but directly with the Institute's board, which submits a proposal to the super- vising Minister. This is, naturally, a new responsibility for the management.

The *consequences* of the new system are the following :

- Total manpower has been cut. In international terms the Portuguese institute has few staff, with only 1.2 per 10000 population, compared with a Community average of 1.5;
- Senior management numbers and general levels of qualification have been raised. In December 1991 the Institute had 209 graduates, a quarter of its staff. This is exceptionally high;
- Motivation has been boosted;
- Productivity has increased very substantially.

5. Increased flexibility and power to manage

In addition to the provisions concerning financial and personnel management, there have been innovations which add to flexibility.

5.1 Compliance

The law is meticulous in its account of statistical obligation, and interprets the notion very broadly :

(a) The requirement to respond also falls on administrative departments. The INE has the right of access to individual data held by government departments. It is taken as read that statistical confidentiality has precedence over administrative secrecy except when the law explicitly says otherwise;

(b) The INE has the right to collect data directly from businesses, and to verify the accuracy of such data;

(c) The INE itself may impose fines, ranging from Esc 6000 to 6 million (44 to 44 000 ECU) indexed on the consumer prices index. The fines thus collected go to the Institute's budget.

5.2 Centralization and flexibility

Portugal's statistical system remains centralized in theory, but with a view to greater flexibility the law also provides for :

- Decentralization, through the establishment of regional offices in Oporto (North), Coimbra (Centre), Évora (Alentejo), Lisbon (Metropolitan), and Faro (South), in addition to the statistical offices already established in the two island communities of Madeira and the Azores. These regional offices will be responsible to the INE, but in addition to their role as regional INE offices, they will also form part of the regional organization as regards statistics of exclusively regional interest.

- The possibility of delegating statistical authority to other services. education statistics, for example, currently collected by the INE, could be delegated to the Ministry of Education.

5.3 Transposition of European Community regulations and directives

Portugal, like a number of other countries, is not overburdened by formalism of any kind. The theory goes like this :

(a) Regulations are directly applicable in full. There is therefore no need for any formal transposition into national law;

(b) Meanwhile, day-to-day cooperation with Eurostat is deemed to be adequate proof of Portugal's recognition of the obligations contained in Directives. Hence there is no need for any formal transposition into national law.

6. Modernizing portuguese statistics

Portuguese statistics was, to take up the expression used by a senior member of its administration, "in a state of dormancy". Accession to the European Communities obliged the system to board a moving train. An inventory of shortcomings and lacunae was prepared, and the way paved for restructuring which is now under way. Some aspects of the restucturing are as follows :

6.1 Management training

There are still not enough university-trained statisticians on the labour market. One of the tasks of the INE laid down by the law is

" ... to promote, in cooperation with higher education establishments, the training of managers for the national statistical system :..."

Portugal shares with France the distinction of being the only country where the national statistical institute has a role in university teaching. But whilst in France the ENSAE is an integral part of the INSEE, the Portuguese formula is close cooperation between the INE and the Higher Institute of Statistics and Information Management (Istituto Superior de Estadística e de Gestao de Informaçao - ISEGI), an institute of the New University of Lisbon established in 1989 as part of the restructuring of national statistics.

6.2 Adopting Community statistical norms

Portugal is a small country with limited resources, but it seems to have the intention and the inclination to adopt Community statistical norms - definitions, classifications, the ESA.

6.3 Computerization

Computerization is well advanced. All statistical work is already done on computer, and the analytical accounting system currently being set up is also computerized.

The planning and internal reporting system is likewise computerized. All sections report daily on progress of work to the Planning office, which draws up a list of work in progress and its probable date of completion.

6.4 Work planning

There is an annual statistical programme, and a four-year programme.

The annual programme follows the budget drafting calendar. It takes account of the requirements of the INE, the government, Eurostat, other government departments, and the private sector; it is submitted to the High Council for Statistics for opinion, and lastly to the supervising minister for approval.

The plan for 1991 was the first of its kind to be submitted to the High Council for Statistics. It was in four parts, comprising :

- a brief introduction stressing the priorities of modernizing and reducing the cost of statistics;
- a chart of the organization and staffing of each section. On 31 December 1991 personnel totalled 808, including those in the regional offices in Oporto, Coimbra and Évora;
- a list of the work to be accomplished in order to meet the guidelines laid down by the Management Board;
- a 72-page computer-generated table showing, for each job, the date - to the day - that statistics were expected to be available. Planning gone too far?

6.5 Presentation of publications

Instructions from the Board, dated December 1990, to the marketing and publications department refer to "the statistical aim of modernization, innovation and dynamism", pointing out that the INE's marketing policy must respond to user needs.

The instructions provide a general framework for the Institute's various series of publications, setting out general rules for presentation (methodological notes, short commentaries, presentation of tables, conventional symbols, printing methods, INE logo, etc.), and laying down criteria for distribution, pricing, sales promotion, and market studies.

It may be noted in passing that major publications such as the Statistical Yearbook have in the past been bilingual in Portuguese and French, but that it has recently been decided to switch to Portuguese/English.

6.6 Public relations : press releases

In-house notes dated March 1991 set out the procedure to be followed to ensure that INE work is reflected in the press "as part of the INE's modernization strategy". The "Statistical Notes" for the press are seen as a special medium amongst the means of promoting statistical information. The marketing department supplies the INE's press department with a chronological list of notes to be produced. The notes themselves are submitted to the departments concerned and to the management; they must be drafted in press style in order to enhance their impact.

7. The right to privacy

Privacy is protected by the constitution, and by Law No 10/1991 on the protection of personal computerized data, published in the Portuguese Official Journal of 29 April 1991. Under this law a National Commission for the Protection of Personal Data on Computer (CNPDPI) was established with decision-making powers. It comprises seven members appointed for five years. The decisions of the Commission may be challenged only in the Supreme Court (administration division). The Commission may pronounce on the establishment and management of computerized databases of data concerning the individual and may, jointly with the courts, order the interruption or destruction of such databases. In exceptional circumstances outlined by the law, the Commission may authorize the interconnection of bases.

The more noteworthy features of the law are as follows.

7.1 Surveys of philosophical opinions, religious beliefs, etc.

Statistics is excluded from the ban on computerized records of philosophical opinions and religious beliefs, etc., provided always that no identification of individuals is possible (Article 11). The census of 15 April 1991 included an optional question on religion.

7.2 Interconnection of files containing personal data

Such interconnection is prohibited by both the constitution and the law except in specific instances set out in Articles 24 to 26 of the Law. A specific authorizing law must define the nature of the interconnection and its aims.

This legal prohibition relates only to databases containing personal data. There is no ban on interconnection of other bases (e.g. of businesses).

7.3 Import and export of data

The CNPDPI may authorize trans-frontier transfers of personal data, on condition that the country of destination offers guarantees of protection equivalent to those of the 1991 law (Article 33).

7.4 National identity numbers

The Portuguese Constitution forbids the issue of a unique national identity number to citizens. Each administrative department therefore has its own numbering system. Dates of birth are not used.

8. The INE's governing bodies

Reference was made earlier to the financial supervision committee. There are two other governing bodies ;

- The *Administrative Board*, comprising three members of the institute's top management and two to four administrators from outside the institute. The Board meets once a month to determine the general guidelines for the Institute's work;

- The *Management Board*, comprising the President and the two Deputy Direc- tors-General. It meets weekly to allocate work, and shares responsibility for the Institute's various directorates. Management is collegial, though the President is clearly primus inter pares; he also chairs the Administrative Board, and represents the INE in the wider world, in its relations with the government, international organizations, etc.

One particular feature of the INE's management is that mandates are limited to three years, renewable. This means that there is a theoretical risk of political pressure, although there has neen no recorded instance of such interference, even under the régime prior to 1974. Moreover, the end of the President's mandate would automatically imply the end of the mandate for the other members of the Board of Management.

This management structure is crowned by the *High Council for Statistics*, the "... government body responsible for guidance and coordination of the statistical system at the highest level." The High Council is chaired by the supervising minister, as in France. But in Portugal, its vice-chairman is the President of the INE, and the question is thus whether the vice-chairman is not in effect in charge. The role of the High Council is very wide-ranging, since it must set down the general lines for the country's statistical activity, set priorities, ensure that the national statistical system is coordinated, give its opinion on the INE's plan of activity and report, encourage the use of administrative sources, state its view on the general principles and norms governing the production of statistical data, ensure that statistical confidentiality is respected, and make proposals for the delegation of competences from the INE to other departments.

A majority of the High Council's 24 member's are representatives of public services, together with representatives of the three employers' confederations, the two major trade unions, the national consumers' association, and the universities.

In principle the High Council meets formally twice a year, but a substantial part of its work is performed in its ten sectoral sections.

The Portuguese authorities are enthusiastic about this Council, but it must be wondered whether their hopes are not misplaced. The claim, for the moment, is that every individual connected with the statistical process is motivated.

9. The shortcomings of Portuguese statistics

The talk is all of restructuring and development. It is less easy to find an inventory of shortcomings. They are, in any event, being made good gradually.

For example, Portugal has made serious efforts since 1986 to build up its agricultural statistics. They are, after all, of particular importance in a country where agriculture still employs 20% of the population. Although the agricultural census is only held at ten-yearly intervals, there is a move towards biennial structural surveys. In all, the Portuguese agricultural statistics plan comprises 71 projects.

National accounts, which are in a sense the summation of all statistics, have hitherto been relatively succinct, in that they contained the essential tables, but with no economic commentary and without much detail at branch level. In 1985, however, before Portugal acceded to the Communities, it adopted the ESA as the basis for its national accounts. In May 1992 it began publishing quarterly accounts (one series for 1977-91), with a publication target of three months after the end of the quarter under review.

10. Conclusion

Portugal's new statistical system is both a great step forward and an original idea. It remains to be seen whether certain aspects of the reform live up to the hopes placed in them, for example :

- Will the coexistence of two management bodies - the Administrative and Management Boards - under the chairmanship of the same person, prove top-heavy? Will it start evolving towards a "presidential" system in which effective power is concentrated in a single pair of hands ?

- Will the High Council play the part given to it by the law ? Or will it become a rubber-stamp organization, doing no more than take note of the reports it receives, for the simple reason that none of its members have either the competence or the time to take an active role in the formulation of statistical policy ?

- Can the sale of services ever be developed to the point where it becomes a significant source of revenue ?

- Will they dare implement the penalties for recalcitrant respondents ?

- Will collaboration with other departments live up to expectations ?

- Will they manage to publish on time, in accordance with the year-long programme for the release of the full range of the system's statistics ? It would be a world record if they did.

DISTINCTIVE FEATURES OF BRITISH STATISTICAL ORGANIZATION

CONTENTS

Abbreviations

CSO	=	Central Statistical Office
GSS	=	Government Statistical Service
OPCS	=	Office of Population Censuses and Surveys

DISTINCTIVE FEATURES OF BRITISH STATISTICAL ORGANIZATION

Where there in England but a single religion its despotism would be an awful thing; were there two they would tear each other apart; but they number thirty, and live confortably together.

Voltaire, Philosophical letters

Is it for the reasons suggested by Voltaire that in the United Kingdom the responsibility for statistics is shared by some 50 different administrative departments ? An outsider looking is surprised, and wonders how the British manage to avoid total chaos.

1. Into the labyrinth

Understanding the organization of statistics in the United Kingdom is not easy for those brought up in the cartesian tradition. History and pragmatic decisions have left a number of confusing traces :

1. Side by side with the Central Statistical Office (CSO) and the office of Population Censuses and Surveys (OPCS) - the two central departments with major statistical responsibilities - there exist the statistical services of about 30 *ministries* and departments. Each collects, collates, analyses and publishes its own data. Each has its own head. Collectively they form the Government Statistical Services. (1)

2. In addition, 20 or so further organizations work in "close *cooperation*" with the GSS. These include the statistical offices of the Bank of England, of Parliament, of the government departments based in Northern Ireland, etc. (1)

3. Strangely, neither the CSO nor any other statistical department operates *regional offices*, as is nowadays the practice in most other countries. Surveys are effected by post or by local enumerators who meet occasionally to receive instructions. A few services are based outside London, but usually because of the benefits of relocation.

4. (a) On the other hand, for political reasons, five *Scottish* government departments in Edinburgh, the *Welsh Office* in Cardiff, and a dozen Northern Ireland departments in Belfast collect the statistics of their countries and forward the data to the corresponding London ministries which, in turn, forward to the CSO the totals for Great Britain or the United Kingdom. The Scottish and Welsh statistical offices form part of the GSS; those for Northern Ireland are only associated with it. The rules applying to Scotland, Wales and Northern Ireland all differ : for example the 1920 Census Act and the 1938 Population Statistics Act do not apply in Northern Ireland; the 1979 Agricultural Statistics Act does not apply in either Scotland or Northern Ireland, but does apply in Wales. On the other hand, the 1984 Data Protection Act applies even in Northern Ireland.

   (b) Geographically speaking, five distinct notions must be borne in mind :

   - England
   - England and Wales
   - Great Britain (England, Wales and Scotland)
   - United Kingdom (Great Britain plus Northern Ireland)
   - British Isles (United Kingdom, Channel Islands, Isle of Man)

5. The GSS operates a single system for the recruitment and promotion of statistical *staff*. But some directors, heads of department and other managers of services forming part of the GSS are themselves trained economists (rather than statisticians) and belong to the Government Economic Service. They consequently follow a different career path.

6. Certain departments carry out work *on behalf of others*, e.g. :

   (a) The *Labour force surveys* are the responsibility of the Department of Employment, which receives some financial assistance from Eurostat. It pays for the fieldwork to be done by the Office of Population Censuses and Surveys (OPCS), which has the necessary expertise in its Social surveys division. This Community survey became annual in 1984 and quarterly from 1992, with a sample of 60.000 households every three months.

   (b) Social Surveys Division carries out the Family Expenditure Survey. Prior to 1989 this was for the Employment Department which until then was

(1) See lists in analytic report on U.K. statistics

responsible for compiling the Retail Prices Index. In 1989 responsibility for the RPI was transferred to the CSO during the major reorganisation. OPCS continues to do the actual work on the survey, for which it is now paid by the CSO.

(c) The same reorganization saw data collection from businesses transferred from the Department of Trade and Industry (DTI) to the CSO, together with some 700 staff.

7. Certain statistical services also have *administrative tasks* : In addition to its statistical tasks OPCS manages the registry of births, marriages and deaths and the National Health Service Central Register (NHSCR), from which it also derives some statistics. Diversity on this scale would be unacceptable in other countries, even where separate sections of the statistical service were concerned.

8. Other countries have a basic *statistics law* to govern the general organization of statistics. Britain does not, although there are a number of specific laws on statistics, covering for example the census, statistics of births, marriages and deaths, agricultural statistics, industrial and services statistics, and international trade. Each of these laws sets out the rules and penalties as regards obligation to respond, and as regards statistical confidentiality. Since 1973 this series of Acts has been added to by Community directives and regulations. The rest is covered by voluntary surveys to which the confidentiality rules of the CSO's Code of Practice on Statistical Inquiries applies. The Code of Practice has been presented to Parliament and applies throughout the GSS. In addition, there is the Data Protection Act, 1984 which is described in Section 8-3 of this report.

9. To cap it all, the *budget year* on which the statistical programme is based is not the calendar year. It runs from April Fools' Day to 31 March.

Conclusion

The Director of the CSO has moral responsibility for the GSS; his lot is not an enviable one. He governs an empire which is held together only by his personal diplomatic skills and the good will of his staff. It is nonethless a prestigious job : Director of the CSO, head of the GSS, and leader of the statistical profession, with a knighthood thrown in for good measure.

Let us see how he sets about preventing his sytem from degenerating into chaos.

2. Avoiding chaos

The fact is simple enough : a system such as this, in which everyone is virtually free to do as he likees, is only workable with the British, that is with people who have a quite extraordinary esprit de corps and sense of discipline. Without those qualities the system would disintegrate under the effect of centrifugal forces.

There are nevertheless some objective factors which contribute to coherence and coordination :

1. The system of recruitment and promotion

Government Statistical Service is not an undeserved title : the recruitment and promotion of the senior statistical management follows a procedure analogous to the French system :

- Recruitment is centralized for all statistical departments;
- the CSO monitors careers and promotions;
- mobility is organized : a normal career will take the statistician through several departments;
- promotion is automatic only as far as the grade of Statistician, normally reached at the age of around 30; thereafter merit is the criterion.

Compared with the French system though, there are a number of differences :

- There is nothing which corresponds to the French Ecole Nationale de la Statistique et de l'Administration Economique. Statisticians are recruited on leaving university;

- recruiting statisticians is just one part of civil service recruitment. Their selection board has two extra, statistician, members;

- selection is not based solely on university degrees : the procedure includes two days of interviews and tests;

- the GSS also recruits graduates from other disciplines : psychologists, geographers, biologists, historians, linguists, etc., provided that they have some knowledge of mathematics. They are given six months' intensive statistical training.

The CSO has a staff of five to deal with personnel management.

2. Triennial budget and works programmes

In parallel with the budget procedure, each department prepares a programme of work for the coming financial year, accompanied by an outline programme for the two following years. In effect the programme is for three years ahead. There is no formal mechanism which requires departments to submit their programmes of work to the CSO before they go forward for discussion with the Treasury, but CSO's links with departments are expected to avoid potential problems of redundances, taking account of the European statistical programme, national accounts, etc.

The fact remains, of course, that departmental programmes are influenced principally by the ministries' own requirements, since each department's programme must be approved by the Minister.

3. The Committee system

A statistical department may have one or more consultative committees at which the users of its statistics are represented. But the most important coordination is that resulting from the committees convened and chaired by the CSO - which also provides their secretariat. The aim of these committees is to avoid any duplication of work, to ensure that methods are coordinated, and to create the statistics required for national accounts purposes. However, the CSO has only moral authority, and the system relies on team spirit.

Two committees, responsible for collaboration with the Communities and with international organizations, are chaired by the director of the CSO with his N° 2 as secretary. This is a point to their importance. Economic and social statistics are coordinated by two committees (and their sub-committees) known as the Committee on Statistics for Economic Policy and Committee on Statistics for Social Policy. Finally, the GSS has a Committee on Computing.

On the other hand, there is no national statistical board, at which all the individuals and bodies concerned with statistics are represented : the idea has been mooted on a number of occasions, but never accepted. There is consequently no forum for discussion of the general programme, or of general problems. There is, however, a Government Statistical Service Polity and Management Group which meets three times a year and, as from July 1992, a CSO Advisory Committee, set up as part of the CSO's move to Executive Agency status.

4. The Code of Practice

A number of specific laws govern the collection of statistics on agriculture, on industry, the population, etc., but there is no law setting out the general principles of statistics. This gap has been filled in part by a CSO publication, the "GSS Code of practice on the handling of data obtained from statistical inquiries". This code has been "presented to Parliament by the Prime Minister on command of Her Majesty" in June 1984.

As its name implies, the Code of Practice applies to all the departments forming the GSS, and covers both compulsory surveys, which have legal authority, and voluntary surveys, which have none. Respondents must be told whether or not there is any legal obligation attaching to the survey. The Code sets out eight rules, dealing mainly with statistical confidentiality.

5. The five-year review

There is an ongoing process of 5-yearly reviews of business surveys (not all GSS work); new surveys of businesses are also subject to central coordination. (This review was instituted following a recommendation by the Rayner report - cf infra 5.3).

3. In praise of decentralization

Most countries have opted for a centralized statistical service, on the grounds that the advantages of doing so outweigh the advantages of a decentralized system. In Britain the statistical profession is apparently satisfied with a highly decentralized system which it considers to possess eminent advantages; it considers also that the arguments against decentralization are not well-founded. In 1990 a parliamentary question referred to the report by the Royal Statistical Society which recommended centralizing the British statistical system : the government replied that it had no plans to make such organizational changes.

3.1 The arguments for decentralization

1. Proximity to sources and to users

The leading argument for decentralization is that it keeps statistics close to their sources and to their users. How can the statistical needs of agriculture, transport, health or education be guessed at without close contact with the users ? And in addition, if the statistician is in the same building as the ministry, he has easier access to administrative data, and be may have recourse to its regional offices for getting into contact with people or firms.

2. Budgetary benefits

Each ministry-based statistical service has its own budget, and it is perfectly possible that the sum of the resources obtained by 30 departments exceeds the resources which would be available to a single merged service.

3.2 Answers to the arguments against decentralizing

1. Duplications of efforts

These are avoided by a system of continuous contacts which includes :

- consultations in Committee;
- examination of three-year programmes;
- the five-yearly review.

2. Inconsistency in methods

Coordination must be ensured by means of :

- the Committees;
- the Code of Practice, where confidentiality is at issue.

3. Overheads

A small department has a number of unavoidable and irreducible overheads : secretariat, accounts, library, etc., which have a greater weight than in a centralized department. The response to this is that the departmental statistical service forms part of the ministry, and shares its costs with it. However, this brings us to the most serious argument of all.

4. Political interference

Living under the same roof as an attractive person of the opposite sex can generate impure thoughts. Cohabitation with a ministry and its policy departments can raise the problem of statistical independence. Are membership of the GSS, the existence of the CSO and OPCS, and the Code of Practice enough to preserve a statistics department from political interference ? It is certainly legitimate to doubt it. Concentrating statistics in a single large service physically separate from Government and protected by its own charter is prima facie a safer course than distributing the service over 30 or 40 departments located within individual ministries.

"Integrity" was one of the issues raised by the Moore report in 1989, which in its conclusions recommended centralizing the statistical service. The report produced no direct evidence of political influence, and it is certainly true that such evidence would be of a very delicate nature indeed. But it is not possible to tell what really goes on in the depths of 30 ministries and 20 other statistical services.

The GSS maintains that there is no political interference. If that is true, it certainly makes Britain unique.

4. Government statistical service or national statistical service ?

In most countries the statistical service is known as the "National" Statistical Service. In Britain it is the "Government Statistical Service". This is not a trivial difference. It may be the effect of decentralization, in so far as the sum of ministerial statistical services must logically be the government statistical service. National accounts doees nothing to change the picture : it is the government which needs national accounts to pursue its economic and financial policies. And in 1980 the government of Mrs Margaret Thatcher concluded perfectly logically that if government intervention was going to be reduced, fewer statistics would be needed. Here are some aspects of this notion of a Government Statistical Service.

a) The need for statistics is always justified by the needs of government, and only incidentally by the needs of Parliament or of the general public.

b) The programme of work for individual statistical services must be approved by the ministers before their budgets are submitted to the Treasury.

c) The *print run* of statistical publications is frequently very short - between 500 and 2000 copies, rarely more - and this seems to support the theory that they are intended essentially for civil service reading. On the other hand, these short runs may be partially the result of the large number of publications which is the effect of decentralization.

It may be noted that the *Rayner report* (1980) commented :
"17.1 Information should not be collected primarily for publication. It should be collected primarily because the Government needs it for its own business".

d) Government intervenes even in regulating statistical confidentiality. The Code of Practice, the cornerstone of statistical confidentiality, states that it has the approval of ministers. An identifiable item of data on statistical units may be communicated to a third party for statistical purposes only on condition that prior written permission has been given by the minister, and that the communication is not prohibited by the law and that no undertaking to the contrary has been given to the interested parties.

e) The absence of a national statistics board is of a piece with this conception. The statistical system is accountable not to an independant national body, but to its ministers, who are in turn accountable to Parliament.

f) Finally, the Rayner report, which will be examined later, continues through certain of its conclusions to dominate statistical management, and this has put the entire statistical system under government control.

And the outsider looking in returns constantly to the same question : how can a statistical service be truly independant whilst it is governmental rather than national, at the service of a government which dictates its resources, its programme and in fact everything except its methodology ?

Conclusion

Perhaps the most disconcerting thing about the organization of statistics in Britain is this notion of "Government Statistical Service". The idea that the statistical service is working essentially for the government is a constantly-recurring theme in publications, even those written by the head of the Government Statistical Service himself. The idea that the system should be at the service of Parliament, or even of the general public, is advanced only with the greatest diffidence. And in this country which gave the world parliamentary democracy, we find only the rarest hint that statistics is an instrument at the service of democracy.

5. Statistics and thatcherism

The electoral victory of the Conservative party under Mrs Margaret Thatcher in 1979 marked the beginning of a new economic policy which became known as thatcherism and which was mirrored by the period of reaganism which began two years later in the United States. The declared aim of this policy was to revive the spirit of enterprise and innovation, in particular by reducing fiscal pressure and the burden of government administration. The question also arose whether a less interventionist state would require fewer statistics. To find out, Sir Derek Rayner was appointed in 1980 to examine the possibilities of cutting costs and staff within the GSS. Sir Derek later became Lord Rayner.

5.1 The Rayner report

Sir Derek presented his report in December 1980 after consulting all the ministers concerned and their departments, but none else. The fundamental thesis of the report was that statistics exists for the Government, that the Government's statistical needs change over time, that the statistical service had expanded substantially and represented a considerable burden on the taxpayer, and that as a consequence the whole service should be examined with a mind to "value for money" - and this term returns again and again in the White Paper based on the Rayner report, presented to Parliament in April 1981.

The Rayner report concluded that it would be possible to cut the costs and the staff of the Government Statistical Service by 25% over four years - and that for certain departments the cuts could be as much as a third or even a half. The total staff employed would be cut from 9001 to 6451. This could be achieved by the following measures :

- eliminating certain surveys;
- extending to three years the interval between certain annual surveys (e.g. the employment census);
- simplifying questionnaires;
- reducing checks, and cutting to a minimum the validation procedures for external trade statistics;
- reducing sample size;
- counting the cost of services, and selling them rather than offering them without charge, even between government departments;
- systematic pursuit of greater productivity, in particular via general computerization;
- monitoring by the CSO of the usefulness of ministerial statistical work, and regular review of achievements in productivity;
- implementation of Community surveys only if they correspond to national requirements;
- in certain cases, detachment of statistics service management staff to ministry projects.

In his economy drive Sir Drek inevitably ran headlong into the problem of centralization. He admitted to having been captivated by the simplicity of a centralized system, but felt that the benefits were not sufficient to justify the resulting isolation and displacement of statisticians.

5.2 Consequences of the Rayner Report

Precise information on the results and consequences of the report is hard to come by. Some of them were as follows :

5.21 Immediate consequences

The immediate effect of implementing the Rayner report was comparable, as might be expected, to the arrival of a bull in a china shop. Cancelled or deferred surveys, "simplified" questionnaires, abandoned controls ... in short, an alarming deterioration in data quality.

5.22 Longer-term consequences

It is claimed that certain benefits appeared over the longer term :

- There was, naturally, an impressive incentive to rationalize, computerize, and introduce new methods capable of saving manpower.

- Staff were cut at executive level. Senior management staffing levels which, according to the report, should have been cut in accordance with the general trend, actually rose slightly.

- There were also some counter-reactions. In 1984 the Labour force survey, previously biennal, became annual.

- The authority of the CSO was strengthened. Having rejected the idea of centralization, the report imposed greater supervisory responsibilities on the head of the GSS.

5.23 The Government's service

Lastly, these measures further accentuated the purely government-oriented nature of the statistical service.

5.3 Counting the cost

Evaluating costs, and seeking economies and productivity gains have become an obsession throughout the statistical service. Every annual report devotes pages to the subject.

The government had prepared a ready reckoner showing the cost of an official at each grade working in London and elsewhere, with or without the additional cost of the office space occupied, other overheads, etc. Since 1985 the CSO published these figures for the entire Government Statistical Service. However, the use of a ready reckoner has been superseded by the use of actual staff costs in individual departments. Also the compilation of aggregated cost figures for the Government Statistical Service as a whole ceased in 1989, as it was agreed that departmental statistical programmes were best considered from a value for money point of view within the department's own programme. It had become clear that the figures compiled for the GSS would not be readily obtained on a satisfactorily comparable basis from all departments.

5.4 The independance of the GSS

But is the Government Statistical Service at the Government's orders ? Its resistance has been tested a number of times, and certain government measures have made news.

5.41 The Consumer Price Index (CPI)

One of the first steps by the new Conservative government in 1979 was a fundamental change in tax structure, with a reduction in direct taxation and an increase in indirect taxes. The inevitable result of this was a rise in prices. The government criticised the CPI, which took account of indirect taxes, but not of direct taxation, and gave instructions for an "Index of prices and taxation" to be constructed. The GSS obeyed the instructions, but demonstrated its independance by continuing to compute the CPI and publishing it simultaneously.

5.42 The unemployment figures

Unemployment has been a constant source of irritation to governments and to statisticians, not to mention the unemployed themselves. From October 1982 the basis of the monthly count of the unemployed changed from a count of numbers registering for work at Employment and Careers Offices to a count of people signing on as unemployed in order to receive unemployment-related benefits. This change was necessitated by the introduction of voluntary registration which followed an administrative review. It simplified the signing-on arrangements for the unemployed and at the same time significantly reduced administrative costs. As the monthly unemployment count is a by-product of an administrative system used for paying unemployment-related benefits, it is inevitably subject to changes in coverage whenever the rule and procedures for paying these benefits are modified. The statisticians have been able to overcome this difficulty by maintaining a time series of monthly unemployment figures based on a constant unemployment definition, consistent with current coverage and available back to 1971. These proceses unfortunately have been a continual source of controversy and misunderstanding and the statisticians unfairly implicated.

6. Maintaining integrity

Taken as a whole these measures - dwindling resources for statistics, amended definitions, and so on - inevitably led to disquiet. In February 1985 the Director of the CSO, Sir John Boreham, sent guidelines to GSS members on their role in maintaining public confidence in statistics. The note, "Integrity in the Government Statistical Service", spelled the situation out. In two consecutive paragraphs we read :

9 "we must try, by logic and diplomacy, to persuade colleagues and Ministers of the risk of losing public confidence they would run if they suppressed, delayed or misused our statistics, or selected figures to satisfy their particular social, economic or political viewpoint.

10 (when replying to Parliamentary Questions, we must) make sure that our Ministers are supplied with figures that are accurate and relevant and are not intended to mislead the questioner".

The note gives instructions on observing statistical confidentiality, on the choice of appropriate and transparent methods, on impartiality in alaysis and commentary, on the caveats to publish if definitions or methods are changed, on publishing data as soon as they become available, and on the clear distinction to be drawn between statistical information produced by the GSS and any comments added by others.

7. Criticism and reorganization

Concern was expressed outside the GSS too. In December 1989 the Royal Statistical Society, alerted by widespread criticism of official statistics and by the erosion of public confidence, set up an eight-member working party including Sir Claus Moser, who had been Director of the CSO from 1968 to 1978, to carry out an independent examination of official statistics, in particular into their adequacy, and to examine the question of scientific independance (i.e. integrity) and of maintaining public confidence. The report was published in July 1990 and bears the name of the working party's chairman, Professor Peter Moore. Although it is representative of professional statisticians, the report is in theory a private initiative.

At the same time, though, the government had become aware of the criticism of the quality of official statistics, and because of this in particular in 1989 it had an official report prepared by members of the GSS. This report bears the name of a Treasury official, Mr. Stephen Pickford, and is entitled "Government Economic Statistics - a scrutiny report".

Finally, in May 1990 the Chancellor of the Exchequer, Mr. John Major - later Prime Minister - announced a package of measures aimed at improving the quality of official statistics. This package is known as the Chancellor's initiative.

7.1 The Pickford report : Government Economic Statistics : A scrutiny report (1989)

This report was, as has already been noted, written by civil servants who are of course under fairly close supervision by their ministers. A critical attitude was hardly therefore to be expected. In any event, their remit was to review a single problem - the criticism of certain statistics - and, as can be seen from the report's sub-title, to propose measures to improve their quality. As regards the distinctive character of the British system, therefore, this report is of less interest. But it is nevertheless worth reviewing since, unlike the Moore report, it produced some spectacular results.

The problems reviewed by the committee concerned essentially the national accounts, and in particular the frequent revisions of aggregates and the discrepancies between the figures calculated according to the three measures. Now although the presence of substantial balancing figures in the national accounts may be a serious incovenience to users, it is not necessarily a sign of particular weakness; indeed, it may be more an indication of the statisticians' honesty, since they have preferred to disclose discrepancies rather than massage them away. The fact remains that it is a problem.

One of the more important measures adopted as a result of this report was the transfer of data collection from businesses from the Department of Trade and Industry (DTI) to the CSO (cf supra 1-6 c). The observer is tempted to see this move as the work of the Director Sir Jack Hibbert, himself a specialist in national accounts, and concerned to ensure that these vital surveys, which were under the threat of some dismembering of industrial policy, continued.

At the same time the Retail prices and Family budgets surveys were transferred to the CSO, (cf supra 1-6b). Finally the Balance of payments was handed over, though the bulk of the work on trade statistics is done by Customs and Excise.

Overall result : CSO staff increased from 150 to 1000 (1200 in 1992). This silent revolution was effectively a measure of centralization, in so far as CSO's share of total GSS staff increased from 3% to more than 20%.

7.2 The Moore report : Official Statistics : Counting with Confidence (July 1990)

The working party began its report by declaring that it had found "no evidence of a lack of integrity" in the GSS, but that the indirect results of the post-Rayner reforms had been harmful to the quality of statistics. The independance of the statistical system was poorly protected by statute and practice, and this was a serious problem. The report rejected the doctrine that official statistics were there for the government alone. And in a decentralized system, statisticians were attempting to serve two masters - the head of the GSS and their ministers - which was undesirable. The United Kingdom was virtually alone in having such a system. The report concluded with four proposals :

- Creation of a central statistical service with additional small statistical polity units in the major ministerial departments.

- Establishment of a methodological research unit and a joint research programme with universities, etc.

- Creation of an advisory "National Statistical Commission" reporting to Parliament, to support the objectivity, integrity, timeliness and scope of official statistics.

- Finally, passing of an Official Statistics Act, to safeguard the autonomy of official statistics, as already existed in most western countries.

The report had an icy reception from the Government. In reply to a parliamentary question, the Chancellor would go no further than to say that the government had learned with satisfaction that there was no lack of integrity in the GSS, but that it had no intention of changing the general organization of statistics in Britain as it had been maintained by previous governments, this last being a reference to the fact that labour governments had not attempted to centralize.

7.3 The Chancellor's initiative (May 1990)

In May 1990 the Chancellor or the Exchequer, Mr. John Major, announced a series of measures aimed at improving economic statistics in three strategic areas : services, business profits and the balance of payments. Although this initiative was claimed to follow in the wake of the Pickford report and the July 1989 reorganization of the CSO, it strikes a new note.

The Chancellor spoke of these measures as a fait accompli, not open to discussion. In addition, he reversed the direction of the Rayner report : sample sizes were increased, periodicity of surveys narrowed, surveys became compulsory. Cost-cutting was no longer an objective. For compelling statistical reasons, quarterly surveys had become necessary. A new, compulsory quarterly survey of industrial and commercial profits would be run by the CSO, to replace the tax authorities' (voluntary) survey. The Statistics of Trade Act, 1947, was amended to provide the enabling power.

7.4 Questions in Parliament

During the year 1990 Dr. Jeremy Bray, Member for Motherwell, asked the Chancellor a series of some 40 questions on the organization of statistics. One can only admire Dr. Bray's intimate knowledge of a wide range of statistical matters. One after another, his questions strike at the heart of the official line. But the government answers steadily, and its answers are highly illuminating. We learn, for example, that

- protection from political pressure by ministers is afforded by Sir John Boreham's 1985 "Integrity instructions";

- the measures announced by the Chancellor in May 1990 to improve the quality of statistics will restore public confidence in them;

- the government does not intend to change its policy on decentralization;

- although the GSS works exclusively for the government, the government itself consults the appropriate bodies; also, certain data are collected for the Community;

- the CSO has the right to correct publicly any wrong interpretation of its statistics;

- the use of compulsory surveys reduces costs and shares their burden out more equitably;

- a section of seven staff (of whom 4 statisticians) has been set up at the CSO with the task of evaluating the quality of statistics and researching into methodology;

- ministers are entitled to be advised of figures before they are published;

- the staff of the GSS fell from 6157 in 1978 to 4228 in 1989, i.e. by 31%, and not from 9001 to 4228, as had been affirmed by the Moore report (although the figure of 9001 quoted by Moore was taken from the Rayner report of 1980) (1). Specialist statistical staff in the GSS rose from 566 in 1978 to 611 in 1989 (after a trough of 531 in 1983).

7.5 Executive Agency

With effect from 19 November 1991 the CSO is established as an Executive Agency, and it operates under the terms of an "Agency Framework Document", to be reviewed every 3 years. What does the new statutory framework mean ?

The CSO remains a Government Department, and its staff remain civil servants. The notion of a Government Statistical Service is not touched upon, the Chancelor of the Exchequer, says the document, is the central customer for the economic statistics of the CSO and, as such, determines the requirements for economic statistics which the CSO is to fulfil.

The CSO enjoys some financial autonomy and derives income from sales of statistical information, publications and other services; this income which in 1991-92 represented 3% of annual expenses, is supposed to increase in the future, somewhat along the Danish example. Like the Rayner report, the document insists on minimising costs and reducing response burdens on firms - "value for money".

(1) Inconsistencies of this magnitude are somewhat surprising. The Moore report was discredited for quoting incorrect figures for 1979, and yet the figures of posts in the GSS were taken from the Rayner report, itself drafted in consultation with the ministries concerned.

What is really new is the status of the Director. His appointment is limited in time and he may be drawn from outside the civil service. At the end of 1991 the Government advertised the vacancy of the post in the press, without even requiring a university degree or an experience in statistics. The new Director was chosen not only from outside the GSS, but even from outside the United Kingdom. The responsibilities of the Director are clearly outlined. They include : coordinating statistical policy accross Government and setting common standards for use by the GSS, responsibility for personnel management and motivation of staff, establishing annual training and development plans, ensuring efficient organization of work, and finally two delicate functions :

- maintaining integrity and public confidence in Government statistics;

- improving the quality of statistics, above all of national accounts and the balance of payments. For the operation of macro-economic policy the Treasury needs statistics on a regular basis that are comprehensive in coverage, accurate, timely, coherent, not subject to large revisions of significant aggregates, and consistent with other information.

The CSO is asked to establish a strategic 3-years plan, and an operational annual plan which will be monitored by annual reports addressed to ministers and, as far as necessary, to Parliament.

Ministers will ensure the freedom of the Director to maintain the integrity of CSO output. The Director, as the Government's chief adviser on statistics has the right of access to the Prime Minister on matters concerning the integrity and validity of Government statistics.

The Director may appoint a consultative board whose, responsibilty it will be to inform him on clients and suppliers of data opinions on the work of the CSO. His administrative powers are also increased.

In *conclusion* the reform is directed toward increasing efficiency, but without altering the general organization of British statistics as regards centralization and relations with Government.

8. Constitutional aspects

The purpose of a general law on statistics is to establish the official statistical service, to define its tasks, determine the degree of centralization, to provide a legal framework for compulsory surveys and for statistical confidentiality and, if necessary, to define the rights and duties of staff. There is no such law in the United Kingdom. The only instrument of general application is the GSS Code of Practice on the handling of data obtained from statistical inquiries, which essentially sets out the rules for statistical confidentiality applying throughout the civil service. Formally the code is not a law, neither is it a CSO instruction : it takes the form of a Government statement submitted to Parliament in June 1984 by the Prime Minister. It is however complemented by a Code of Practice on Confidential Data, which bears the imprint of the CSO.

Although there is no general law, there are a number of specific acts of Parliament, of which the most significant are the 1920 Census Act, the Population Statistics Act (1938, amended 1960), the Statistics of Trade Act 1947, the Agricultural Statistics Act 1979.

8.1 Obligation to respond

Any compulsion must be enshrined in law, and any survey must state specifically whether it is compulsory or not. Attempts are now being made to extend the range of compulsory surveys (see 7.3. the Chancellor's initiative); as in other countries, the compulsion is backed up by penalties. However, some laws distinguish between failing to reply, punishable by a fine, and supplying false information, which is punishable by up to three months' imprisonment on summary conviction, or up to two years if the case is taken to the crown court, plus a fine. This applies to trade, industry and service businesses as well as agriculture. The population Census Act makes provisions only for a fine. It nevertheless appears that there have been hardly any prison sentences, and even fines are imposed sparingly. All sample surveys of households and individuals are voluntary.

8.2 Statistical confidentiality

Breach of statistical confidentiality can result in a prison sentence, a fine, or both. As in the case of failure to respond, the maximum term of imprisonment is three months in magistrates court proceedings, or two years in crown court.

It would appear that these penalties only apply in the case of "statutory" (i.e. compulsory) surveys, and not to non-compulsory surveys. If this is true, it would mean a gap in the rules of confidentiality.

However, the Code of Practice sets out the ethical rules for all surveys, both compulsory and voluntary. They are :

1. Every service must take all necessary *precautions* to ensure that confidentiality is maintained during the collection, storage, analysis and transfer of data.

2. Individually-identifiable data should as a rule not be published without the *consent* of the interested party.

3. Information about identifiable statistical units is not used for other than statistical purposes, or transferred to another department or outside organization unless :

   - this is provided by law and no undertakings has been given to the contrary,
   - or, in voluntary surveys, the respondent was informed when the information was collected, or has subsequently given consent in writing.

4. Unless it is prohibited by the law or unless an undertaking to the contrary has already been given to any interested party, anonymized individual data may be notified to other departments or to bona fide researchers outside the government's service.

5. When data on identifiable statistical units is likely to be of interest to future historians or researchers, a department may conserve the data in archives designated for that purpose.

The reader will have noted that the Code of Practice refers to an identifiable statistical unit, without distinguishing between businesses and persons : the same rules therefore apply to both.

8.3 The protection of data

The 1984 Data Protection Act applies to the whole of the United Kingdom. The Act covers only automatically processed information relating to living (legal) individuals. Databanks which do not identify living individuals do not need to be registered. It includes a number of interesting features, one of which is that its implementation has caused no concern amongst British statisticians - unlike the situation in many other countries.

- In Britain the law dates only from 1984; in some countries they date from the late 1970s. This allowed the CSO to have some influence on its drafting.

- The full title of the act is "An act to regulate the use of automatically processed information on individuals and the provision of services in respect of such information". In other words, the law's purpose is to protect data, not to protect the individual's privacy. This means that, in contrast to the situation elsewhere, the Data Protection Registrar has no control over questions asked, e.g. in the census. The British census includes a question on ethnic origin.

- Before any work is begun on a data bank, it must first be registered with the Data Protection Registrar. Any dispute with the Registrar may be resolved by a special court.

- Finally, the law deals separately with the processing of individual data for historical, statistical or research purposes. In particular, there is no requirement to state all the statistical uses to which the data may be put, and the data may be kept for an unlimited period.

8.4 The Director

It was seen earlier (5.4) that the GSS can demonstrate its independence.

Up to 1991 the Director of the CSO was not appointed for a limited period and he retired at 60. Since the CSO become an executive agency, the Director is appointed for a limited time. Further more, as in Belgium, the CSO and its Director are not created by law, but by a decision of government, and the government could quite simply abolish the post in order to rid itself of a troublesome director. This extreme measure would undoubtedly set off a political uproar, and a crisis of confidence.

8.5 Transposition of Community legislation

From official statements it appears that such transposition is effected virtually automatically, as in France, without any parliamentary procedure.

9. Conclusions

The British statistical system leaves the observer perplexed. An analysis of its strengths and weaknesses must nevertheless be attempted.

9.1 The mission of the GSS

In theory at least, the system's principal weakness is its governmental, rather than national, vocation. The result is a conception of statistical information which is directed exclusively at meeting the day-to-day needs of government. The idea of statistics as a general source of information available to the nation and to the forces of democracy appears rarely in official views.

On the other hand this narrow vision is somewhat offset by the system's decentralization, which results in a wealth of detailed information.

9.2 Decentralization

9.21 The extremes of decentralization are only practicable if every member of the system constantly demonstrates both discipline and a team spirit. The British example could probably not be naturalized anywhere else.

9.22 The attractions of centralization are acknowledged in sources as disparate as the Rayner report and the Moore report. The government has resisted those attractions, although the 1989 reorganization of the CSO introduced some measures of centralization.

9.23 Decentralization has increased the temptation to political intervention in statistics. The CSO reacted in 1985, and appears to have successfully resisted the attack on its integrity. Some disquiet nevertheless remains.

9.3 The obsession with economies and productivity

The government's policy of lightening the mechanisms of state is reflected in every report by the statistical services, which provides figures of the cost of services, the savings effected, and the year's achievements in productivity. This is an interesting idea, worth adopting across Europe.

9.4 The final enigma

A statistical service naturally stands or falls by its results. The proof of the pudding is in the eating. Are British statistics any less good, any less complete or delivered any later than those of other countries ? In the present state of our information it is not yet possible to answer this fundamental question, which needs further investigation.

If figures on employment are correct, it would seem that - despite decentralization - the British statistical services get by with very few staff indeed : 5000, compared with almost 10000 in France, 8000 in Italy, and so on. There is no secret there, the British will tell you : the others are simply overstaffed.

II. PART

THE ORGANIZATION OF STATISTICS IN THE 12 MEMBER STATES OF THE EUROPEAN COMMUNITY : A COMPARATIVE STUDY

Statisticians of the world, Unite !

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B. RESOURCES AND ORGANIZATION

C. CONCLUSION

0. HISTORY AND STATUTORY ORIGINS

0.11 The origin of the NSIs

It is generally agreed that statistics is almost as old as history. Censuses were held in Mesopotamia, in China, in ancient Egypt; Christ was born in the middle of a census of the population. But the organized manner of collecting data systematically, which we now know as the national statistical institutes (NSIs), appeared only in the nineteenth century, mostly during the first half of the century. France can be said to have started the process, in 1800; Luxembourg completed it in 1900.

In several Member States the establishment of statistics followed immediately upon the achievement of independence. This was the case in Belgium (1830), Greece (1828-33) and Ireland (1922); in Denmark, more significantly, the establishment of the National Statistical Bureau in 1850 followed the introduction of democracy in 1849.

These bodies evolved as the nineteenth century progressed, with changes in their names, their supervising ministries, and their duties. In the early days some were no more than statistical committees, comprising representatives of a few departments, for statistics was regarded as a mere administrative task. In those days the aim was to bring together the statistics which were essentially a by-product of the departments' principal tasks. Even censuses of the population, the most ancient of statistical operations, were originally semi-administrative in nature, designed and implemented in order to bring up to date the register of the population and to share out taxes between towns, or even to establish how many parliamentary representatives or municipal councillors should be elected. Administrative statistics are difficult to compare, because differing definitions, classifications and so on are used. It was in Belgium, in 1841, that Quételet founded the first Central Statistical Commission, the forerunner of the High Councils on Statistics we find nowadays in virtually every country. In 1846 it was again Quételet who launched the first ever combined census of population, industry and agriculture, celebrated as a model of its kind.

Historic origin and present statistics law

Country	NSI	Compliance	Statistics law and confidentiality
B	1830	1936	1962 mod. 1985
DK	1850	1966/1978	1966 mod 1971
D	1805 1872	(1920 ?) 1953	1987 mod. 1990
GR	(1910)	1956	1956 mod. 1988
E	1856	1945	1989
F	1800	1951	1946, 1951 mod.1984
IR	1922	1926	1926 mod. 1946
I	(1861)	1926	1989
L	1900	1945	1962 mod. 1967 and 1971
NL	1826	1936	1899 / 1936
P	1857	1935	1989
UK	1832	1920/1938	1920, 38 mod. 60, 47, 79, 91

The emancipation of statistics took place on three fronts :

- the development of a system of purely statistical surveys to exist side-by-side with administrative statistics;
- in most countries, the gradual centralization of statistics in a national institute;
- the definition of a statutory basis for statistical operations, in the form of a Law on Statistics.

International statistical cooperation

But one problem remained. Very early in the day it had been noted that if statistics were to be of real use, they had to be comparable. Again, it was Quételet who took the step : in 1853 he brought together in Brussels the first international congress of statisticians. This was followed by other meetings of representatives of the NSIs, culminating in 1885 in the establishment of the International Statistical Institute. Quételet's aims remained unattained, however : the delegates lacked the necessary authority to impose agreed common methods in their own countries.

At the close of the first World War the torch was taken up by the League of Nations, and passed on after 1945

to the United Nations. To show for their stewardship we have the convention on economic statistics, concluded in Geneva on 14 December 1928, and amended by a protocol signed in Paris on 4 December 1948, both of which were ratified by a large number of states. Alas, these solemn engagements resulted in remarkably few effects.

A landmark was passed with the establishment in 1953 of the Statistical Service of the ECSC High Authority, later to become the Statistical Office of the European Communities : for the first time an international treaty permitted binding measures to be imposed, and allowed genuine harmonization of statistics and synchronization of certain surveys.

0.12 Origins of modern statistical organization

Nowadays we regard statistical secrecy and the obligation to reply as the twin pillars of statistical organization. Nevertheless, although the NSIs date back to the nineteenth century, the legal principles of confidentiality and compliance were introduced relatively recently : between the wars, or even after 1945. There were isolated cases earlier in the twentieth century, and even in the nineteenth, of surveys in which non-compliance was punishable by a fine, but the fact remains that confidentiality and compliance, as organizational principles, appeared much later. Provision was made for both in German law in the 1920s, in Ireland and Italy in 1926, a little later in France. In Portugal it came with the law of 1935 establishing the NSI (although reference is made to confidentiality in a law dated 23 May 1911); in Belgium and the Netherlands, in 1936. In the United Kingdom the question is dealt with in various laws, of which the first was the Census Act of 1922, followed by the Population Statistics Act (1938) and others. Post-war, statistical confidentiality is mentioned for the first time in the Luxembourg statistical law of 1945; in Spain and Greece in 1956. In Denmark, compliance reached the statute book in 1966; confidentiality is not mentioned at all in the Law on Statistics, but in the 1978 law on registers.

0.13 Ministerial supervision - change over time

As a public service, statistics is administratively under the wing of a supervising ministry. With time, responsibility has been shifted from one ministry to another. In the early days, before ministries of economic affairs had been invented, statistics frequently answered to the Minister of the Interior (Belgium, France, Netherlands, Luxembourg) or directly to the Prime Minister (Greece, Spain, France, Ireland, Luxembourg) or even the Minister of Labour. In most countries it is now the responsibility of the Minister of Economic Affairs or of a Ministry with economic or financial responsibilities (Treasury in the United Kingdom; Ministry of Planning in Portugal). Only in Germany has the tide run the other way : before the war statistics was in the portfolio of the Economic Affairs minister; now it is with the Interior ministry.

02. Statutory foundations for statistics

A. *National law*

0.20 Constitutional provisions

In at least three countries - Germany, Portugal and Spain - the constitution itself contains explict provisions governing the organization of statistics. They are of *two types.*

In a federal state such as Germany, or a proto-federal state such as Spain, the constitution or founding law defines the respective statistical competences of the central and regional governments - Länder and Autonomous Communities in the two cases - or sets out which statistics are of national interest.

The more recent constitutions - Portugal and Spain - also contain provisions relating to the protection of privacy, which in other countries are at best found in conventional statute law. In the case of Portugal, for example, Article 35 of the constitution prohibits the computer processing of data on individuals' philosophical or political beliefs, membership of political parties or trade unions, religious denomination or private life, and goes as far as to prohibit the attribution of a unique national identity number to the nation's citizens. An analogous situation was created in Germany by the December 1983 judgement of the constitutional court, following complaints about the population census. This judgement introduced the concept of informational self-determination.

0.21 Fundamental law on statistics

In most Member States the general organization of statistics is the subject of a *Law on Statistics*, which establishes the National Statistical Institute, defining its mission and decision-making procedures, setting out the rules for compliance and statistical confidentiality, etc. The following laws on statistics are currently in force :

Belgium	Law of 1 August 1985 amending by the law of 4 July 1962, on Public Statistics
Denmark	Law No 196 of 8 June 1966, amended 17 December 1971, establishing Danmarks Statistik
Germany	Law of 22 January 1987, amended 17 December 1990, on Federal Statistics
Greece	Decree-Law No 3627 of 1956, amended by Law No 1819 of 1988
Spain	Law No 12 of 9 May 1989 on the state statistical service
France	Finance Law, 1946 (establishing INSEE); law of 7 June 1951 on statistical compliance, coordination and confidentiality as amended
Ireland	Statistics Act, 1926, amended by the Statistics (Amendment) Act, 1946
Italy	Decree-Law No 322 of 6 September 1989 on the national statistical system and the reorganization of ISTAT, by virtue of Article 24 of Law No 400 of 23 August 1983
Luxembourg	Law of 9 July 1962 (amended 1967 and 1971) establishing STATEC
Netherlands	Royal Decree of 9 January 1899 establishing the CBS Law of 28 December 1936 establishing measures to ensure the collection of accurate economic statistics
Portugal	Law No 6 of 15 April 1989 on the national statistical service Decree-Law No 280 of 23 August 1989 approving the constitution of the INE
United Kingdom	No founding law Census Act 1920; Population Statistics Act 1938, amended 1960; Statistics of Trade Act 1947; Agricultural Statistics Act 1979; Census (Confidentiality) Act 1991, etc.

The *United Kingdom* has no general law on statistics, but specific laws on different categories of statistics. Into the bargain, English law leaves to the Central Statistical Office the task of defining a Code for surveys. Denmark followed this course for many years, and the Danish Law on Statistics dates from only 1966. Even in Britain, there are now voices to be heard advocating a general law on statistics. The same tide is flowing at Community level : the NSIs would like to see Eurostat's status more clearly defined.

0.211 What does a law on statistics contain ?

Three components can be distinguished in a law on statistics : first, administrative provisions, secondly the mission of the NSI, and finally, the rules for effecting statistical inquiries. The Belgian law, and the various specific British laws, deal with only the last of these, the remainder being deemed part of the internal organization of government. Those two excepted, we find that the laws on statistics contain the following categories of provisions :

- Establishment of the NSI, and its formal name;
- Designation of supervising ministry
- Title of the NSI's head, and its various managing bodies;
- Mission of the NSI;
- Statement on the exercise of statistical authority;
- Centralization, decentralization and coordination;
- High Council on Statistics and other coordinating bodies;
- Compliance;
- Confidentiality

and in some cases, confirmation of the scientific independence of statistics.

We shall return to each of these in turn.

0.212 Broad principles or detailed rules ?

It remains to be determined whether the law on statistics is to go no further than outlining a handful of general organizational principles, leaving the matter of their interpretation to either government regulations or the discretion of the NSI, or whether, contrariwise, it should provide a detailed set of rules.

In a centralized system where the statistical institute is trusted and there are few problems of demarcation, the law can be laconic in the extreme. This is the case in the Netherlands, where the total length of the two laws barely amounts to six pages, a masterpiece of concise draftsmanship. It is the case, too, in France and Luxembourg. The mission of the Netherlands statistical service, and the powers of its Director-General, are summed up in a single sentence : "Within the limits of available financial resources, the CBS shall collect, analyse and publish such statistical data as its Director-General may see fit for practical and scientific purposes."

In countries of a more federal structure, on the other hand, where there are delicate issues of demarcation between the federal and regional statistical authorities, the law on statistics tends to be long and complex. In Germany the law outlines the general mission of the Bundesamt, and then goes on to list ten tasks specific

to it. In Spain, the law lists 22 tasks specific to the INE; in full the law runs to 54 Articles covering 20 pages of print.

Recent laws on statistics tend to take account of the need for coordination between departments, and of the need for access to administrative data and for the protection of privacy. As a result they are more complex than the classic laws.

It should be noted that in federal and proto-federal states the regional authorities may also enact laws on statistics. A number of German Länder and Spanish Autonomous Communities have done so.

0.22 Specific statistical laws

These are the laws enacting specific statistical inquiries. *Three types* of such laws may be distinguished.

0.221 Sectoral laws

In the *United Kingdom*, sectoral statistical laws have been enacted such as the Census Act of 1922, the Population Statistics Act of 1938 (amended in 1960), the Statistics of Trade Act of 1947, the Agricultural Statistics Act of 1978, etc. They apply to a fairly broad group of surveys, for which they set out the ways and means, the population to be surveyed, the variables to be reported, and the questions of compliance and confidentiality. Taken as a whole, they may be seen in some respects as filling the role of the basic law on statistics.

0.222 Survey-by-survey laws : the principle of lawful authority

In *Germany* the situation is different. There, the general law on statistics lays down that, as a rule, any new inquiry must be legitimized by a law. This is the principle of lawful authority. The same principle was chosen by Spain in its Law on Statistics of 1989. Germany currently has some 120 laws and regulations relating to individual statistical inquiries.

0.223 Sui generis cases

In a few countries we find laws ordaining surveys of political significance. This is the case, for example, with Luxembourg's monthly survey for the retail price index; another example is found in the Economic Union Convention between Belgium and Luxembourg, which provides for a simultaneous census of the population of both countries once every ten years.

0.23 Other laws relating to statistics

The laws reviewed in the preceding paragraphs govern the activities of public statistics. However, there are also laws which, whilst their principal object lies outside the sphere of statistics, also affect it. These include in particular laws on the *protection of privacy* in data processing, laws governing the organization of *registers* of individuals and businesses, and laws aimed at *reducing bureaucracy*. Country by country, they comprise :

Belgium

Law of 8 April 1983 establishing a Central register of individual persons Law of 6 July 1987 ... establishing a Committee to examine the simplification of administrative formalities required of small and medium sized businesses and the self-employed.

Denmark

Law of 1968 on the Central register of individual persons Law of 1975 (amended 1990) on the Central business register Law of 1977 on the Buildings and office premises register.

Germany

Law of 27 January 1977 on the protection of data Law of 20 December 1990 on the development of data processing and data protection

Greece

...

Spain

Law of 1985 on the Electoral register

France

Law No 17/78 of 6 January 1978 on Data processing, data protection and individual liberties

Ireland

Data Protection Act, 1988

Italy

...

Luxembourg

Law of 31 March 1979 on the use of personal data in data processing Law of 31 March 1979 on individual identity numbers.

Netherlands

Law of 28 December 1988 on Data protection.

Portugal

Law No 10 of ... 1991 on the Protection of personal data in data processing

United Kingdom

Data Protection Act, 1984.

0.24 Government regulations

Finally, the executive may intervene in the exercise of statistical authority.

0.241 Regulations ordering statistical work

In two Member States any new survey must be approved by the Government - in *Belgium*, in the form of a Royal Decree, in *Ireland* by an order of the Prime Minister.

In *three others* it is the annual (or multi-annual) statistical programme which, after discussion by a higher consultative body, must be approved - in France, by a decree published in the Journal Officiel de la République Française, in Italy by Presidential Decree, and in Spain by Royal Decree.

In Germany an exception to the principle of lawful authority permits surveys of the economy or the environment to be ordered by regulation - under certain conditions.

0.242 Regulations governing the organization of statistics

The executive can also intervene in the organization of statistics. We have already seen that in Belgium and the United Kingdom the statistical institute was established not by a law, but by a Government decision

Government can also intervene as a necessary stage in the approval of regulations drawn up by the NSI, such as its organizational structure, the relations between head office and statistical offices in ministries, municipalities, etc. Government may, as in Ireland or the Netherlands, decide that the statistical office shall open an office elsewhere in the country than the capital.

0.25 Internal regulations

Every government department has a wealth of internal instructions governing various aspects of the organization of work : working hours and conditions, rules for leave, internal accounting, publications distribution policy, in-house working parties, and many others.

Certain such rules are so important that they may be seen as an exegesis of the legal provisions organizing statistics. This is particularly the case for rules on statistical confidentiality and coordination between different statistical departments.

In *Denmark* the Law on statistics has nothing to say on confidentiality : it is a Danmarks Statistik regulation which governs statistical confidentiality and data protection. In the *United Kingdom* the only generally-applicable rules on confidentiality are to be found in the GSS Code of Practice (The Government Statistical Service Code of Practice on the handling of data obtained from statistical inquiries). This document, which takes the form of a government statement submitted to Parliament by the Prime Minister, essentially sets out the rules for statistical confidentiality applying throughout the Civil Service.

In Italy the implementation of SISTAN, the national statistical system created by the new law on statistics, gives rise to directives by the Committee for the Guidance and Coordination of Statistical Data, which set out the organization of statistics at all the levels concerned - ministries and government agencies, chambers of commerce, provinces, municipalities.

B. *The legal bases of Community statistics*

This review would be incomplete without a reference to legislation on European Community statistics, since this forms an integral part of the statistical legislation of each of the twelve Member States. There is just a problem of transposition into national law, which we shall come to in Chapter 8. Here, however, we must draw attention to two differences between Community legislation and domestic law.

In the Treaties establishing the European Communities, statistical inquiries are portrayed not as a specific function - as is the case in national systems - but as a specific aspect of the general right to collect the data necessary for the accomplishment of the Communities' missions. European statistics, therefore, is much more closely linked to the requirements of policy, and its mission correspondingly less comprehensive. European statistics still has to win its independence from mainstream European administration. That is also why

special statistical legislation is dealt with here before general statistical legislation.

0.26 The legal basis : Article 189 of the Treaty of Rome

Article 189 reads as follows : "In order to carry out their task the Council and the Commission shall, in accordance with the provisions of this Treaty, make regulations, issue directives, take decisions, make recommendations or deliver opinions.

A regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States.

A directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods.

A decision shall be binding in its entirety upon those to whom it is addressed.

Recommendations and opinions shall have no binding force."

0.27 Community statistical legislation

0.271 Special Community legislation

If the Commission wishes to encourage Member States to effect an inquiry, Article 189 means that any instrument must, if it is to be binding, assume the form of a regulation, a directive, or a decision. It has happened that a major survey has been undertaken on a purely voluntary basis - the family budgets survey of 1963/64, for example - but that was a long time ago in the days of the Community of Six. Nowadays each new survey must be legitimized by what might as well be termed a Community statistical law. Eurostat keeps up to date the register of Community law affecting statistics.

0.272 General Community statistical legislation

The need has been felt recently for a more solid foundation for European statistics. The founding law itself, which will one day set out the mission and statutes of Eurostat, is still only at the discussion stage. But a number of significant measures governing the organization of statistics - regulations, directives and decisions - already exist. They include :

- The Regulation of 11 June 1990 on statistical confidentiality - or, to be precise, on the transmission to Eurostat of data subject to statistical confidentiality;
- a trio of Council decisions establishing consultative bodies advising Eurostat :
  - the Decision of 19 June 1990 establishing the Statistical Programme Committee;
  - Decision 115 of 1992 establishing the Committee on Monetary and financial statistics and the balance of payments;
  - Decision 116 of 1992, establishing the European Consultative Committee on economic and social data, whose role is analogous to that of the national high councils on statistics;
- Finally, there is the Directive of 13 February 1989 on the harmonization of methods for establishing GNP which, although it aims at only one specific set of data, will have wide-ranging repercussions since the harmonization of GNP will require a review of the entire statistical system of each Member State.

1. THE TWELVE NATIONAL STATISTICAL INSTITUTES

1.1 The twelve NSIs

1.11 The NSIs

Country	ACRONYM	AND FULL NAME
Belgium	INS	Institut National de Statistique
Germany	-	Statistisches Bundesamt
Denmark	DS	Danmarks Statistik
Greece	GNSO	Greek National Statistical Office
Spain	INE	Instituto Nacional de Estadística
France	INSEE	Institut National de la Statistique et des Études Économiques
Ireland	CSO	Central Statistical Office
Italy	ISTAT	Istituto Nazionale di Statistica
	SISTAN	Sistema Statistica Nazionale
Luxembourg	STATEC	Service Central de la Statistique et des Études Économiques
Netherlands	CBS	Centraal Bureau voor de Statistiek
Portugal	INE	Instituto Nacional de Estatistica
United Kingdom	CSO	Central Statistical Office
	GSS	Government Statistical Service

1.12 Three terminological distinctions

As regards the mission of the NSIs, two concepts can be distinguished. The first is that of the NSI, with responsibility solely for the production and publication of statistics; the other is the INSEE, with responsibility for producing statistics and using them for research purposes.

A second distinction concerns the user of the statistics. Here the first concept is that of the *National Institute*, established to serve the nation as a whole; the second, narrower definition, found in the United Kingdom only, is that of the *Government Statistical Service*, whose clientele is in principle restricted to government.

Lastly, in federal and proto-federal states, a distinction must be drawn between the federal or national statistical office, and the statistical departments of the German Länder and the Spanish Autonomous Communities

1.2 The management of the NSIs

Each NSI is under the leadership of one person who is effectively the captain of the ship. The job may be the same, but the holder's title, method of appointment, tenure and powers vary from country to country.

1.21 Title

The head of the statistical office bears one of a number of titles :

- Director (Ireland, Luxembourg, United Kingdom)
- Director-General (Belgium, France, Netherlands)
- President (Germany, Spain, Italy, Portugal)
- Secretary-General (Greece)
- National Statistician (Denmark)

In Germany the statistical offices of the 16 Länder are also each under the leadership of a president. In France each ministry statistical service (SSM) and each regional directorate is headed by a director. In the highly decentralized British system, a number of statistical offices are likewise headed by a director, but the titles of Head of the Government Statistical Service, and head of the statistical profession (i.e. in government service) are held by the director of the CSO alone.

1.22 Double-headed services

In certain Member States the management is shared by two people. One, the president, is in theory responsible for external relations, both national and international; the second, the Director-General, is responsible for internal coordination. This was the case in *Spain* from 1977 to 1982, when a single head system was again adopted. In *Greece*, the Secretary-General, who is a government nominee, is responsible for relations with the political authorities.

Italy has always had both President and Director-General. In the past the President's role has been fairly discreet, but since the Law on Statistics of 1989 he has become more prominent and is now the undisputed head of both ISTAT and SISTAN.

1.23 Governing bodies

A civil service department is not run by a simple system of its head issuing directives. Some regular consultation between its top managers is taken for granted. Certain statistical laws have legalized such management committees.

In *Spain* the President is aided by a management committee comprising the three Directors-General and the director of the President's technical office.

Italy now has two such committees : the ISTAT Board, chaired by the President and with the Director-General as Secretary, and the Management Committee, chaired by the Director-General. The latter is a collegiate body, and although it is not mentioned in the Law on Statistics, its authority comes from its creation under the terms of the regulation on ISTAT's internal organization.

In *Portugal*, collegiate management is exercised by the President and his two deputy-presidents; there is also a

board comprising three senior managers and two to four outside personalities.

1.24 Recruitment

In all twelve Member States the head of the statistical service is appointed by the government of the day. In theory the government is free to choose whoever it wants, applying criteria of professional competence, management skills or political persuasion. But tradition also has a part to play.

In *France*, priority is given to professional experience acquired within INSEE. In the *Netherlands* the choice generally goes to an academic; in *Italy* the president must be a university professor, whilst the Director-General can rise through the ranks or even be brought in from outside (as was the case in 1992). In *Germany* the president will normally be drawn from the top flight of administrators from the Ministry of the Interior, which is the Statistisches Bundesamt's parent ministry, although presidents have emerged from the ranks of the Bundesamt.

In the *United Kingdom* the government caused a furore in 1992 by appointing the new director of the CSO from outside not only the British statistical profession, but from outside Britain altogether : Mr McLennan had previously been deputy-director of the Australian Statistical Office.

1.25 Constitutional role and powers

As the department's administrative head, the head of an NSI generally enjoys extensive powers which are limited only by the existence of the committees he is required to consult : his management board, the high council on statistics, and so on.

In the *Netherlands*, the Royal Decree of 1899 offers a succinct illustration of the considerable powers of a director-general of statistics : "the CBS shall collect, analyse and publish such statistical data as its Director-General may see fit for practical and scientific purposes."

As to tenure, Directors-General have by tradition been established civil servants, and thus appointed for life. That made them immovable, or moveable only as far as another job within the civil service which, by its implicit hint of government interference in the scientific activity of the NSI, was likely to have political consequences. A number of recent laws, in Italy, Portugal, Greece and the United Kingdom, have provided for the appointment of the head to be for a fixed period. This is a disturbing trend, for it cannot fail to diminish the independence of a head who, to ensure his reappointment, must keep in the good books of the government (or, in the case of Greece where the incumbent is elected, the staff).

1.3 Administrative supervision and scientific independence

1.30 Constitutional position of the NSI

It is sometimes said that an NSI is just another directorate-general in just another ministry. Not true, for three reasons at least :

(a) Attached though they may be to a ministry, most NSIs are governed by the terms of a founding law of their own. That is not true for most other ministerial departments, but puts the NSI on much the same footing as a department such as the Revenue or Excise, which also have their own laws.

(b) The head of a ministry is the minister; his top officials are no more than his representatives. In the NSI, on the other hand, the minister is not the boss. The director runs the NSI as its director, and not as the agent of a minister.

(c) Lastly, statistics enjoys the operational independence conferred on it by the concept of statistical confidentiality : the NSI can (and should) refuse to supply individual data to its minister. Furthermore, statistics takes no part in day-to-day administrative activities, but implements a programme of work which goes beyond the needs of the ministry and even of the government.

The fact nevertheless remains that statistics is closely dependent on government for its resources in both personnel and budget. In some countries, however, the independence of the statistical office goes further. With a view to stimulating its initiative (and stretching its budget) the NSI has been given some measure of financial independence, permitting it to use the funds generated by the sale of of its publications and services, the funds received from European Community sources, etc. In the more conventional regime still in operation in most countries, any funds thus received disappear into the coffers of the government. This experiment has been attempted in a few countries : Denmark, Spain, the United Kingdom and, most interestingly, Portugal, where Article 14 of the law on statistics states unequivocally : "The INE is a public institution with its own legal personality, administrative and financial autonomy, and assets." We shall return to this question in Chapter 6.

1.31 Supervising ministry

Although statistics is deemed to be independent as regards the organization of its work, it is administratively under the wing of a minister whose agreement is necessary before any move is made involving resources (budget, appointments, promotions, premises, equipment, etc.). Sometimes, too, the programme of work will require the minister's approval.

Three ministries are candidates for this supervisory function.

In theory, statistics should be the responsibility of the Prime Minister, since the mission of the NSI is one of general documentation. This is the solution adopted in *Ireland* and *Italy*, and formerly in Greece.

Most frequently, the NSI is attached to the ministry which has greatest need of its services, i.e. the ministry of economic affairs. This is the case in France, the Benelux trio, Spain, and Greece. In Portugal it is the minister for the national plan and for development.

Germany, on the other hand, has adopted the diametrically opposite view, and placed the Bundesamt under the wing of the ministry least likely to be directly in need of its services : the Ministry of the Interior. This is the best way of preserving statistics' status as a "common services" department, offering the possibility of direct links with every ministry. But the Bundesamt's dependence on the Interior Ministry results also from the fact that the President of the Bundesamt is traditionally given responsibility for supervising elections to the Bundestag (and to the European Parliament).

1.32 Auditing

In conventional statistics systems which do not enjoy financial independence, auditing is done in exactly the same way as in any other department. In cases where the NSI enjoys some degree of financial independence, more recent laws may establish different rules for financial auditing.

In *Denmark*, it is for the High Council on Statistics to approve major financial operations, in particular the budget. Italy now has a committee of three auditors who check that the books have been properly kept, and also check results against aims.

1.33 Scientific Independence

It is generally agreed that, regardless of its administrative dependence on a minister who is in effect its hierarchical head, the NSI enjoys freedom of action as regards statistical method. This may go without saying, but it is perhaps better said for all that. Certain more recent laws have enshrined that independence.

The German law states roundly that the establishing of Federal statistics is based upon the principles of impartiaity, objectivity and scientific neutrality. The laws of Spain and Portugal speak of "technical" independence : Article 30 of the Spanish law states : *"For the exercise of its technical competences, the INE shall enjoy the necessary functional capacity to ensure its operational impartiality."* Danish law states that "Danmarks Statistik is an independent institution supervised by the High Council on Statistics."

The integrity of *British statistics* has not always been a matter of undisputed fact, and the new "Executive Agency" status puts the responsibility on the Director as guarantor of the integrity of his statistics.

But it is the *Italian* Law on Statistics of 1989 which goes farthest, establishing a nine-member committee (including six academics), the Statistical Information Guarantee Committee, with a role *as watchdog over the impartiality and completeness of statistical data, the observance of statistical confidentiality, the quality of statistical methods, and the conformity of surveys to the requirements of international and Community organizations.*

Legal references to scientific independence and administrative autonomy

COUN-TRY	LAW	TEXT
B	-	-
DK	1966 Law Section 2	Danmarks Statistik is an independent institution supervised by the Board .
D	Par 2 Par. 1er	The Stat Bundesamt is an independent federal administration within the Ministry of the Interior Establishing of federal statistics is based upon the principles of impartiality objectivity and scientific neutrality
GR	-	-

COUN-TRY	LAW	TEXT
E	Art. 25 Art. 30	INE is an autonomous administrative institution. For the exercise of its technical competence the INE shall enjoy the necessary functional capacity to ensure its operational impartiality
F	-	-
IR	-	-
I	Art. 14 Art. 12	ISTAT is a jundical person of public law and has an autonomous organisation. The Statistical Information Guarantee Committee controls the impartiality and completeness of statistical data
L	-	-
NL	-	-
P	Art. 14 Art. 4	INE is a public institute endowed with legal personality. ... the bodies of INE enjoy technical autonomy
UK	Executive Agency Status	The Director of the CSO has the responsibility to guarantee the integrity of statistics

2. LEGAL DEFINITION OF THE NSI'S MISSION

In most Member States, the Law on Statistics defines the tasks of the statistical service. As a rule, it does so in very broad terms. In Germany and Spain the definition takes the form of a long list, the result, as we have seen, of the care taken in demarcation of the competences of the central statistical office and those of the regional offices. Belgian and British law sets out only the ways and means of inquiries : the definition of the NSI's mission is implicit only in the list of inquiries required.

2.1 Two concepts : NSI and INSEE

Broadly, two types of organization can be distinguished, identifiable from their initials. First, there is the NSI, whose mission is to produce and publish statistics. Secondly, there is the INSEE, which adds to these tasks the use of statistics in economic studies.

The NSI is the most commonly found; the INSEE type of institute occurs only in France and - on paper at least - in Luxembourg and Portugal. But there are a number of intermediate situations, too.

Arguments can be found in favour of both formulae.

Believers in pure statistics, whilst not denying the value of research, take the view that the production of statistics is a big and complex enough job as it is; with limited resources, they claim, there is a risk of failing to achieve even that if research is included in the programme. Anyway, there are public, private-sector and university research departments outside the NSI.

The French approach, on the other hand, is based on the advantages assumed to derive from cooperation between producers and users of statistics within the institute. Such cooperation can certainly give rise to fertile interplay : users become more aware of the imperfections and limitations of statistics, whilst the need for statistics disclosed by the research can be turned directly to account in drawing up the statistical programme.

2.2 Components of the NSI's mission

Examining the situation in each Member State reveals five different types of mission : the production and publication of statistics; international cooperation; research; teaching; and technical assistance or cooperation.

2.21 Production and publication of statistics

Although this is the core business of a statistical office, NSIs are still some way from producing every possible and imaginable type of statistic.

2.211 Censuses and demographic, economic, social and financial surveys

The degree of responsibility of the NSI for major censuses and surveys is a function of the degree of centralization (i.e. operational centralization) of the statistical system. We shall return to this question in the next chapter. In a highly-centralized system, it is the NSI which has responsibility for all major censuses and surveys of a purely statistical nature.

2.212 Statistical exploitation of administrative sources

We saw in the historical review that statistics began as an administrative function, and that surveys and censuses were a later development. The pendulum is now beginning to swing the other way, partly because government departments are an Ali Baba's cave of data, and partly because there is a need to reduce the burden represented by a large number of surveys.

Recent laws on statistics take account of this trend, by giving the NSI the task of exploiting administrative data; these laws in effect establish arrangements for coordination between statistics and administration.

2.213 Opinion surveys

On the other hand, no statistical office takes any part in the opinion surveys which play such a wide role in everyday life - political life in particular. These are the domain of specialist institutes, and draw on special techniques.

Specialist exceptions to this are the short-term business confidence surveys and household purchasing surveys. These surveys, which assess current trends in business and the purchasing plans of households, are coordinated for the whole of the Twelve and partly financed by the Communities. The surveys are performed by the NSIs, except in a handful of countries where specialist institutes do the work (e.g. IFO in Germany).

2.214 National accounts

The preparation of systematic national accounts dates back the the period immediately following the second World war, under the leadership of the OEEC. National

accounts were originally the responsibility of specialist services in several countries (French Ministry of Finance, Economic and Financial Studies Service; Luxembourg Studies Service; Belgian National Accounts Study Group; Greece, etc.). Responsibility for national accounts was gradually transferred to the service best equipped to deal with them, and is now in all countries in the hands of the NSI, frequently with legal letters patent.

2.215 International statistics

The German Law on Statistics was innovative in that it expressly gives the Bundesamt the task of collecting the statistics of other countries, of the European Communities and of international organizations, and publishing the results in the interests of general documentation. The Bundesamt thus publishes not only the German Statistical Yearbook, but also a corresponding yearboop covering the rest of the world. Other countries generally do no more than add to their Yearbook a brief annexe on international statistics.

2.216 Other statistical tasks

The NSI has a duty to concern itself with advances in survey methodology. This is mentioned explicitly in the laws of several Member States - Spain, Luxembourg and others.

In Denmark, where the statistical system is founded on the exploitation of administrative registers, the law has since 1966 given Danmarks Statistik responsibility for "supervising or contributing to the establishment of central public registers for administrative purposes for public authorities, trade and industry, capable of being used for statistical purposes." (Article 1, 3rd indent).

In Germany, finally, the Law on Statistics assigns to the Bundesamt the job of popularizing statistics and bringing it closer to the layman : "publishing and presenting Federal statistics in the general interest."

2.22 International statistical collaboration

International collaboration dates back to the mid-nineteenth century, and the founding of the ISI in 1885. It made considerable progress in the years immediately following the second World war, first under the auspices of the United Nations and the OEEC, and subsequently - most of all - of the Communities. A growing proportion of NSI activity is now being performed within a context of European collaboration. It is consequently logical to see the more recent laws on statistics making specific mention of international collaboration amongst NSI tasks.

2.23 Economic studies

In France, the INSEE not only publishes and annotates its statistics : it publishes notes on the economy, economic forecasts and economic models. The Decree of 14 July 1946 establishing INSEE states clearly (Article 4) :

"The INSEE comprises the following services :
- *the national statistical service;*
- *the institut de conjoncture;*
- *the offices of the Directorate for the national plan, and the documentation service of the Ministry of the Economy, together with any other dependent bodies other than those concerned with the National plan;*
- *the foreign economies department.*

INSEE and the SSMs thus draft research papers on structures and their trends, plus summaries of two types : the Report on the accounts of the nation, and Economic survey notes (although they do not have a monopoly on the latter). In no other country do the research functions of the NSI extend so far.

2.231 Research papers

All NSIs publish methodological research papers : they are a by-product of the production of statistics. The Netherlands' CBS has even played a pioneering role, with its research into statistics of the environment, the informal economy, the social accounts matrix, statistics quality (BLAISE), etc.

But analysis of results is relatively under-developed, even in the countries where it is mentioned in the law on statistics - as is the case in Denmark, Greece, Italy and Portugal - usually because of a shortage of personnel; it has been cut back in Belgium. The laws of Ireland, the Netherlands and Spain make no reference to this activity. The Italian statistics plan 1992-94 makes it an aim, in accordance with Article 15(f) of the statistics law, which provides for "... research into the results of censuses." The *German* law mentions the "analysis" of figures, and this takes two forms : descriptive commentaries published in the monthly review Wirtschaft und Statistik, and Daten Report, published every other year and aimed at the general reader, which reviews the results of all statistics in a single volume.

In *Luxembourg*, finally, where the concept of statistics is close to the French, economic studies have traditionally been published in the "Cahiers économiques" series. Shortage of staff has interrupted these publications, and STATEC is concentrating on its quarterly economic analysis.

2.232 Economic surveys

In theory three countries produce studies on the economy : France, Luxembourg and Portugal. For Portugal, publication remains an aspiration. These studies have a logical follow-up in economic forecasting and, ultimately, in econometric models.

Elsewhere this task remains outside the remit of the statistical office - a fortiori since there are specialist economic institutes, such as ISCO in Italy, and Germany's "five leading institutes" - Berlin, Munich, Hamburg, Kiel and Dusseldorf.

2.233 Economic modelling

Only INSEE and STATEC are active here. STATEC has recently produced its first economic model of the national economy, developed jointly with the University of Amsterdam.

2.24 Teaching

Should NSIs take things one stage further and teach statistics ? Most organize internal further training courses; only two take an interest in the basic university teaching of statistics. In *Portugal*, the INE joined forces with the New University of Lisbon to establish the ISEGI, a school of statistics. And France goes even further : the École Nationale de la Statistique et de l'Administration Économique (National School of Statistics and Economic Administration, ENSAE) forms a directorate of INSEE, and shares its premises. It can turn out, made to measure, the statisticians INSEE needs to recruit.

Elsewhere, teaching falls outside the official duties of the NSI, which limits itself to organizing courses to prepare its staff for internal promotion examinations. Occasionally this process is extended a little : *Danmarks Statistik* regularly offers courses for users of statistics from the private and public sectors. In the *Netherlands*, the CBS organizes courses for its staff on specific subjects such as sampling theory, or methods of preventing the identification of individual data.

Finally, it should be remembered that a number of statistical office senior managers hold university teaching posts. In both Italy and the Netherlands, the head of the service must be an academic.

2.25 Cooperation

In many Member States the role of the Statistical office extends in fact, if not in law, to statistical cooperation with developing countries and the countries in transition towards a market economy. This assumes a fairly systematic form in France, Germany, Portugal, Spain and the United Kingdom.

INSEE has made very substantial contributions to the establishment of statistical services in the French-speaking developing countries. One form this action takes is the sending of INSEE executives on mission to those countries, and the welcoming of in-service trainees from those countries in INSEE departments. INSEE also plays a role in the training of senior management from the statistical offices of the developing countries, through the assistance it gives to the CESD (Centre Européen de formation des Statisticiens des pays en voie de Développement) founded by the European Commission and the French Government in 1962, which has gradually been transferred to Africa. CESD is a postgraduate school of statistics in two sections, mathematics and economics, whose courses extend over three years.

In *Portugal* the Law on Statistics makes specific reference to development aid, which takes two forms. The first is statistical cooperation agreements with the Portuguese-speaking countries, which involve the sending of consultants. Secondly, the CESD Lisbon, which began operations in late 1991, offers training and further training courses for statisticians from the Portuguese-speaking developing countries.

An analogous situation is to be found in *Spain*, where the INE organizes courses and seminars each year for twenty or so statisticians from the Latin American countries, and sends technical support missions. CESD Madrid, which trains statisticians from Spanish-speaking countries, opened its doors in 1992.

In the *United Kingdom*, the Overseas Development Administration (ODA), whose own statistical department forms part of the GSS, is responsible for aid to statistical development.

In *Germany*, finally, this aid is not the job of the Statistisches Bundesamt, but the result of a joint initiative by the Federal Ministry of Cooperation and Eurostat, with the support of the Carl Duisberg Gesellschaft. This was the foundation in 1972 of a training centre in Munich for statisticians from developing countries, organizing short courses in French and English. In addition, since the end of 1992 the Bundesamt has been holding courses in Berlin jointly with Eurostat's TES initiative, for the benefit of statisticians from the countries of central and eastern Europe which are in transition towards a market economy.

3. THE EXERCISE OF STATISTICAL AUTHORITY

Who has the authority to decide upon, and to implement, a statistical survey? Before we can attempt to answer such a question, two points need to be made :

1. Authority is never absolute. In each of the Member States there exist consultative bodies whose role is to pass judgment on any proposed inquiry and/or on the annual programme of inquiries (see Chapter 4).

2. A growing proportion of inquiries is being implemented Europe-wide, and the European decision making process is consequently competent.

For purely national surveys, three systems can be distinguished : the NSI management, government, and Parliament.

3.1 NSI management

Decision-making lies with the NSI's management board in five countries : Denmark, Greece, Luxembourg, Portugal and the United Kingdom.

In the Netherlands the annual programme of surveys must have the prior approval of the Central Committee on Statistics.

3.2 The government

In Belgium and Ireland, individual proposals for surveys are embodied in a Royal Decree or a Prime Minister's Decree. This lengthens the procedure by six months or more.

The same applies in France and Italy to the annual programme of surveys; although official approval is in fact little more than a formality.

3.3 Parliament

In Germany since 1953 and in Spain since 1989, a law is required for each new survey. This procedure can last anything from 18 months to two years.

3.4 Conclusion

From the point of view of the NSI, the first system is clearly to be preferred, since it leaves a maximum of responsibility with the Institute's management. The Belgian and Irish systems introduce built-in delays. Such delays are even worse in the German system, where it is effectively impossible to draft an annual programme of surveys, since the process for its approval would require more than a year. Furthermore, submission of proposed surveys to parliament introduces the risk of politicized debate. To avoid such pitfalls Spain has developed an ingenious device : a package of 25 new surveys was submitted to Parliament in the form of an annexe to the Budget Law, and approved at the same time as the principal law.

4. COMPLIANCE AND CONFIDENTIALITY - PILLARS OF STATISTICAL ORGANIZATION IN THE COMMUNITY

4.1 The twin pillars

Compliance and confidentiality are inseparable twins : born at the same time, the children of the same necessity - the need to create a system of censuses and surveys under which the power of coercion was balanced by a comprehensive guarantee. Compliance is fairly easily understood as a term, but statistical confidentiality presents countless questions of interpretation, the most fundamental of which is the scientific independence of statistics.

4.11 The historical background

Organized statistics in Europe dates back to the early nineteenth century, but the legal principles of compliance and confidentiality were introduced much more recently - between the two World wars or even since the second. There were isolated cases earlier in the twentieth century, and even in the nineteenth, of surveys in which non-compliance was punishable by a fine, but the fact remains that confidentiality and compliance, as organizational principles, appeared much later. Provision was made for both in German law in the 1920s, in Ireland and Italy in 1926, a little later in France. In Portugal it came with the law of 1935 establishing the NSI (although reference is made to confidentiality in a law dated 23 May 1911); in Belgium and the Netherlands, 1936. In the United Kingdom the question is dealt with in various laws, of which the first was the Census Act of 1922, followed by the Population Statistics Act (1938) and other laws.

Post-war, statistical confidentiality is mentioned for the first time in 1945 in Spain and Luxembourg in the statistical law; in Greece in 1956. In Denmark, compliance reached the statute book in 1966; confidentiality is not mentioned at all in the law on statistics, but in the 1978 law on registers.

4.12 Legal basis

Three systems can be distinguished :

a. In most Member States there is a founding law, or Law on Statistics, which sets out the guiding organizational principles, including compliance and confidentiality.

b. The United Kingdom has no founding law, but a number of *specific laws* (see Para. 0.221) of which the most important are the Population Statistics Act of 1938 (amended in 1960), the Statistics of Trade Act of 1947, the Agricultural Statistics Act of 1978, etc. They apply to a fairly broad group of surveys, for which they set out the ways and means, the population to be surveyed, the variables to be reported, and the questions of compliance and confidentiality. But the main rules on confidentiality are set out in the Government Statistical Service Code of Practice on the handling of data obtained from statistical inquiries, with further details in the Code of practice on confidential data.

c. The Danish system is analogous, in so far as confidentiality is essentially dealt with in an *internal memorandum*. There has been a legal basis for confidentiality since 1978, in the law on public registers. Compliance is nowhere set out as a principle, though the Law on Statistics of 1966 does list the data to be supplied in a number of domains - agriculture, industry, international trade, transport - with the penalty for non-compliance stated to be a fine. The amount of the fine, however, is not stated.

4.2 Compliance

If it were left to the good will of the population surveyed, we would never get an exhaustive census. That is the reason why every Member State has rules on statistical compliance. There are two points of view : in most countries the obligation to respond to a survey may be required by the NSI itself, in some cases with the agreement of (at most) the High Council on Statistics. In Belgium a Royal Decree is also needed. In the other group of countries, a special law is needed.

4.21 General system of compliance

In this we can distinguish three cases.

4.211 Compliance applicable to all surveys (Greece, Ireland, Luxembourg, Portugal)

The fact of having a rule of compliance applicable to all surveys does not stop the NSIs of these countries occasionally running voluntary surveys. What it does mean, though, is that the NSI has as a matter of principle the right to make any survey compulsory, and draw attentions to the penalties set out in the law, provided always that the programme of surveys has been debated by the High Council on Statistics. The law of Luxembourg puts it this way :

> *All persons both natural and legal shall provide the statistical information required by the Central Service ...*

Analogous provisions are found in Greek and Portuguese law; Ireland, too, has had a similar law since 1926, but the CSO interprets it in a perplexing manner. It is considered that only surveys ordered by the Prime Minister attract the requirement to respond. Most surveys are consequently conducted on a voluntary basis, and without penalties for failing to respond. Thus interpreted, the Irish law comes close to that of Belgium - see Para. 2.2.

4.212 Compliance limited to certain surveys (United Kingdom, Denmark)

In the United Kingdom there is (theoretically) a law for each category of surveys; in Denmark, as we have seen, the law lists the categories of surveys for which there is a rule of compliance. The lists are fairly lengthy, and it would appear that for each case thus provided for, no further formality is required before imposing compliance rules - so, in effect, this system is not very far removed from the general system of compliance.

4.213 Inclusion in the annual statistical plan (France, Italy, Netherlands)

In *France*, INSEE and the statistics departments of ministries must submit their surveys for the prior approval of the minister with responsibility for INSEE and of the minister responsible for the subject of the survey. Neither has the authority to decide that such a survey will be covered by the rules of compliance : for that, the survey must have been submitted to the Comité National de l'Information Statistique (CNIS) and have been included in the annual programme of surveys published in the Journal Officiel in the form of a ministerial decree. Outside the scope of the programme, the statistics departments are free to hold voluntary surveys.

A similar system is provided for in the new Law on Statistics in *Italy*. The previous law (of 1926) had included a general system of compliance, but under the new law compliance will apply only when the survey is included in the annual statistical programme, promulgated by Presidential Decree. In the case of individuals, moreover, compulsory statistical surveys must be listed in the decision of the Council of Ministers. Compliance remains in force when the survey is the subject of an earlier special law, e.g. the census of the population.

In the *Netherlands*, the CBS may require compliance for any of its surveys, provided that the survey in question has been approved by the Central Statistical Commission. The Commission has decision-making, as well as consultative, powers.

4.22 General rule of compliance after Royal Decree (Belgium)

Belgian law creates an implicit rule of compliance, by distinguishing a separate category of statistical inquiries to be effected on a voluntary basis. But at the same time, the law requires any new survey to have prior political approval in the form of a Royal Decree, except in the case of voluntary surveys, for which a Ministerial Decree is sufficient. These requirements entail delays of at least six months.

4.23 Special law required (Germany, Spain)

Germany in particular requires a new law for any new survey. There are a few minor exceptions. Compliance is enforceable only if it is provided for in the law enacting the new survey.

Spain has also recently opted for this system, a backward step vis-à-vis the law of 1945, which had established compliance as a general principle. Article 7 of the new law (9 May 1989) states : "The statistics in respect of which there is a requirement to respond shall be defined by law". In order to escape the complications of such a system, the INE devised and tried in 1990 an ingenious solution, in which an annexe to the Budget law of the year listed some 25 statistical inquiries to which compliance should apply in accordance with Article 7 of the founding law.

4.24 Rules for sample surveys

The law of Belgium makes a special case of sample surveys. Here general compliance may be required when the sample is random, i.e. when all members of the sample universe have an equal chance of being selected. This common- sense solution has been adopted informally by other countries, including France and Luxembourg.

4.25 Penalties

What happens to the respondent who fails to reply, or deliberately gives false information ? *Three types* of sanctions await him, according to country :

4.251 Fines

All countries provide for fines of some kind, ranging from token levels (Greece, Ireland, Italy) to considerable sums (Portugal, Spain). Portuguese law even provides for the fines to be indexed with prices; what is more, the product of the fine is payable to the INE. In Denmark the amount of the fine is determined by the court.

4.252 Administrative penalties

In addition to court fines, *administrative penalties* may be imposed in *France, Spain and Portugal*. These are imposed by the NSI itself, although the system is not without its red tape. In France, for example, the case must be submitted for opinion to the CNIS's Committee on statistical enquiry appeals.

4.253 Imprisonment

In *Ireland*, the system of fines is accompanied by the possibility of a prison sentence of up to three months. This will be abolished by the new law. Prison is an option in two other countries, the *Netherlands* and the *United Kingdom*, and both also distinguish between failing to respond and knowingly providing wrong data. In the latter case the term of imprisonment in the Netherlands may be as much as a year (or the fine may be doubled); in the United Kingdom it can be up to two years, in addition to the fine. This penalty would theoretically apply even in the case of a voluntary survey, had the respondent agreed to cooperate.

4.254 Prosecution policy

The Member States which have quite stiff penalties make efforts to apply them as sparingly as possible, and use persuasion instead. There are virtually no cases of imprisonment, although every year a number of recalcitrant respondents are fined in most countries - businesses in particular. Penalties are very rare in the case of households.

4.3 Statistical confidentiality

Statistical confidentiality means that the individual data held by an NSI, regardless of whether they come from a survey or from administrative sources, are out of bounds for any use of a fiscal nature, and for any repressive economic measures. They may be used only in order to establish the comprehensive, anonymous data known as "statistics".

For this reason, too, access to them is restricted to the staff who will be responsible for processing them. They cannot be made known to third parties of any kind - in other words, not even to government departments, or even the supervising minister. Confidentiality binds all those involved in the production of statistics, both within the NSI (regular and temporary staff) and outside it (enumerators).

4.31 Why have statistical confidentiality ?

The aim of statistical confidentiality, as of compliance, is to make it possible to create a valid system of statistical inquiries. Confidentiality aims in particular at dispelling three forms of misgivings common amongst respondents :

a. They frequently imagine that the public service forms a single unit under the close scrutiny of government, and within which information circulates freely between departments, and particularly towards the Revenue and other departments which might turn such information against them as taxpayers;

b. Many businesses, although convinced of the good faith of the statistical service, distrust its staff, and fear that the statistics may be used for industrial espionage which they would be unable to prove;

c. Some respondents believe that statistical analysis based on correct data permits the calculation of averages and other meaningful data enabling the government to take measures disadvantegeous to an entire trade, industry or profession.

Individuals who distrust the civil service have a tendency to provide data which are incomplete, sometimes also incorrect and late, in order to ensure that they are devoid of any usefulness.

To create an atmosphere of trust, the statistical service must reassure respondents that individually identifiable data are absolutely protected from administrative use of any kind.

4.32 What statistical confidentiality means

(a) Confidentiality is a guarantee of unconditional protection. For this reason, it applies not only to compulsory surveys : it applies equally to those which are voluntary. On the other hand, it does not apply in cases where the respondent gives his written consent to the disclosure of data relating to himself; nor does it apply when data have been rendered anonymous and incapable of being individually identified, or at least individually identifiable only after the disproportionate expenditure of time, effort and money (German law makes explicit provision for this).

(b) In order for the guarantee to be seen to work, two sacrifices are required of the state. First, it must erect a barrier between departments. The state must accept officially that a citizen may make different statements to different departments. At first sight this may seem immoral. But confidentiality implies operational independence for the NSI, even vis-à-vis its own minister, to whom it must plead its committment to confidentiality.

(c) For the state, confidentiality means a further *loss of information*. In order to prevent the disclosure of an

individual's data, any statistic must contain the data of at least three, four or five units, according to country. This prevents any of the units computing the data on another by subtraction. Even when the minimum is attained, it is possible that the statistic may not be published, because one of the component units is preponderant, i.e. accounts for more than a given percentage of the variable to be published. That percentage varies from 70% to 90% according to the country. It is also easy to see why there is so much secret data in small countries.

It remains to be seen whether the loss of data will always remain within acceptable limits. What of the confidentiality itself - is it absolute, or merely relative? And first, who is to judge the question ?

4.33 Who should interpret statistical confidentiality ?

If the logical consequence of statistical confidentiality is the operational independence of the NSI, then it must be up to the NSI's own management, or its management board, in its role as custodian of the trust, to settle any problems which may arise.

In Member States where it is for the management alone to interpret statistical confidentiality, it has been known to consult the High Council on Statistics. In *Portugal* such consultation is provided for in the law, and the Council may make exceptions. In *France*, the Law of 17 July 1984 established a Committee on Statistical Confidentiality as an arm of the CNIS, though its remit extends only to questions concerning businesses : its role is to examine the problems posed by the use of, and specifically exceptional access to individual data. This Committee is chaired by a member of the Council of State, and comprises four representatives each of the administration and business, and one representative each of trade union organizations and of regional and local users of statistical data.

But there are also countries where government steps in (see also Para. 3.5). In *Ireland* the 1946 law amending the 1926 Statistics Act allows for individual data to be communicated to a minister or a government department if the minister responsible for the CSO is of the opinion that the disclosure is necessary for that department or authority to function properly. However, it is proposed that this provision should be scrapped in the forthcoming new statistics law.

In the *United Kingdom* the Statistics of Trade Act 1947 lays down that the minister responsible for the statistical service may give instructions that individual data may be disclosed to a government department, or even to the Advisory Committee on import duties.

4.34 Growing importance of statistical confidentiality

There are a number of reasons why statistical confidentiality has assumed greater importance over recent decades :

- the *concentration* of businesses, and the appearance of conglomerates, reduce the number of firms, thus giving rise to problems of confidentiality;
- economic statistics are increasingly based upon local units, or *establishments*, and no longer merely on enterprises;
- regional policy and relocation policy increase the demand for data from smaller territorial units. Simultaneously, researchers are becoming increasingly interested in small population groups - *microdata*;
- the multiplying sources of statistical, administrative, etc. *data* add to the risk of disclosure of individual situations by comparison;
- all these risks are heightened by the power of the computer, which increases the production of statistical tables and facilitates research into interrelations.

4.35 Attitudes to statistical confidentiality - exceptions

A modern statistical organization offering no formal guarantee of confidentiality is unimaginable. The NSIs are agreed upon this. But two questions remain to be answered.

4.351 Confidentiality and the candid response

May NSIs have some doubts whether the guarantee of confidentiality produces candid answers. Despite all the guarantees, the population distrusts the statistical service, and the responses it gives are no fuller and no truer than those supplied to the Revenue or other authorities. *Denmark*, indeed, believes government departments are better able to check the facts, and that administrative data are consequently more reliable than statistics. In the *Netherlands*, on the other hand, it is felt that, because of the climate of trust created by the rules on confidentiality, the statistical service can sometimes obtain data unavailable to other departments - particularly data on incomes.

4.352 Does confidentiality allow for derogations ?

There is a case for a blunt answer to this question : either a secret is an absolute secret, or it is not a secret

at all. This is the view adopted by the Netherlands, Luxembourg, Italy, Spain, and others. But the fact remains that half the Member States make some provision for exceptions to the rule of confidentiality.

4.3521 The arguments for derogations

There is general agreement that respondents must be protected from any tort. That essential point made, the law on secrecy may be re-drafted, given that :

- statistics holds relatively few - if any - personally sensitive data (personal income, health record, criminal record) or strategically sensitive data (cost prices, stocks). Do statisticians therefore attach more importance to confidentiality than the respondents themselves?
- if too strict a conception of confidentiality is used, the loss of information is too great. Certain public services are then obliged to launch separate surveys, hence duplications of effort;
- French law distinguishes between natural persons, in respect of whom confidentiality is an absolute, and enterprises, in respect of which exceptions may be justified. Business, goes the argument, prefers efficiency and a lightened burden of administration to a hard-line conception of confidentiality. It is taken for granted that a ministry which receives confidential data may neither publish them nor take on the strength of them any measure likely to harm the businesses concerned.

We can now consider the different attitudes adopted by each Member State. For practical purposes it is best to start with the Belgian law which, with five explicit exceptions to the rule of confidentiality, is the most complete.

4.3522 Derogations to the rule of confidentiality

a. Limited number of respondents

Article 2 of the Belgian law reads thus :

"If disclosure of an individual situation is a possibility by reason of the the small number of declarants, the INS may nevertheless communicate the statistics in question to ministerial departments ... other than revenue departments. Under no circumstances shall legal or regulatory measures be enforced on declarants or census respondents on the strength of individual data thus disclosed."

German law contains a similar provision (Paragraph 16, fourth indent), but in this case the disclosure must have been allowed for in the special law ordering the survey in the first place. Neither the Belgian nor the German law distinguishes between individuals and enterprises.

In *France*, individual data on private or family life may not be disclosed under any circumstances; as for individual data of an economic or financial nature, the law goes no further than to state (Article 6) that they may under no circumstances be used for revenue investigation or economic measures. Identifiable individual data may be communicated to ministries for administrative use only. French law, in fact, goes further than Belgian law : the Ministry for Industry has access to the Enéide data base, which contains individual data on individual businesses.

We saw in Para 3.3 that analogous provisions exist in the *United Kingdom* and in Ireland.

b. Inquiries for administrative purposes ?

The second special case referred to in the Belgian law is disturbing : it indicates that the INS may be required to effect inquiries for administrative purposes, on behalf of other departments. This means the end of any strict separation of statistics and administration. Article 5 :

"When individual data are indispensable to the preparation, drafting or implementation of a Law, a Decree or a Regulation, His Majesty may order special inquiries to be undertaken with a view to making such data available to such ministries as He may designate ... other than revenue departments."

Examples of this are the monthly and annual surveys of industry, and the annual agricultural census - in other words, legitimate statistical surveys, which are used for administrative purposes.

The reason for this provision is that the INS is tooled up for the job of conducting surveys. Strictly speaking there is no breach of confidence since the respondents are made aware of the administrative nature of the survey. This exception nevertheless seems scarcely compatible with the principle of statistical confidentiality, the precise aim of which is to erect a barrier around statistics, to keep it separate from conventional administration.

c. Updating of administrative records (non-confidential information)

Can full-scale censuses be used to update government registers of individuals or businesses? Belgian law (Article 25 bis) reads :

"Population registers shall be updated and amended in accordance with the results of the general census of the population."

In practice, census returns contain one separate sheet pre-printed with individual data supplied by the local municipal authority : name, first names, address, place and date of birth, marital status, nationality, identity of household, name and first name of spouse, sex. The census is used to test the national register of population, correcting any erroneous data and filling any gaps.

Similarly, the ten-yearly censuses of industry and trade are used to update the business register and the register of trade. This practice dates back to 1856, and is justified by two arguments. First, in the nineteenth century, major censuses were at least in part administrative operations. Secondly, the data involved are considered non-sensitive, or more or less public domain : in the case of the individual, name, address, date of birth and (where appropriate) composition of the household; for businesses, name or style, address, activity and category by number of employees.

Analogous provisions exist elsewhere. In Italy, the census of trade and industry is used to update the registers of businesses maintained by the chambers of commerce; the census of population is used to update the municipal registers. In the Netherlands, the law of 9 July 1970 on the Census made provision for the CBS to make available to municipal authorities the data needed to update their population registers - but the Netherlands no longer organizes a census of population.

In all these cases there is some degree of blurring of the dividing line between statistical and administrative activity - which is why the legality of these practices has recently been brought into question. The German law on statistics of 1987 has taken an uncompromising stance, prohibiting this use of the census whilst it continues to be used elsewhere. In Luxembourg, German influence caused the Advisory Committee on Data Protection to step in and produce the same result for the 1991 Luxembourg census. Article 4 of the Grand-Ducal Regulation on the Census (24 January 1991) reads :

"Verification by municipalities shall go no further than ensuring that the territory shall have been covered exhaustively. Under no circumstances shall municipalities draw on data collected during the census to amend or add to their registers. Municipalities shall not append to the STATEC questionnaire any questionnaire of their own designed to collect data for their own use."

It seems here that we have strayed beyond the boundaries of commonsense. This path is one which is likely to threaten the good relations between statistics and the municipal statistical authorities whose cooperation is necessary for the successful completion of a census : they are obliged to certify that the census is exhaustive, without benefiting from it to obtain a handful of non-sensitive data.

d. Individual data not deemed to be confidential

Article 15 of the Belgian law permits data not deemed to be confidential to be used for non-statistical purposes :

"... on condition that the proposed use neither affects the interests of the declarant nor jeopardizes the accuracy of future statistical data."

For these purposes non-confidential data would include the name, forename, address and sex of an individual; the classification of businesses according to the number of employees, or of farmers according to the area under cultivation, i.e. by size.

There is general agreement amongst Member States that name, forename and address are not confidential. It is, however, important to define where the boundary lies, and Belgian law is the only one to spell out what is confidential. Article 15 :

"For the purposes of this exception, statistical confidentiality is deemed to apply to any data which could not be learned lawfully without some action being taken by the interested party."

e. Extending confidentiality to aggregated data

Is it possible, on the other hand, to extend statistical confidentiality to cover anonymous, aggregated data? Here, too, the Belgian law is eloquent (Article 24) :

"Any publication by the INS of anonymous, aggregated results of the inquiries undertaken pursuant to the present law shall be subject to conditions to be determined by His Majesty, who shall take the advice of the High Council on Statistics."

In Italy, too, this possibility is enshrined in law, against the risk of the publication of data being prejudicial to limited groups.

4.36 Penalties

There are two types of penalty.

- *Administrative* penalties, imposed by the administration. These exist in every Member State.
- *Criminal* penalties (fines and imprisonment), of varying severity according to country. British, Danish and German laws are toughest, providing for up to two years in gaol; in Greece the maximum is twelve months; in the Benelux countries and France, six months. The Netherlands and United Kingdom both distinguish between simple responsibility for breach of confidentiality, for which the maximum term is three months, and premeditated breach of confidentiality, which is more severely punished. In Denmark the courts have discretion over sentencing. New laws in Ireland and Spain have abolished imprisonment in favour of a heavy fine; imprisonment in Spain is for offences aggravated, e.g. by breaking and entering.

These differences in national rules present a real problem for European rules on statistical confidentiality, because it is national courts and legislation which will will determine the penalties. The penalty for the same offence will vary widely from one Member State to another.

Every Member State asserts confidently and proudly that it knows of not a single case of *breach* of confidentiality. That is rather worrying : the laws of probability would suggest that with 50 000 people working in the twelve statistical systems, there must have been some breach of confidentiality during the past fifty years, a fortiori since in certain Member States there has been a tendency towards the politicization of the civil service. Surely, if there has never been a prosecution, it must indicate that breaches of confidentiality go undetected or, if they are detected, are covered up.

4.37 Differences of interpretation

There remain a number of questions of interpretation to which not all countries have found the same answer.

a. Criminal law interpretation of the nature of statistical confidentiality

Three different conceptions of this exist :

- several laws on statistics refer directly to the article of the Code pénal dealing with professional confidentiality, which includes statistical confidentiality. This is the case in France, Belgium and Luxembourg.
- Italian law refers to the provisions of the Civil Service Staff Regulations on confidentiality ("segreto d'ufficio"). Danish law has a similar provision.
- In the remaining Member States, breach of statistical confidentiality is a criminal act sui generis.

b. Requests by the supervising minister for individual data

What answer does the NSI give if its supervising minister, its political master, asks for individual data to be supplied? Here there are subtleties at work, for in several Member States, individual data on businesses may be supplied to government departments. Assuming that we are concerned with the data of a household (to which confidentiality applies in full), the NSIs agree generally that their minister is not an agent of the statistical service, but a third party, and that he should therefore be advised that it is not within their power to accede to the request. In Belgium the answer would probably be that the Minister would order a survey for administrative purposes (see Para. 3.552 (b) above).

c. Consent of interested parties - provision of copies of completed questionnaires

In a number of Member States the law provides for individual data to be forwarded to third parties with the explicit consent of the interested party. This commonsense solution has also been adopted elsewhere where there is no specific legal provision.

A respondent may also request a copy of his replies to previous surveys - a fortiori since as a rule questionnaires should be completed in duplicate, one copy of which to be retained by the respondent.

d. Samples for sample surveys

Any NSI will, of course, extract samples from its own records. But is is permitted to divulge samples for the purposes of scientific research ? Two cases can be distinguished.

The first is the list of names and addresses which is needed to initiate any sample survey. NSIs are reluctant to release anything more than the name and address - an attitude so restrictive that it strips the sample of virtually all value.

The second case is that of "microdata".

e. Microdata

Microdata are raw, anonymous data whose information content has been reduced. For scientific use, the CBS is able to release what it terms "Public use files anonymized for secondary research", but it takes care first that the data thus released are so anonymous that no identification is possible.

In Germany, the University of Mannheim has conducted a large-scale study of computer methods capable of

ensuring that statistical confidentiality is maintained even in highly-detailed tabulations.

There is also the question whether researchers might be permitted to work on microdata, regardless of whether they have been anonymized, on NSI premises and after signing an appropriate undertaking to respect confidentiality. Such an undertaking would temporarily place them on the same footing as the NSI's own staff. The pressing demands of researchers wanting to use microdata mean that this question will soon have to be answered clearly.

f. External trade - passive confidentiality

External trade statistics are a special case, treated as such by every Member State. Note first of all that the documents themselves are from the customs service, and therefore administrative. They are nonetheless secrets - trade secrets - and the statistical service has a duty to keep them secret. The statistical units in this case are not individuals or businesses, but imports and exports. Individual cases of statistical confidentiality are not, therefore, immediately apparent. In a country as small as Luxembourg it is possible to know which products are likely to be requiring confidentiality, and the data can be aggregated with those of other headings. But in a larger country it is not as a rule possible to tell in advance which data will require the cover of confidentiality. The procedure is then to publish, wait for the interested party to react, and treat the data as confidential thereafter. This is known as "passive" confidentiality.

g. Time limits on confidentiality - statistical archives

The questionnaires completed during major censuses (population, industry, services) and in certain surveys (family budgets) are of historical value, and as a rule they are turned over to the public records department - the State archives. The French Law on Statistics of 7 June 1951 spells it out in Article 6 : *"Censuses and statistical inquiries ... are deemed to be be public records"*. They consequently become open to the public after the expiry of a certain length of time.

For data on individuals, the most sensitive case, the time limit in several Member States is 100 years. In Spain it is 50 years or 25 years after the death of the individual concerned. For other data the time limit may be 30 or 50 years, according to circumstances. These are the time limits for conventional paper archives.

Computer archives (tapes, etc.) are as a rule anonymous, bearing no more than a reference permitting the researcher to return to the original document for verification purposes. For data on individuals, the reference is erased after completion of the verification process (see Para. 3.6). The archives proper remain those on paper.

There has been a recent tendency towards the *destruction of statistical archives* on paper. Both the German data protection law and the Spanish law on statistics require census questionnaires to be destroyed after analysis. The Luxembourg Advisory Committee on Data Protection has similarly called for census questionnaires to be destroyed. We feel that this tendency is open to some criticism, and may even be a danger. The first point is that it brings to an end a century's tradition of keeping archives of significant statistics. From the purely statistical point of view it is just about possible to accept their destruction, given that the aim of a census is to establish statistics, not to keep individual data. But it may exceptionally be necessary to return to individual data, for the purposes of verification or if a magnetic tape is damaged or corrupted. (This is compounded by the fact that man still has no experience at all in the long-term conservation of computer archives). Finally, census archives are of historical interest.

h. Business registers

Should NSIs be entitled to publish registers showing the name, address and activity of businesses, possibly together with additional information? Prima facie the answer seems to be "no" : first, they are individual data, secondly they are not statistics. But there are arguments for publishing : such information is public knowledge; publishing it may perform a number of useful services.

Belgian law provides that, when they are not the subject of statistical confidentiality, individual data may be disclosed *"... on condition that the proposed use neither affects the interests of the declarant nor jeopardizes the accuracy of future statistical data."* The Belgian INS takes this as its licence to publish lists containing the name, address, activity, and class by size of businesses and establishments. France does the same. Most NSIs are in fact willing to publish the name, address and activity of businesses. Only with the firm's agreement do they publish its size. In Germany, even the firm's principal activity is held to be confidential.

4.38 Statistical confidentiality and the protection of privacy

Most countries now have a law on the protection of data, the foundations for which were set out in the Strasbourg Convention of 28 January 1981 "on the protection of individuals with regard to automatic processing of personal data." The principles set out in the Convention apply to individuals but not to businesses (one-man businesses form a grey area), and even then apply only when there is automatic processing of the data. Because of the risks inherent in the use of computers (relatively small volume required to store very large quantities of data; data easy to access, transmit, amend, or interconnect, etc.) the new legislation provides that any new computerized data base must be duly authorized after approval by a special body with a responsibility for the protection of data. The law establishes new rights for the individuals concerned by the data thus held on computer-readable media : the right to know what type of information has been recorded, for what purpose the information has been stored; and the right of access to the data, and to correct them if necessary.

These supervisory bodies respondible for "data protection" may be either advisory, as in Luxembourg, or decision-making, as in France. The nature of their responsibility means that they have a right of inspection over the work of the NSI, and such a right can become an embarrassment when the supervisory body takes too lofty a view of its own role. It is paradoxical, not to say insulting, that an NSI can be thought capable of breaching the individual's right to privacy, when the protection of confidentiality is in fact its constant preoccupation. The Strasbourg Convention provides for statistics to be treated as a special case, declaring that the rights of access, correction and complaint do not apply in the case of computer files used for statistical or scientific research purposes. But certain countries' laws fail to reflect that provision (France, Luxembourg). Moreover, the principle of purpose, i.e. that the data stored on computer may only be used for the purpose for which they were intended, seems inappropriate to statistics. It is not possible to predict what tables one may wish to generate from a survey.

Broadly speaking, *three categories* of law and national body can be distinguished :

- In Spain, the 1989 Law on Statistics is also a data protection law specifically aimed at statistics;
- In other countries the law mentions the special nature of statistics, and is consequently not a cause of concern to statisticians (Denmark, Ireland, Netherlands, United Kingdom);
- In certain countries the scope of the data protection authority extends to the management of statistics, and is thus becoming a source of irritation (France, Germany, Luxembourg).

An example of the last-named tendency is the Luxembourg Advisory Committee, which opposed the updating of population registers on the basis of the census (see Para. 3.522 (c)), which called for the full date of birth to be removed from the census questions, and which refused to allow census data to be used for a study on unmarried cohabitation, since the question did not appear in the original programme of tables. This Committee has gone so far as to suggest that completed census questionnaires should be destroyed after completion of the analysis, notwithstanding their status as public records (see Para 4.37 (g) above).

There remains the question whether computer files should be depersonalized in such a way that it becomes impossible to identify any one individual. Article 5 (d) of the Strasbourg Convention proposes such a form of depersonalization; the Irish Act (Section 2 (3) (a)) and the British Act (Annexe 1, Part II (7) (b)) both go clear against this line, favouring the rights of historical research. These personal data may be kept indefinitely.

The *British Act* also provides (Section 33 (6)) that personal data held for statistical purposes or research are not subject to the right of access. Article 6 of the Strasbourg Convention provides that certain questions - political opinion, religious beliefs, race, state of health, etc. - should not be asked in the absence of suitable guarantees. Here the Data Protection Act provides that the Secretary of State may order special safeguards measures. This means that such questions may still be asked, since the appropriate guarantees are in place. In Luxembourg, on the other hand, the hundred-year-old time series on religious denomination was abruptly ended.

4.4 Conclusion

The diversity of national rules on confidentiality is a reflection of the old French adage "Autres pays, autres moeurs". Such diversity may seem odd, given that a growing proportion of statistical work is done jointly within the Eurostat programme.

Over time there is bound to be a degree of rapprochement, as contacts lead to greater mutual knowledge. The lesson, clearly, is that each country must borrow only the good ideas, leaving the bad ones out in the cold.

5. CENTRALIZATION OR DECENTRALIZATION ?

5.1 Decentralization and deconcentration : the definitions

The word "centralized "is used to describe a statistical system in which the majority of inquiries and analyses are performed by a central service. In a decentralized system, specialist statistics are established in the relevant ministries - agriculture, transport, energy, labour, and so on. Such operational decentralization should not be confused with purely geographical decentralization, also known as "deconcentration" which is a phenomenon in most of the larger Member States and even some of the less large. This we can dispose of immediately.

5.2 Types of geographical decentralization

Decentralization may be decided by the government, because of congestion in the capital, or for regional development reasons. That, for example, was why the Netherlands government decided to move part of the CBS from the Hague to Heerlen, in the south-east of the country, an area which had been affected by pit closures. The Irish government has similarly decided that most of the CSO will in 1994 move to Cork, on the south coast of Ireland. Political decisions of this nature usually conflict with the wishes of statisticians, and have nothing to do with an NSI policy of wishing to get closer to the survey respondents and to the users of data. For that, on the other hand, we can distinguish four situations.

5.21 Member States preferring centralization

Certain NSIs find it more efficient to have all their staff in the capital, and if necessary to recruit local enumerators for major censuses. That is naturally the case in Luxembourg, but also in middle-sized countries such as Denmark, Ireland, the Netherlands, and even in one "big" country, the United Kingdom where, notwithstanding a number of exceptions, the ruling principle is that of geographical centralization.

5.22 Regional offices answerable to head office

In this case, regional offices remain at the orders of the national institute. INSEE, for example, has regional offices in 24 provincial cities of France, each with an average staff of 200 : their total manpower is more than twice that of head office in Paris. Since 1977, *Belgium* has had regional centres in Antwerp, Ghent, Liège and Mons, with around 50 staff each. *Portugal* is establishing five small regional offices, in Porto, Coimbra, Lisbon, Évora (1991) and Faro (1993). *Greece*, broken up naturally by the sea and the mountains, has 51 regional offices, though their total staff is no more than 300. In Italy, ISTAT has 15 regional offices employing 236. The *Spanish* INE has a delegation in each of the 50 provinces, plus two local delegations, who account for almost two-thirds of INE staff.

5.23 Federal deconcentration

This is what happens in Germany. The statistical offices of the 16 Länder have a degree of autonomy, and the Federal Office cannot give them orders, but must negotiate the organization of work needing to be done jointly. The Länder offices employ almost three times as many staff as the Bundesamt. They are satellites to the Bundesamt, forming with it an integrated structure : conferences analogous to the DGINS are held three times a year in order to coordinate work.

5.24 Autonomous communities

The situation is less clear in Spain, and to a certain extent in Italy. In Spain the regional branches of the INE coexist with the statistical offices of the regions, which in Spain are known as Autonomous communities. This can give rise to duplicated efforts, which is why the Law on Statistics of 1989 established a joint inter-territorial committee comprising representatives of the autonomous communities' statistical services, of the INE, and of the national statistical services, under the chairmanship of the President of the INE. The law (Article 43) describes the role of this committee as "... to oversee coordination, cooperation and homogenization as regards statistics between the (central) State and the Autonomous Communities ..." But the INE does not have any legal pre-eminence over the regional statistical services.

5.3 The various types of operational decentralization

5.31 The long-term trend; access to administrative data

The pendulum is now on its second beat. Statistics was first decentralized; progress was made by centralizing, and the trend is now once again towards decentralization, for the great problem of the age is to exploit the Ali Baba's cave of quantitative data held by government departments. This does not diminish the fact that every statistical system requires a central authority responsible for the coordination of methods, definitions, classifications etc. The question is whether access to administrative data is best tackled from the starting point of a central statistical office, or whether it is better to disperse statistics. This is the same question as lies at the heart of statistical organization, and there are a number of systems and of opinions. It is fair to say that smaller and middle-sized countries prefer centralization, because they thus avoid the additional costs and coordination problems which result from having a number of statistical services. At the other end of the scale, in very large countries such as the United States, decentralization is the only answer to the disadvantages of gigantism - although the American system in fact suffers by not having any coordinating body.

Within the Community, we cannot say either that all larger countries practise decentralization. Only in the United Kingdom (and in some ways in France) is it pursued to any great lengths; in Germany, the largest Member State, it is non-existent. In Spain the modest degree of decentralization currently in existence is giving rise to problems of coordination. And Italy is trying the notion of a national statistical system in an attempt to overcome the problems of having a multitude of statistical services.

5.32 Centralized systems

This is the commonest type of system : it is found in the three Benelux countries, Denmark, Germany, Ireland and Portugal. Portugal has opted for flexibility : Article 16 of the 1989 Law on Statistics allows the INE, with the approval of the High Council on Statistics, to delegate statistical tasks to other government departments, or to terminate such delegated authority.

But nowhere is centralization total. We frequently find small statistics services in government departments such as education or social security, sometimes also health or justice. In many cases the national bank establishes balance of payments figures, and collects monetary and banking statistics.

5.33 Advanced decentralization : the United Kingdom's GSS

It is the United Kingdom which has taken decentralization farthest. Every government department has its own statistical service. There are more than 30 such services in government departments alone, and a further 20 in other organizations. There is not just one supervising minister, but one supervising minister for each department. There is not just one law on statistics, but a series of specific laws each of which sets the rules on compliance and confidentiality. Until July 1992 the United Kingdom had no high council on statistics, but an advisory body for the statistical tasks of each department (see 7.2, below). The number of statistical publications is very high, since each department publishes its own statistics. Such a system would not work at all without a high degree of coordination, and this is the task of the Central Statistical Office, which advises on questions of methodology, and oversees departmental inquiries to ensure that duplicated efforts are avoided. The CSO is in charge of careers and promotions, and centralizes recruitment to the Government Statistical Service.

Number of regional offices

COUN-TRY	NUMBER	PERSONNEL	REMARKS
B	4	180	Antwerp, Gand, Liege, Mons
DK	-	596	
D	16	9079	Offices of the Länder
GR	51	(300)	
E	50	2026	Provincial delegations (+ 2 local delegations) p m without Autonomous Communities
F	24	4635	Regional Directorates
IR	-	500	Transfer to Cork in 1994
I	15	(2700)	p.m without the offices of SISTAN
L	-	80	
NL	-	2770	p m. . The CBS has a seat in Heerlen
P	5	207	Porto, Coimbra, (Lisbon), Evora, Faro
UK	p.m.CSO	1050	p m Statistical services have been relocated in about 20 cities (regional planning)
	Ministries	+3770	

5.34 Half-way house : France

The paradox of France's statistics is that the system is highly integrated yet decentralized both functionally and geographically : there are 24 regional offices and 19 Ministerial Statistical Services (SSMs). Most of the managers of the latter are INSEE staff, on secondment in the ministry. Statisticians also all receive the same training at the ENSAE. And both the ministries and their statistics services are represented on the Conseil National de l'Infor- mation Statistique (CNIS) which draws up the annual statistical programme and discusses disputes arising from surveys and problems of confidentiality.

The French system combines the benefits of decentralization - proximity to respondents and users - with those of centralization - coordination of concepts, methods, surveys and publications.

5.35 Statistical ubiquity : SISTAN in Italy

The new (1989) Italian Law on Statistics takes matters even further, envisaging both geographical and functional decentralization taken to their absolute limits. An early estimate by ISTAT, given at the 1991 ISI Congress indicated a total of 962 statistical services, not counting those of municipal authorities : they would all be coordinated and directed by ISTAT, which would be shouldering an enormous responsibility for technical, methodological and organizational coordination. To this end ISTAT would need a strong team of methodologists capable of advising outlying statistical services. A new body would be involved in establishing the statistical programme, the Committee for the Guidance and Coordination of Statistical Data; it would also be responsible for the issue of binding directives and guidance notes for the various components of the national statistical system. A distinction must henceforth be drawn between the SISTAN programme and the ISTAT programme, the latter now being a component of the former.

5.4 The theoretical issues

Constantly enriched by new arguments, the debate continues on the relative merits of centralization and decentralization. No final conclusion in favour of either has been reached.

5.41 Benefits of centralization

These are well-documented : economy, coherence, simplicity, impartiality.

Centralization allows statistics to avoid establishing a multitude of common services departments (accounting, budget, personnel, etc.) and is therefore a necessary solution in smaller countries and those with limited resources.

It is a guarantee of methodological coherence : definitions, classifications, inquiry methods, etc.

It helps avoid duplication of efforts - and friction between colleagues.

It makes it easier to keep central registers up to date.

It helps the user, who knows that there is only one place he need seek information.

Finally, it is better sheltered from political pressures, a fortiori since a central statistical institute usually has its own special rules, and is housed in a building of its own, away from the ministry's premises.

5.42 Benefits of decentralization

There are two major arguments for decentralization.

First, proximity to sources and users of data. Statistical services actually located within ministries find it easier to obtain administrative documents, and can get administrative support though the ministry's regional offices, giving them a line of approach to survey respondents. They also have a better knowledge of what users need.

Secondly, the total budgetary resources obtained by a large number of dispersed departments is very likely to exceed the total obtained by a central statistical service. The specious nature of this argument is clear.

The advocates of decentralization also have answers to the arguments for centralization :

Differences in method? Duplicated effort? Avoiding such things is why there is permanent contact, why we have coordinating bodies, and above all why the central statistical body has a coordinating role.

Higher overheads ? A ministerial statistical department is part of its ministry, and shares the costs of administration. (Although this merely raises the problems of separating administration and statistics, and of the absolute operational independence of statistics).

5.43 Conclusion : the problem of coordination

Three conclusions can be drawn from these arguments.

First, that the benefits of centralization are conclusive in smaller, and even in middle-sized countries.

Secondly, that decentralization cannot work without a powerful coordinating body. The example of the United States should not be followed.

Finally, that greater use of administrative data will bring in an element of decentralization everywhere - even in small countries. This raises the problem of coordinating definitions and methods.

B. RESOURCES AND ORGANIZATION

6. RESOURCES : PERSONNEL AND BUDGET

6.1 Staffing levels in the statistical services

6.11 Methodological problems

It is a galling fact that statisticians are unable to determine how many people work in statistics. The fault lies with decentralization : if all statistical work were concentrated in a single institute, there would be no problem establishing how many people were employed on it. Things are regrettably never as simple as that. Even in countries where statistics is highly centralized, some statistics are compiled by the monetary authority, the ministries of education, justice, health, social security, and agriculture, by state agencies and quangos, etc. In such organizations there may be no clear distinction between administrative and statistical work, or between accounting for the two. Sometimes, also, such bodies do not want to have it known how many of their staff are engaged on statistical work.

Difficulties also arise in decentralized systems when regional and ministry statistical departments enjoy a large measure of independence vis-à-vis the central body. Time and persuasive skills are then needed to obtain details of the total manpower and expenditure of such statistical services. The problem becomes even thornier as we descend a tier to local government level, at least as far as measuring their contribution to national statistics is concerned.

In order to find an international comparison, therefore, we must estimate the total staffing of the national statistical system - of Italy's SISTAN and its eleven equivalents. This has been attempted by counting for each Member State the staff who contribute to national statistical work in

- the central statistical service;
- regional statistical services;
- local statistical services;
- ministry statistical services;
- the statistics department of the central bank;
- any other statistical services.

For local services figures exist only in Germany and Denmark. In Germany municipal statistics is highly developed : its staff take a part in the general census, but also carry out work of local interest. It is open to question whether account should be taken of these staff, since corresponding figures for other countries are not available anyway.

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Apart from the uncertainties surrounding certain figures, international comparison also raises two further problems :

1. As was seen in Chapter 1, not all NSIs have the same calling. The French INSEE has a substantial role in research (119 staff in head office, around 490 in the regions), and in teaching (136 staff are in post at the ENSAE, including 69 paid student-officials), making a total of 11.2% of the INSEE's head office and regions payroll. Other NSIs have tasks which are not directly connected with statistics, such as maintaining the electoral roll, the business register, etc.
2. Geographical decentralization does not mean the same thing to all Member States, although it remains true that in theory regional offices can be given tasks of purely regional interest. On the other hand, we have seen that in Germany the statistical offices of the Länder enjoy a fair amount of independence, and in Spain the independence is even greater.

It is consequently important not to lose sight of these caveats. The figures in the following table are the only ones available; it was felt important to attempt a preliminary comparison, until such time as the Eurostat working party on resources, which met for the first time in February 1990, resumes its meetings. Clearly, further work remains to be done, particularly as regards harmonized definitions of staffing in the various tiers of the national statistical system.

6.12 Country-by-country comparison of staffing levels

The following figures relate as far as possible to the same year (1991). For Germany it was necessary to take 1992 figures in order to take account of the statistical services of the new Länder. The figures for France are also from 1992, except in respect for the SSMs, which are from 1990. In the case of Greece, ministry staff are included within those of the GNSO; in France, on the other hand, INSEE staff seconded to the ministries are included amongst the ministry staff. Generally, the figures do not include staff recruited temporarily for the census of population.

Having said all that, we can conclude tentatively that a total of around 53 000 staff are employed by the national statistical systems of the twelve-member Community, making about 1.5 per 10 000 population.

Data available november 1992

PERSONNEL IN STATISTICS : PROVISIONAL DATA FOR 1991

LAND	B	DK	D (1992)	GR	E	F (1992)	IRL (1992)	I	L	NL	P (b)	UK	TOTAL CEE
1 CSO	885	596(a)	3226	752	1106	2035	500	2665(b)	80	2770	692	1050	18482
2 Regional Offices	180	52	9079	240 (ou 3007)	2026	4635	.....	(2700)	.....	.....	207	n.a.	17520
3 Local Offices	....	89	(4625)	..... dont	.....	.....	.....	.....	.....	.....	.....	.....	(4714)
4 Statistical Services of Ministries	(150)	250	n o	(183)	655	2860 (en 1990)	(100)	(2700)	5	(230)	220	3700	9587
5 Statistical Services of the Central Bank	60	45	300	61	M 200	270	n.a.	220	4		82	n.a.	1242
6 Other Statistical Services	n o	n o	n o	.....	680	n a	n.a	.....	7		n.a.	n.a.	7
7 TOTAL PERSONNEL	1275 +	1033	17 230	1058	(4700)	9800 +	600	(8300)	96	(3000)	1201	4740	53000
8 TOTAL POPULATION (mio)	10	5,1	80	10	38,8	58	3 5	57,8(b)	0.4	14.8	9,8	57	343
9 = 7 8 Empl Stat per 10 000 Population	1,3	2	2.2	1,1	1,2	1,7	1,7	1,4	2,4	2,0	1,2	0,9	1 54
10 NUMBER OF STATISTICIANS (in 1+2)	60	140	468(d)	328 (ou 3637)	720	1320(c)	43	513	12	445	225	611 (CSO) ?	
11 = 10 1 % OF STATISTICIANS or 10 / 1+2	6	23	14(d)	31	23	20(c)	9	19	15	16	25(c)	14 GSS 10 1+4	

Numbers in brackets = estimation

n.a. *not available*
(a) *550 in 1992*
(b) *31 december 1991*
(c) *INSEE with regional directions, INE with general directions and local services*
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It can be seen that Italy lies close to the Community average.

Two Member States seem to have a particularly dense population of statistics staff : Luxembourg (2.4 per 10 000 population) and Germany (2.2). Luxembourg's result illustrates the point that overheads represent a burden on the statistical systems of smaller countries - there is a range of administrative support services - accounting, personnel, archives, library - which must be provided regardless of the size of the department; in addition, the smaller the country, the higher the sampling rate must be. Finally, STATEC has research duties to perform alongside its statistical tasks. The high figure in Germany is explained in part by the size of the statistical departments in the Länder, but also by the fact that local authority services have also been included - removing them from the total brings the ratio back to 1.6 per 10 000 population, but also cuts the Community average to 1.4. Discounting half of them brings the German rate back to 1.9 per 10 000.

The Community average is also exceeded in Denmark, a "smaller" country, and the Netherlands, which is middle-ranking in size (2.0 per 10 000 in both cases). France and Ireland, on 1.7 per 10 000, also exceed the Community average, though subtracting those involved in INSEE research and teaching activities brings the French figure down to 1.6.

Staffing levels are relatively low in Belgium (1.3 per 10 000 population), Portugal and Spain (1 2), Greece (1.1) and above all the United Kingdom
(0.9). Here, however, the figure is likely to rise again after the savage staff cuts of the early 1980s.

Geographical and administrative distribution

In certain Member States the regions employ a substantial number of staff. The regions/head office ratio in Germany is 2.8 :1, in France it is 2.3 :1 and in Spain 1.8 :1. Italy may well go the same way

Ministry statistical services (SSMs) in France have 1.5 times the staff of INSEE; in Italy their total may be comparable to that of ISTAT. The ratio in the United Kingdom is 3.2 :1 - it had been around 30 :1 before the reforms of the late 1980s, when the CSO had been reduced to a nucleus of only 150 staff. There is no better illustration of the extreme decentralization of the British system, or of its recent U-turn towards centralization.

A statistical office still measures its power by the proportion of university graduates amongst its staff. The table shows the proportion to be abnormally low in Belgium, and perhaps in Ireland (see 6.31 below) - the Irish figure does not include graduates engaged in administrative ("non-professional") tasks.

6.2 Factors affecting staffing trends

The table (page) offers us a snapshot of staffing levels in 1991. If we turn to the trends in staffing, we see that they are no less contrasted. There is a tendency towards higher staffing levels in the United Kingdom, Belgium, Luxembourg, and perhaps Portugal and Italy, whilst official policy is towards cutting staff in Denmark, France, Ireland and the Netherlands. There are a number of factors underlying these trends.

6.21 Staff shortages; staff surpluses

The international comparison shows us that the United Kingdom, Belgium, Greece, Spain and Portugal are all under-staffed. In these countries the trend ought logically to be upward.

The case of Greece is anomalous, for here we have a country which simultaneously has a shortage of qualified staff and a plethora of unqualified staff. The "immoderate recruitment" (OECD) in the run-up to the elections of the 1980s is a burden on the department's productivity. Even so, 38% of posts in the organizational chart are unfilled, the result of dilatory administrative procedure and recruitment difficulties. In fact, if Greece were to fill its vacant posts, it would reach the Community average of 1.5 statistical staff per 10 000 population. But *Greece* is going to have to transfer elsewhere the staff who do not have the requisite qualifications.

The handicaps of limited size

Luxembourg, which already has the highest rate, nevertheless continues to raise its staffing level, because of the problems inherent in running a statistical service at miniature scale. In addition, Luxembourg will be obliged to increase its staffing by a further 10% to cope with the Intrastat system : STATEC must in future take responsibility for statistics of intra-
community trade, a task hitherto performed by Belgium under the Belgo-Luxembourg Economic Union.

It is reasonable to assume that the miniature scale factor will also apply to some extent in Ireland, and that the CSO will similarly have to raise its staffing level.

6.22 Advances in productivity

There is no doubting that the widespread introduction of computers has enabled rapid progress to be made in the productivity of inquiry analysis, and sometimes even in the collection of data and publication of results. However, no-one has yet succeeded in measuring that progress, since it is hard to place a definition on a statistical unit of production. The fact remains that several governments are of the view that statistics staffing levels should be falling, as a result of three productivity factors in particular :

- the widespread introduction of computing and desk-top computing;
- the growing use of administrative data, itself facilitated by the spread of computerization;
- the rising proportion of graduates.

In *France*, the staff of the INSEE is being cut at an annual rate of 0.7%, and those of certain SSMs by several percent each year. In the Netherlands, the CBS's staffing level has fallen 15% in 10 years, and is still falling. *Danmarks Statistik's* staff have been lost at an annual 2% for several years, and these cuts have now reached the point that certain tasks have been reduced or abandoned; there have even been dismissals. This leads us to the next factor.

6.23 Budgetary review

The situation is far more serious in the case of job cuts which are attributable not to rising productivity but to a diminishing budget. This has been the case in Ireland in particular, where cuts in the statistics budget have reached a critical stage. But analogous problems are likely to arise in every Member State where the national debt and budget deficit are too high (compared with GDP) for entry to the monetary union. That includes Belgium, Italy, Greece, Portugal ... statistics is going to have trouble standing up for its rights.

6.3 Staff structure and administrative status

6.31 Graduates, high-school leavers, others

Methodological note

The structure of the NSIs' personnel, broken down into three levels of academic achievement, is shown in the following table, compiled from raw data provided by the NSIs. The educational structures of the Twelve are not always fully comparable; there is a consequent need to harmonize definitions, as well as to make good lacunae in the data.

The table discloses some surprising differences.

The proportion of graduates is manifestly too low in Belgium and in Ireland, but exceptionally high in Greece. The Greek figure (31%) is probably indicative of over-staffing amongst graduates, explained by the divided nature of the organizational chart (see Chapter 4), by the employment of over-qualified staff on certain tasks, and by the recruitment of staff with inadequate qualifications in statistics.

Personnel structure in 1991

in %

	B	DK	D	Greece	Esp.	F	IRL	IT	L	NL	P	UK
University graduates	6	23	14	31	23	17	9	19	14	15	25	(14)
High school graduates	28	(24)	13	n.a.	32	22		56	33	22	48	n.a.
Other	66	(53)	73	n.a.	46	61		25	53	63	27	n.a.
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

Also surprising is the wide range in the percentages of high-school leavers, from 13% in Germany to 56% in Italy. No explanation has been made available

Broadly speaking, there has been a gradual rise in the number of graduates, and of high-school leavers, and a falling off in recruitment of unqualified staff. This is a result, but also a cause of the growth in productivity. Computers need better-trained staff, but then allow the same work to be done by fewer people.

6.32 Are statisticians all that is needed ?

Does a statistical institute recruit trained statisticians? Well, yes it does. If it can find them. The situation varies from country to country.

Two NSIs, the *INSEE* in France and the INE in *Portugal*, have close ties with a faculty of statistics which supplies them with tailor-made statisticians. In France the ENSAE is the preferred source of recruitment for INSEE and the SSMs. In other countries it can be difficult to find qualified statisticians on the job market, in which case the preference goes to economists or computer scientists. In the *United Kingdom* there are two career paths, even : the Government Statistical Service and the Government Economic Service; statistics still recruits graduates from other disciplines, on condition that they have some grounding in mathematics : they then receive six months' intensive training in statistics.

The *CBS* takes the broader view. As it has to centralize all statistics, the Dutch institute takes the view that it needs specialists from a wide range of disciplines. Moreover, the trained mind is more important than training specifically in statistics, which is no more than a working tool, and is taught in special courses. For this reason the CBS employs graduates from no fewer than 37 disciplines, including linguists, historians, geographers, chemists, biologists, health services, and many others. The most frequently found specializations are economics (24%), sociology (16%), mathematics (13%) and economics (6%)

6.33 Methods of recruitment - Status

In most countries the NSI forms part of the civil service. this means that any new recruitment must have the approval of the supervising minister, and also of the ministry of finance, whose role is to ensure that the civil service does not exceed its budget. Three different régimes can apply - established civil servants, generally appointed for an unlimited period; government employees, and temporary staff recruited for full censuses.

In the highly decentralized British system, the CSO has considerable powers to coordinate : it centralizes recruitment for the whole of the statistical service, oversees careers and promotions, and organizes inter-departmental transfers. In France, some 500 senior INSEE staff are on secondment to the SSMs. In Italy, mobility between the various components of SISTAN remains to be implemented : it is currently encountering difficulties with differences in conditions of employment and acquired privileges.

Senior management : a few special features

There are two separate sets of terms of employment at *INSEE* : established officials and unestablished other staff. Established staff are recruited by competition; all have passed through the ENSAE; a distinction is made between attachés, who have completed four years of study, and administrators, who have completed more. The latter are frequently recruited on qualifications alone from the ranks of the Grandes écoles, or acquire further qualifications from the ENSAE. Unestablished staff are not recruited by competition, and are not graduates of ENSAE. They may be economists, sociologists, or have some other specialization, their rank is that of "Chargé de mission". Their promotion prospects are less attractive than those of established officials.

Since quite recently the staff of *ISTAT* enjoy the terms and conditions of the collective agreement on research activities; this has led to an increase in their earnings. Promotion is by competition. Technical and research staff are invariably recruited by external competition; only for a few administrative posts are competitions restricted to existing ISTAT staff.

In *Portugal* the law of 1989 gives the INE its own legal personality, together with administrative and financial independence. The result of this is that the staff are no longer civil servants, but are bound by a collective agreement negotiated with the management.

6.4 The overall budget for statistics

Having compared staffing, can we compare expenditure on statistics, and express it in terms of a common denominator such as percentage of GDP or expenditure in ECU per head of population ?

6.41 Methodological problems : finding a multiplier

Comparisons here are even more of a problem : uncertainty about absolute numbers of staff is compounded by a lack of data on expenditure on decentralized statistical services. Comparing the budgets of NSIs alone would be of little interest, because of the different degrees of decentralization. The procedure adopted has accordingly been to multiply the 1991 expenditure of the NSI (or the figures for the latest available year) by the ratio of total statistics staff to the staff of the NSI, to whom the budget figures relate. The multiplier thus arrived at is shown in Column 1 of the tables; the expenditure figures arrived at using the multiplier are shown in brackets after the figure for the NSI. For the sake of comparability, certain other adjustments should be made, e.g. deducting research and teaching activities in the case of France, deducting non-statistical administrative activities such as the management of the electoral roll in France and Germany, management of the business register in

ANNUAL EXPENSES a) OF NSI's b) OF THE TOTAL STATISTICAL SYSTEM

ANNUAL BUDGET									
MULTIPLIER (1)	MEMBER STATES	AS A % OF GOVERMENT CURRENT EXPENSE		AS A % OF GDP			PER CAPITA COST OF NSI (2)	PER CAPITA COST IN ECU	
	1	2a	2b	3a		3b	4	5a	5b
x 1,4	D 1989	0,06 (Sta Bu)		0,03	(Sta.Bu Länder)	(0,042)	11 DM	5,5	(7,7)
1,2	B	0,05	(0,06)	0,016		(0,019)	110 FB	2,6	(3,1)
(x1,5)	DK 1991	0,06		0,023		(0,034)	38 DKK	4,8	(7,2)
1,5	E 1991	0,10		0,032		(0,05)	305 Pesetas	2,4	(3,6)
x 1,5	F 1990	0,11		0,022		(0,033)	25 FF	3,6	(5,4)
	GR 1990	0,05			0,024		250 Dr	1,25	
x 1,2	IR 1988	0,07		0,03		(0,09)	2,1 £	2,7	(3,2)
x 2	I 1991	0,04		0,014		(0,03)	3500 Lires	2,3	(4,6)
1	L 1990	0,13			0,041		338 Flux	8	
1	NL 1990	0,12			0,05		15,5 Florins	6,7	
1,1	P 1991	0,11		0,05		(0,056)	356 Escudos	2,4	(2,7)
CSO x 4,5	UK 1991	0,02	(0,09)	0,006		(0,027)	0,56 £	0,8	(3,6)

(1) Multiplier = Estimated ratio of expenses for the total statistical system to expenses for the NSI, calculated on the basis of the ratio of staffs.
(2) In national currency

France and Denmark, etc. There are no figures with which to make these adjustments : help must be obtained from national experts to produce more comparable data.

Those reservations stated, this preliminary attempt at comparison has been accepted by all NSIs except Danmarks Statistik, which believes that further research is needed, and that a Working Party should be set up to examine the question.

6.42 Comparison of expenditure on statistics

Three categories of expenditure have been obtained :

1. The budgets of the NSIs, expressed as a percentage of the current account expenditure of the state. Multipliers have been used here only when it was seen to be significant, e.g. when all the statistical services concerned draw their resources from the central government budget. (In Germany the statistical offices of the Länder are financed from the Länder budgets.)

2. The budgets of the NSIs (and the national statistical systems) expressed as a percentage of GDP at market prices. This measure may seem more significant : central government budgets are affected to varying extents by the size of the national debt or by the financing of social security.

3. The per capita cost of the NSI and the national statistical system, expressed first in national currency, and then converted into Ecu at the exchange rate prevailing during the year under review.

The following *conclusions* can be drawn :

On average, expenditure on statistics represents around 0.1% of government current account expenditure, between 0.03 and 0.05% of GDP. The figures are higher in Luxembourg (miniature-scale statistics), the Netherlands and Portugal; lower in Italy, Denmark and France, and much lower in Greece and the United Kingdom.

Per capita expenditure on statistics shows wider dispersion, since per capita GDP also varies Broadly speaking, the countries which have the highest per capita GDP turn in per capita expenditure on statistics around 6-7 Ecu (8 Ecu in Germany and Luxembourg); Ireland and the southern European Member States have expenditure around half this. The United Kingdom is a special case, with apparently much lower expenditure on statistics than elsewhere.

6.5 Revenue from statistics

The cost of NSIs has traditionally been met from the public purse. A few Member States have recently attempted to make their NSIs less dependent on government finance, by giving them a measure of financial independence.

6.51 Comparative structure of revenue

The above table refers only to Central statistical offices - this is particularly important in the case of Germany, Italy, Spain and the United Kingdom - but gives some idea of the range of situations. The aim of this table is simply to indicate the orders of magnitude of revenue. It does not attempt to show that all NSIs in fact use their revenue to finance expenditure - that would only be possible in the case of total financial independence (See Para. 6.53). The fact that the table shows only one year may also explain the absence of certain forms of revenue - it might, for example, explain the very low levels of Community contributions in the cases of Greece and Italy.

In most countries the bulk of revenue come from government funds : income from publications accounts for less than 1% of income except in France and Denmark. Alongside publications, we must also distinguish income from services (indicating special research for certain business, public service, or academic clients).

Portugal and Denmark represent the two extremes. In Portugal, Community contributions represent a substantial part of revenue - between a quarter and a third from year to year - whilst there is an increasing tendency to develop the sale of services. In Denmark, sales of publications and services account for almost a quarter of the budget.

Community contributions are particularly high when the Community is helping develop or restructure a category of statistics, as in Ireland, Portugal and Greece.

Note finally that when an NSI enjoys financial independence, it may hold its own assets and receive income from capital, e.g. in the form of interest. The Italian law makes explicit provision for this; in Portugal, the Law on Statistics provides even that the INE may treat as income the penalties charged on recalcitrant business respondents.

Revenue of NSIs, 1990 or 1991 - percentages

in %

	B	DK	D	GR 1990	E 1990	F 1990	IRL 1990	IT 1990	L	NL 1990	P	UK CSO
Central Budget	98	*69,4*	98,8	99,8	90	93,2	84,5	97,8	92,2	96,6	*63*	
Community contributions	1	5,2	0,4	pm		0,4	13,5	1,5	6,4	0,4	32	?
Sale of publications	1	4,5	0,7	0,2	0,2	3,8	0,6		0,9	3,0	4,5	3
Sale of services	17,8	0,1			2,6	0,8	0,3			4,7		
Other		3,1					0,6	0,4			pm	
Rev. from assets												
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

6.52 Should income from sales be promoted ?

This is a fundamental issue in statistical policy. When an NSI has no legal personality, and is financed exclusively through the government budget, it has no incentive to promote sales. It may even hold the view that it is better to offer its publications and services for nothing : that, at least, ensures wide distribution, whilst a sales department means a costly accounting infrastructure.

In several countries the trend is nevertheless towards commercial marketing; this lightens the burden of Government financing, and can also motivate the NSI to seek resources which will then be its own to spend. This is happening in Denmark and Portugal. In the United Kingdom, the CSO's new status as agency also allows for income from sales, currently around 3% of the budget, to rise towards 10%.

Community contributions are a less regular and, in the long term, less predictable source of revenue. In principle they are intended to finance the start-up of new surveys. In most countries the contributions go straight from the Community to the state coffers, occasionally by way of the NSI's bank account; the only use they are to the NSI is as an argument when discussing the statistics budget with the minister of finance The Irish CSO believes that its finance minister would agree to the creation of new posts only if the Eurostat contribution were paid on a regular basis

6.53 Financial independence

Can an NSI use the revenue from its sales and the Community's contributions in order to finance its own expenditure ? Let us first make sure what the question means In every country, the various types of statistics revenue are listed amongst the receipts in the government's budget. Clearly, the statistics income is an argument to be used in the NSI's negotiations with the minister of finance during the early stages of budget preparation. On the other hand, the Inland Revenue has no right to use for its own purposes the tax it raises; in most countries the NSI cannot use its receipts either. In Germany, the Benelux trio, Greece and the United Kingdom, those receipts go into the general government budget.

A couple of countries are nevertheless experimenting by allowing their statistical offices the financial independence necessary to develop sales. In *Denmark* that independence is a feature of the general organization of statistics, and the government is encouraging Danmarks Statistik to develop sales, in order to lighten its own contribution to the cost of statistics.

In the *Netherlands*, the CBS disagrees. It has the right to use income from non-government sources to take on staff over complement, but it has no wish to develop revenue of this kind. The CBS has three reasons for not wishing to become dependent upon extra-budgetary sources of revenue : first, the sources can dry up, even when they are public bodies; secondly, the recruitment thus permitted also involves transaction costs; thirdly, the CBS wishes to remain master of its own work-programme.

New laws in *Spain* and *Italy* allow the NSI to treat as its own the income arising from its activities and from its assets, but for the present this has not passed the stage of a declaration of principle. In *France*, INSEE can use any Community contributions, and the product of any work performed to order; half the proceeds of publications goes to the state. INSEE would nevertheless like more flexibility in what it can do with this revenue.

6.6 The cost of producing statistics

Unlike the private sector, government departments are not generally in the habit of calculating the cost of producing the services they provide. However, the question of the cost of statistical work may arise for various reasons.

When Eurostat contributes to the financing of "European" surveys, the NSIs have to estimate the total cost of the work.

The problem is even more acute when an NSI which is financially independent tries to obtain funds by selling statistical services.

Finally, is it not good administrative practice to be aware of the real cost of censuses and surveys, in order to be able to decide how best to allocate resources ?

There is nowadays a tendency to calculate costs, and this has been made easier by the computerization of accounting. Proper accounts covering production costs require, however, a system for recording the number of hours of work on each project. Such a system has been organized primarily in those NSIs which wish to increase their resources, such as the Danish and the Portuguese, but also in those wishing to rationalize administrative aspects and reduce costs, such as the Netherlands' and the British.

In Portugal, the analytical accounting system in place since 1991 is based on daily records of work and monthly reports which have to be submitted by all sections. In the Netherlands, each official reports once a week on the time spent on each project, and this enables the CBS to calculate the number of hours spent on each of the roughly 500 projects on which it is working and to solve any problems of allocation which may arise when several sections are working together on a single project.

In the United Kingdom, the economy drive of Mrs Thatcher's government forced the GSS to calculate costs and try to improve productivity. But the price scales introduced at that time to take account of the cost of various types of officials have since gone by the board; production prices are now calculated in different ways by different departments.

Of course numerous problems of accounting technique arise when it comes to general costs, office rentals, etc. Calculations of production prices are generally not published and each country has its own methods. It would be useful to conduct an in-depth study of the methods applied, so that definitions and methods may be coordinated.

Improving productivity

We saw in Paragraph 6.22 that improvements in productivity arising from computerization, access to administrative registers, new dissemination processes etc. have been cited by several governments as reasons for a cut back in statistical staff. At least two NSIs have tried to measure such improvements. An internal study in February 1991 concentrated on changes in productivity in Danmarks Statistik between 1970 and 1990, and there was an attempt in 1990 to describe changes in productivity in the CBS, although there has not yet been any quantitative expression of productivity or production.

6.7 Auditing statistical accounts

The NSIs come under the general public accounting system and are therefore audited by the Court of Auditors (or its equivalent in other countries). Experiments in financial independence being carried out in some countries have not led to any changes in the system.

In Italy, however, a specific procedure has recently been introduced : the 1989 statistical law includes among the new ISTAT bodies the College of Auditors comprising three members appointed for three years: an official from the State Council, one executive official from the Presidency of the Council of Ministers and another from the Treasury Ministry. According to Article 19 of the Law, the College's remit is as follows :

> *The College of Auditors shall check that the accounts are kept regularly and that commitments undertaken correspond to the figures in the accounts and records; it shall check the results obtained against objectives; it shall examine supporting documents provided by ISTAT relating to any discrepancies. The members of the College shall be invited to ISTAT Council meetings.*

The reports of the College of Auditors and of the ISTAT President, together with a statement of its assets, financial results and administrative situation, are sent each year with the accounts for the previous financial year to the Presidency of the Council of Ministers.

6.8 Are the NSIs short of funds ? Work outstanding

Answers to this question vary considerably. As could be expected from an examination of the table on staffing, some NSIs seem to have very few problems whereas others maintain that they are suffering from staff shortages. The former category includes, in particular, France, the Netherlands, to a certain extent

Germany (where the planning of new work is delayed because of the principle of specific legislation) and, surprisingly, the United Kingdom. The CBS and the INSEE admit that staff cuts imposed by the government authorities have been offset by automation. In Denmark, on the other hand, these cuts have been so severe that some work has been affected, particularly statistics on health, the environment, services and labour costs; agricultural statistics have had to be cut back substantially.

In Portugal, the recent restructuring of the statistical system has solved the staffing problem. However, there is a shortage of qualified statisticians on the market, and this results in problems with the implementation of some new projects.

In the other NSIs, there is still work outstanding : in the smaller countries (Luxembourg and Ireland), where there are problems providing all the national accounts tables, balance of payment details, services statistics (Luxembourg) or business statistics (Ireland) and in Belgium, where there is a shortage of university graduates for design and study work. In Greece the shortage of qualified staff is responsible for delays in statistics and a complete lack of analysis.

The same reason can be given for delays in several types of statistics in Italy. In Spain, staff shortages are blamed for the continued use of traditional methods and problems getting new work off the ground.

7. INTERNAL ORGANIZATION AND COORDINATING BODIES

7.1 Types of organizational structure

The internal organization of the NSIs varies greatly. There is the classic administrative structure of the Belgian NSI, with four statistical directorates and two common services directorates providing administrative and logistical support; Denmark has a highly-concentrated system with three directorates only. At the other end of the scale, Greece has a very broad structure comprising no fewer than 15 directorates - at one time there were as many as 25.

Before looking in more detail at the organization of a few NSIs, we must start by considering the general factors underlying these structural differences.

7.11 Three structural factors

The NSI's organizational chart will depend first upon the three structural factors identified and examined in connection with the mission and degree of centralization of each NSI.

NSI or INSEE ?

INSEE houses an economic research department and a school of statistics. No other NSI has these in its organizational chart.

Functional centralization ?

There will inevitably be more slots in the organizational chart of a functionally centralized NSI than in a system where some statistics are compiled by the ministry statistical services. So in neither France nor the United Kingdon do we find in the central organization any department responsible for agricultural statistics, certain statistics of industry, or services, since these are collected by the respective ministry statistical services

Deconcentration ?

In the case of geographical decentralization, it can happen that most of the personnel are employed in regional offices, which have responsibility for implementation of surveys in the field. This applies in particular to France and, to a lesser extent, Germany

7.12 Broad or narrow-based structure ?

Is there an ideal number of directorates or major divisions ? In the interests of efficiency and coordination, most NSIs have aimed for a narrowish base of between three and six directorates. Clearly, coordination problems increase in direct proportion to the number of directorates, although it has to be remembered too that in the most concentrated systems the coordination problems will then be pushed one tier down the hierarchy, and felt within directorates or within divisions. Contrarywise, promotion prospects increase with the number of directorates. Allowing for the fact that in France the ENSAE is one of INSEE's seven directorates, only two countries have a structure broader than the three-to-six range : Germany (10 directorates) and Greece (15). The table below shows the number of directorates in each of the twelve central statistics offices, ignoring regional directorates :

Country	Number of directorates	Total staff
Belgium	6	885
Denmark	3	596
Germany	10	3.226
Greece	15	752
Spain	5	1.106
France	7 (incl. ENSAE)	2.035
Ireland	3	500
Italy	4 (3 directorates)	2 665 (central services plus services answerable to the Director-General)
Luxembourg	7 divisions	80
Netherlands	4	2.770
Portugal	(3) (Pres + 2 deputies)	692
United Kingdom (CSO)	4	1 050

7.13 Specific problems

Particular questions also arise. Is it better to have directorates or specialist divisions to handle common services, computing, national accounts, legal affairs, and methodology ?

In a "classic" organizational structure there is a "housekeeping" directorate of all shared administrative services : secretariat, budget, personnel, library, archives, etc.

In its early days, computing was also a centralized, common service. This was because of the costs of hardware and the scarcity of programmers and operators. It is now decentralizing towards the end users, leaving at the centre only the question of coordination, a problem which generally has no ideal solution.

National accounts were not always dealt with by the NSI in the early days. Nowadays, they tend to be the responsibility of a directorate, sometimes a division, in the NSI.

A handful of NSIs Belgium, Germany, the Netherlands have a small legal department, to deal with the problems which arise regarding statistical confidentiality, interpretation of the law on statistics, questions of contract (with Eurostat), and litigation (personnel matters, etc.); others have no legal office and rely on the government's legal service.

Methodology, finally, usually requires a nucleus of specialists for the more general questions of mathematics, sampling problems, classifications, etc. Methodological problems specific to individual statistics are the responsibility of the section concerned.

7.14 Comparison of organizational structures

Comparing the organizationsal structures of all twelve NSIs would involve a lengthy digression. The following comparison embraces two concentrated structures, Denmark and the Netherlands; one classic structure Belgium, and one wide-based structure Greece. France and Germany are also examined as specific cases.

Denmark

Danmarks Statistik has only three directorates, of respectively 5, 6 and 9 departments, making 20 departments in all. The three directorates are exclusively statistical : business statistics, general economic statistics and demographic statistics. National accounts, balance of payments, price statistics, business registers, and macro-economic models are dealt with by the general economic statistics directorate; methodology, planning, and EDP are under the wing of demography. Common services are decentralized, even the library and publications department. Computing is shared out amongst the directorates, although the demography directorate has a general methodology department : the research staff of the department can be consulted by the entire office.

Netherlands

The CBS is under the management of its director-general, plus one or more directors, one of whom is also deputy director-general. There are two statistical directorates and two logistics directorates, all known by their initials :

M = Methodology
E = Economic statistics
S = Social statistics
A = Administration

The two statistical directorates account for two thirds of staff; the economic statistics directorate alone for almost half.

The CBS has its own legal department. Three lawyers work in the Legal and international relations department; two more in Personnel. There are also lawyers in individual departments such as the Statistics of Justice department. the CBS has a total of 16 qualified lawyers.

The return of questionnaires is hastened by the existence of outside staff located throughout the country the external service (*buitendienst*). They are dependent on the appropriate departments, e.g. Statistics of distributive trades and services (E.3.); Statistics of industry (E.2.) or Statistics of employment and salaries (S.4.).

Directorate M has a specialist Department of statistical methods, but all departments are supposed also to develop their own methodology.

Belgium

This is the classic set-up : two logistics directorates (general affairs and computer centre) and four statistical directorates (national accounts, industrial, agricultural and social statistics, trade (both domestic and external), and a directorate responsible for the major censuses. In all there are 18 divisions, slightly fewer than in Denmark.

Greece

Here the organizational base is very wide : 15 directorates for almost 80 divisions. A number of reasons have been advanced to explain this fragmentation : the heterogeneous nature of different statistical tasks; the lack of qualifications amongst part of the staff, which prevents sections being brought together under a single director; staff promotion pressures. It does not simplify the Director-General's task of coordinating it all. The management board (Director-General plus directors) meets at least once a month.

Germany

The Federal Office comprises nine technical divisions and one central (i.e. administrative) division. In the wake of the unification of Germany, one division and a new research group, German Unity/Eastern Europe, were established in Berlin. The two form a single unit with the Berlin office of the Bundsamt, having a total staff of around 800.

Of the nine technical directorates, six produce statistics, a seventh establishes national accounts, and the last two have a common services role : general duties and programmes, and data processing.

In the Länder the statistical offices may be organized differently from the Bundesamt. This depends partly upon their duties, and also upon their size.

France

INSEE's head office comprises a secretariat-general, which includes the common services (45% of staff) and the six directorates. The organizational chart has several distinctive features :

- it includes two functions rarely found elsewhere : the school of statistics and the economic research department;

- two other directorates have a strong coordinating role : the Directorate for statistical coordination and international relations, and the Directorate for regional measures and publications. This is the result of the high degree of operational and geographical decentralization which is a feature of French statistics;

- two directorates, finally, are essentially concerned with statistical work : economic statistics, and social and demographic statistics. Even here, though, the former has certain general coordination tasks (directories and business statistics), since most statistical work is decentralized.

7.2 Higher council on Statistics

7.21 Historical background

It is to Belgium (1841) and the Netherlands (1826) that we owe the forerunners of these institutions. Quételet established the Belgian *Commission Centrale de la Statistique* in 1841, with the task of coordinating statistical work in the public service. In most countries the corresponding council was not established until the twentieth century, and in some cases it is very recent indeed : 1986 in the case of Ireland, and 1992 in the United Kingdom. Generally, the higher council is a consultative body bringing together suppliers and users of data, which gives its opinion on proposed surveys, and on the general statistical programme. It also has the task of coordinating the statistical system. The higher councils of the various Member States differ in membership, tasks and influence.

It may be noted in passing that the Italian Higher Council on Statistics, founded in 1926, was abolished in 1989, its functions taken over by three separate bodies : the Statistical Coordination and Guidance Committee, the ISTAT board, and the Commission for the Guarantee of Statistical Data.

7.22 Statutory basis

The higher councils were founded with the Law on Statistics, except of course in the case of the United Kingdom, where there is no such Act. The most ancient of these laws still in force is the Netherlands Royal Decree of 9 January 1899, which established both the CBS and the Central Statistics Commission, two bodies which are indissolubly linked. Almost a century later, this arrangement is echoed in the Portuguese law of 1989 which states that the national statistical system comprises the Higher Council on Statistics and the INE.

As a rule some executive order is required before the declared intent to establish a council, enshrined in the law, is actually implemented. In two countries this order is still awaited : in Greece, where the National Council on Statistics, provided for in the 1988 law, and in Ireland, where the National Statistics Board provided for in the Act of 1926, have still not been established, although the latter began work in 1986 on a temporary and unofficial basis.

The singular legal situation of the United Kingdom also requires mention. The agency status granted to the CSO in late 1991 authorizes the Director to appoint an Advisory Council with the task of seeking the opinions of data users and suppliers. This council was appointed in July 1992

7.23 Mission

As conceived in the nineteenth century, the Higher Council on Statistics is a coordinating body bringing together the driving forces of the profession in the preparation of a programme of statistical work. Who, then, are those driving forces? First, the respondents themselves, who must complete the questionnaires. That means businesses : farms, industry and services. Next, the users of statistics : businesses and other private-sector *milieux*, universities, research departments, and lastly the public sector, which both produces and uses statistics, and whose statistical work must be coordinated.

Although the Council is essentially an advisory body, it may on occasion take some decision-making role. This is in particular the case in the Netherlands, where the annual statistical programme must be approved by the Central Statistical Commission; the same applies in Denmark.

Although the mission of the Council is defined in fairly general terms, it is possible to distinguish between the

countries where consultation is more *ad hoc*, with the Council's opinion being sought on individual survey proposals (Belgium, Germany) and those where the Council must deliver an opinion on the annual programme in particular (and sometimes a longer-term programme) : Denmark, Spain, France, Luxembourg, Netherlands, Portugal.

Ireland's National Statistics Board, established provisionally in 1986, falls outside this pattern : its role so far has been the strategic guidance of the national statistical system.

The many sides of the Higher council's work are reflected in the fact that Italy's erstwhile Council was replaced in 1989 by three separate bodies. These are the ISTAT Board, which plans, guides and monitors the activity of the Institute, the Statistical Guidance and Coordination Committee, which issues binding directives to coordinate the activities of the component statistical offices of SISTAN, and the Commission for the Guarantee of Statistical Data, which monitors the impartiality and quality of data.

HIGHER COUNCIL ON STATISTICS IN THE TWELVE MEMBER STATES

	NAME OF COUNCIL	PRESIDENT	NUMBER OF MEMBERS	LENGTH OF MANDATE
B	Conseil Supérieur de Statistique	Professor	(30)	4 years
DK	Board of Governors	DGINS	7	4 years
D	Statistischer Beirat	DGINS	> 60	
GR	National Statistical Council	DGINS	25	
E	Higher Council on Statistics	Minister	(Nombreux)	
F	Conseil National de l'Information Statistique	Minister (+ DGINS)	170	3 years
IR	National Statistics Board	Professor	8	temporary
I	Guidance Committee ISTAT Board Data Guarantee Commission	DGINS DGINS Professor	22 11 9	4 years 4 years 6 years
L	Conseil Consultatif Sup.	DGINS	(30)	4 years
NL	Central Statistical Commission	(Former minister)	(50)	6 years
P	Higher Council on Statistics	Minister	25	3 years
UK	Statistical Advisory Committee	DGINS	20	not known

The presiding minister is the supervising minister

Finally, attention should be drawn to one particularity of the French system. Under the wing of the CNIS are two further arbitration bodies : the Committee on Statistical Enquiry Appeals and the Committe on Statistical Confidentiality, responsible respectively for determining administrative penalties imposed upon recalcitrant respondents, and for examining problems arising from the implementation of the rules on confidentiality, in particular special access to individual data on businesses occasionally allowed to certain ministries.

7.24 Membership

Broadly speaking, a Higher Council is composed of members from four categories :

- representatives of private-sector data-supplies (agriculture, industry and services);
- representatives of public-sector data-suppliers (ministries and departments);
- employees trande unions (blue-collar, white-collar and civil service);
- others specialist economists and statisticians, representatives of regions or other territorial subdivisions; possibly a member of the Data Protection authority, etc.

The head of the NSI is in every case an *ex officio* member of the Council.

Appointment of Council members raises two conflicting requirements. First, the "driving forces" of the nation must be involved in statistics, as must all those with an interest suppliers and users of data; at the same time, the interests of efficiency dictate that the Council must not be too big. Three answers are found within the Community.

1. **Very restricted membership**

The Danish Board of Governors comprises only seven members, who must be "familiar with economic and social conditions". The same applies in Ireland, where the eight members of the National Statistics Board represent the principal interests concerned : agriculture, industry, services, universities, research, government. This means that every member must apply himself fully not only in regular attendance at meetings, but in contributing to the Board's work.

2. **Middle-sized councils**

In most Member States the Council comprises between 20 and 30 members (United Kingdom 20, Greece, Netherlands and Portugal 25, Belgium and Luxembourg around 30). The main problem here is the representation of the civil service since, in order to draw on administrative sources of data, statistics must have connections with many branches of the public service.

3. **Large-scale councils**

This is why certain councils have a very large number of members : more than 60 in Germany; 170 in France, 25% of whom represent departments, 50% represent businesses and trade unions, and the remaining 25% represent sundry other institutions. Here, nevertheless, the Council meets in plenary session only once or twice a year, most of its work being done in committee.

7.25 President of the Council

The debates of a higher council on statistics are of necessity highly technical, and assume thorough familiarity with the problems of official statistics. For this reason it may be seen a good idea to have the head of the NSI as the President of the Council. That is the most frequent situation, found in Denmark, Germany, Greece, Luxembourg and the United Kingdom.

Certain countries (Spain, France, Portugal) add lustre to the Council's prestige by having the Minister of the Economy as its president, though this is not an entirely practical solution, and the Minister is able to send the head of the Statistical Office as his representative. In Luxembourg the original regulation appointing the Minister has been amended to appoint the Director of STATEC as President of the Council.

The last possibility is to appoint an outsider or an expert. In Belgium and Ireland the Council is chaired by a university professor; in the Netherlands by a retired cabinet minister.

7.26 The role of the Higher Council

Do the members of the Council have the time to prepare and attend meetings regularly? Do they have a broad enough view of the problems of statistics?

A number of countries have too little experience of their council for an opinion yet to be formed (Spain, Greece, Italy, Portugal, United Kingdom); elsewhere opinions are favourable, except in Luxembourg, where the council has not hitherto played any notable role.

Most members, of course, have a view of only a small part of the problems facing statistics; this is one reason why the council may include experts on statistics and economics. For this reason, too, the very restricted councils comsisting mainly of experts (Denmark, Ireland) may be seen as more efficient in the formulation of a programme of work. But it has the

disadvantage of not covering all the *milieux* concerned, for the council also has the task of coordinating the national statistical system, and it should be helping the NSI to win the support of data suppliers.

Except in Denmark and the Netherlands, where its approval is required for the implementation of the statistical programme, the Council has only an advisory role.

It was pointed out earlier that the main thrust of the higher council's work varies from country to country : in Belgium and Germany it gives its opinion on individual surveys, in Ireland it considers the strategic medium-term plan, and elsewhere it discusses the annual (and any longer-term) plans.

Finally, the very existence of the Council obliges the NSI to draw up an annual report on its activities and programmes, as well as wide-ranging documentation on individual proposed surveys.

7.27 Remuneration

Whether the members of the Higher Council on Statistics should be paid or not receives a full range of answers across the Community, from Portugal (amongst others), where the remuneration may be regarded as an incentive to work, through Luxembourg, where the remuneration is symbolic, to Germany, where the appointment itself is already something in the nature of a distinction.

Objectively, the last two would seem to be the correct answers when membership of the Council forms part of the duties of a public servant or the representative of a professional or trade association, and that an appropriate fee should be paid when the member is an expert not otherwise being paid for his time and effort.

7.3 Geographical coordination

There is no problem, of course, in countries where statistics is not decentralized geographically : Denmark, Ireland, Luxembourg, the Netherlands and the United Kingdom. For the others, distinctions must be drawn between the various types of decentralization.

7.31 Regional decentralization

When the regional offices enjoy no independence (except as regards a limited amount of work of purely regional interest) they are effectively working on instructions from head office. This is the case in Belgium, Greece, France and Portugal, and also in Spain and Italy, at least as regards the provincial offices of the NSI But not as regards the statistical offices of the regions in these two countries. As a rule coordination meetings are held at NSI head office several times a year.

In France, INSEE is responsible for coordination of work through its "Work planning and monitoring" division (*Plan de charge et suivi des travaux*), which draws up an annual programme of work for each regional directorate.

7.32 The position in a federal state

This is the case for the Federal Republic of Germany.

First, let it be noted that the Statistischer Beirat includes representatives of the statistical offices of each of the Länder.

Coordination within the Beirat is not unlike that within Eurostat. Three "DGINS" conferences are held each year, being the conferences of the presidents of the statistical offices of the Länder and of the Bundesamt, the latter chairing just one meeting a year, that held in Wiesbaden. He is, in effect, only the first amongst equals. In addition, meetings of some forty working parties bring together the specialists from the regions and the Bundesamt.

In addition, a number of federal ministries have established committees to examine surveys relating to their work, jointly with the corresponding ministries of the Länder.

7.33 The position in a system of autonomous regions

This is the case of Spain in particular, and also, to a lesser extent, Italy. The two countries have a dual structure, with regional offices of the NSI (see 7.31) existing alongside the statistical offices of the autonomous regions.

In Spain, cooperation between the national and the regional offices is complex since the INE has no statutory pre-eminence vis-à-vis the statistical offices of the autonomous communities. The 1989 Law on Statistics established an interterritorial joint committee, comprising representatives of the INE and of the regions' statistical offices, and chaired by the president of the INE, with the task of ensuring cooperation and the smooth working of statistics between the central state and the autonomous communities.

In addition, Article 44 of the Law states :

Furthermore, the INE shall periodically organize meetings with representatives of the Associaltion of local authorities, with a view to examining the the problems and proposing forms of cooperation. A report

of these proceedings shall be made to the Interterritorial statistical committee and to the the Higher Council on Statistics.

Coordination in Italy is a matter for the Statistical Guidance and Coordination Committee, which has various regulatory powers, and issues directives addressed to SISTAN'S many component bodies.

7.4 Other coordinating bodies

Coordination of public-sector statistical works can also be arrived at in other fora both official and unofficial.

The official include :

- The French National Committee on Classifications (*Commission nationale des nomenclatures*)
- the French Committee on the Accounts of the Nation (*Commission des Comptes de la Nation*)
- the French and Belgian Committees on the simplification of administrative procedures (respectively COSIFORM and COMFORM)
- the Spanish Interministerial Statistical Committee, and the Italian Commission for the Coordination of Public Sector Statistics (CIPE).

In addition, *ad hoc* working parties and bilateral relations are invaluable.

In the United Kingdom, where the Council has existed only since 1992, there exist some 32 advisory bodies at the level of the CSO and the statistics departments of ministries, with the task of advising the GSS. Two Committees, on cooperation with the Community and on international cooperation, are chaired by the Director of the CSO.

In Denmark, too, there are a score of specialist advisory committees. Their role can be seen as all the more important in a country where the Board of Governors comprises only eight members.

8. STATISTICAL PROGRAMMES

8.1 Who has an annual statistical programme ?

The previous chapter showed that the Higher Council on Statistics is frequently the forum for discussion of the programme of statistical work. But not always. Belgium has not had a programme for many years. In Germany the question has to be looked at in the light of the fact that any new inquiry must follow a lengthy parliamentary procedure for approval; in effect the programme can go no further than work in progress and new surveys approved in law. Ireland has a five-year programme established by the National Board, but no annual programme in the usual sense of a list of jobs to be done.

Programming is essentially a matter for the seven countries in which an annual programme (including any new work) must be submitted to the Higher Council on Statistics : Denmark, Spain, France, Italy, Luxembourg, the Netherlands and Portugal. Spain France and Italy are special in that the plan then takes the form of a legal instrument : a Royal Decree in Spain, a Ministerial order in France, and a Presidential Decree in Italy. In the United Kingdom's decentralized scheme of things, each department has its own programme, whilst at the CSO the new Agency status, introduced in 1991, brings in a new element : the Director must prepare a rolling three-year strategic plan, i.e. one which is updated every year, submitted to the government for approval and then published.

In several countries annual programming fits into a scheme of medium-term planning : over four years in Spain, Greece and Portugal; three years in Italy and the United Kingdom. However, it must not be overlooked that these Member States' programmes are increasingly being dominated by the Eurostat programme which initially covered four years (1989-92) and now covers five (1993-97).

Lastly, when a programme is submitted to the higher council, it is often accompanied by a report on the activities of the past year. The United Kingdom has fairly strict rules on this : the Director of the CSO must submit to the Cabinet in the two months following the end of the financial year (31 March) and no later than July 1993 in the first instance, a detailed report of the results achieved, the obstacles encountered and the measures taken in consequence, together with a general appraisal of the year's performance.

8.2 Periodicity and timetable

8.21 Annual programmes

Given the range of options on planning chosen by the Member States, it is hardly surprising that their programming timetables (when they exist) differ too.

In Denmark, where statistics is based on administrative registers and is thus fundamentally different from classic survey-based statistics, the programme is prepared in the Autumn, approved by the Board of Governors before Christmas, and ready in January.

In Greece, the programme is drafted in the middle of year n-1, alongside the draft budget for the statistical service.

This relationship with the drat budget is naturally a constraint. In the Netherlands, where the annual programme as approved by the Central Statistical Commission is ready twelve months early (in order to allow the necessary time for surveys to be prepared), it can happen that last-minute cuts are imposed for budgetary reasons. In Luxembourg the plan is prepared only at the close of year n-1, and discussion in the Higher Council takes place during the year.

In Italy, the ISTAT Board must before 30 April of each year reach a decision on the budget forecasts of income and expenditure on statistics for the next three years, and on the annual plan for implementation of the national statistical plan.

Portugal and France extend preparation of the plan across the full year. In Portugal planing begins in the Autumn of year n-2, and the draft plan is submitted to the Higher Council in June of year n-1

In France the CNIS asks all ministries in January to submit by the beginning of March their draft proposals for survey programmes for the following year. The draft proposals are discussed in April/May, and the CNIS delivers its verdict at the end of June. It is on the strength of that verdict that final inquiry proposals are submitted to the CNIS for October. The programme of compulsory surveys is then published in the Official Gazette, the *Journal Officiel de la République française*, during January of year n.

8.22 Medium-term programming

The Eurostat five-year programme is a fact of life for all twelve Member States. It inevitably brings in its wake reflection on the medium-term development of statistics.

Unfortunately, we are still some way from harmonized methods or a harmonized calendar.

In Germany, the programme assumes the form of a document for internal use only, the *Forschungs- und Entwicklungsplan des Statistisches Bundesamtes*; this is a five year plan, after a fashion, which lists all projects and indicates the priority of each.

In Greece the Methodology and Programmes division of the GNSO has responsibility for drawing up the annual and medium-term programmes (the duration of "medium-term" is nowhere defined) to cover both national requirements and the obligations arising from international collaboration.

However, formal medium-term planning can be found in barely half the Member Stat s. In Spain the statistical plan is for four years, assuming the form of phased annual plans, implemented by Royal decree. A similar situation exists in Italy, where the SISTAN programme covers three years.

In Ireland the National Statistics Board draws up a five year "Strategy for Statistics" (1988-92; 1993-97). Half-way through each year, the Board then publishes a report on progress implementing the programme, "*Implementation of Strategy for Statistics*".

In the United Kingdom, all departments draw up simultaneously their programme of work for the coming year, with an outline programme for the next three years. At the CSO itself, its newly-acquired agency status requires its Director to prepare a rolling three-year strategic programme, which is submitted to the government for approval and then published.

France, finally, has five-year plans, discussed within the CNIS, which are now in step with the timetabling of the Eurostat programme.

8.3 Planning and decision-making procedures

The fundamental problem in drawing up a statistical programme is to ensure that it takes account of all the needs for statistics. In theory, four separate sources of need can be distinguished :

- the statutory duties of the NSI;
- demand from the public sector (government, ministries, other public services);
- demand from the private sector (business, research establishments, consumers, etc.);
- Eurostat and international commitments.

The last of these occupies a rather special situation. As a rule European surveys are the subject of regulations or directives, and consequently legally binding. The programme of work itself is the subject of between one and three planning meetings each year at Eurostat, according to the volume of work. Meanwhile, the NSI's government, as supervising authority and supplier of funds, often qualifies its needs as "political priorities" leaving the NSI little option in the matter. The NSI's room for manoeuvre is in fact restricted, and limited to trade-offs between the other two areas of demand. This highlights the importance of the higher council on statistics as a body which is representative of all supplies and users of data or, in the case of the United Kingdom and Denmark, the inter-departmental committees. There remain the special cases of the NSIs which enjoy financial independence and are encouraged by their governments to raise funds by selling their services (Denmark and Portugal in particular) : here marketing strategy becomes a decisive element in the programme.

When resources are limited, who decides which demands shall be met ?

In certain countries this decision is for the head of the NSI : Germany, Greece, Luxembourg. In others it is for the higher council on statistics : Denmark, Spain, Netherlands, Portugal, and Italy with its three governing bodies. In France, it is the Director-General of INSEE who decides on INSEE matters, the CNIS which decides on the general statistical programme.

A distinction must still be drawn between theory and practice. The Director-General's familiarity with the issues means that he is frequently able to influence any discussion with decisive results.

There remains the special case of the British "Government Statistical Service" which works mainly at the orders of the government of the day. Here, statistical priorities are determined within departments or, where appropriate, by inter-departmental consultation. There is no general programming and bargaining as in a centralized system, and within each department, the final word belongs with the Minister, who approves the programme.

8.4 The programme as law

Is the statistical programme legally enforceable, or doe it represent no more than a recommendation or a statement of intent?

First, a distinction must be drawn between medium-term programmes, which are without exception outline

programmes, and the annual programme, which may, in theory at least, be "compulsory".

It must be remembered, too, that the European statistical programme is compulsory, in so far as the surveys to prescribes are in the form of Regulations, Directives or Decisions. In comparison, the demands made by a government are compelling in a more political sense.

The rest of the programme

Germany is a case apart, since its statistical programme is similar in nature to the European programme : it comprises only surveys which have been approved by specific laws. Spain has recently embarked in the same direction, with the implicit result that one day (unless some other solution is found), despite approval by Royal decree of the of statistical programme, the individual surveys which together make up the programme will have to be enshrined one by one in law. In Italy, too, the compulsory nature of the plan is no more than theoretical, given that there are no penalties with which to sanction failure to implement it.

France's the statistical programme is approved by ministerial degree; it is assumed not to be legally enforceable, but it is in fact implemented, at least as far as the INSEE part is concerned. Furthermore, inclusion in the programme is the hallmark of whether a survey carries the requirement to respond.

In the Netherlands, CBS has a duty to implement the annual programme, at least in the eyes of the Central Statistical Commission, which approves the programme.

In the United Kingdom plans are outlines only, but there is one innovation in the CSO's new agency status : a fairly strict annual review of achievements, for which the Director is answerable.

At the same time, two circumstances may prevent the full implementation of even a compulsory survey.

The first is a lack of resources, whether expected or not. The second is respondents' hostility or refusal to cooperate. The most notable examples of the latter are the failed censuses of the population in Germany (1981) and the Netherlands (1981, 1991). In the latter case this resulted in the repealing of the census law of 9 July 1970.

9. STATISTICS AND THE COMPUTER

9.0 Characteristics of computer equipment

A separate study would be needed to examine in detail the characteristics of computer equipment and its effect on statistical organization. We shall limit ourselves here to a few general observations.

NSIs nowadays have one or more mainframe computers (or a number of separate systems where statistics are decentralized), a group of mini-computers and a very large number of micros. Almost all workstations are equipped with a terminal and most of them have a networked PC.

While to start with computer equipment was centralized, to the extent that in the very small Member States it was possible to have a computer centre shared by a number of government departments, in the late 1970s and early 1980s the advances in micro-computing led to extreme decentralization, which poses problems of coordination within the NSI. Attempts are made to solve this problem by appointing a computer coordinator or setting up a central computerization department. Developments in computing also lead to certain adjustments to the organization chart. At the same time, however, this decentralization can be regarded as a forward-looking factor, since all the departments of an NSI are called on to contribute to the development.

9.1 Uses of computing within the NSIs

Nowadays computing is involved at all levels of statistical work : data collection, analysis, dissemination, office automation and access to administrative data.

In general terms it can be said that the consequences of computerizing statistics fall into four categories :

1. Firstly increased productivity, which is difficult to quantify but very substantial, to the extent that a number of governments have used it as an argument for imposing a reduction in staff numbers in the statistical office (cf. Chapter 6 above : Denmark, France, Netherlands etc.).

2. Improvement in the quality of statistics through the introduction of automatic checks and the development of expert systems.

3. Possibilities of rationalizing the organization of statistics through the introduction of national identification numbers for persons, companies etc., the creation and use for statistical purposes of files or directories and generalized access to administrative data.

4. Lastly, a popular reaction of mistrust towards computer networks used for administrative and statistical purposes, which is behind the introduction of special laws on the protection of privacy (cf. 9.5 below).

Computing thus has an outstanding role to play in statistics today, which has led a number of NSIs to systematize developments in this field through the establishment of multi-annual computerization plans (Netherlands 1986-1990, 1991-1995 etc.).

9.11 Computerization of data collection

Although collection is the least computerized phase of statistical work, there are a large number of experiments under way using portable computers, particularly in surveys of households (family budgets, labour force etc.). The major censuses, however, are still carried out using conventional questionnaires - experiments with optical character readers have often given disappointing results.

9.12 Analysis - tabulation - error detection

The analysis of nearly all statistical work is nowadays computerized. Two developments are connected with this trend.

Computerization contributes to improving the quality of information thanks to automatic checks handled by the computer : checks on completeness, logical compatibility checks, plausibility checks by means of ratios. Expert systems have been developed (e.g. the CBS's BLAISE system) to systematize these procedures.

Secondly, while the computer has made it easier to produce very detailed tables, this leads to a danger of accidental identification of individual situations, thus violating statistical secrecy. Some very thorough research has been carried out, particularly at the CBS and in Germany (Prof. Müller, University of Mannheim) to develop techniques for preventing accidental identification.

9.13 Dissemination of information by electronic means.

The electronic dissemination of information is developing rapidly and constantly moving into new areas. At present the following points can be made :

1. Despite the progress in computerized dissemination, the days of conventional paper publications, particularly statistical yearbooks, do not seem to be numbered.

Despite their lateness and their cost, these bulky publications still have the advantage of ease and speed of consultation. In general, the statistical yearbook is anyway not accessible as an on-line database.

2. All the NSIs use diskettes and magnetic tape for transmitting information requested by users; sometimes use is also made of microfiche and microfilm. It is possible in this way to market computer files containing statistical tables obtained from censuses and surveys. These sales of statistical services constitute a major source of revenue in certain countries (Denmark, Portugal), as do subscriptions for database consultation.

The use of CD-ROM is under consideration, but it is still fairly unusual for this to be in operation.

3. Access to the NSIs' databases is becoming more widespread. This practice calls for the following comments, however :

a. In certain countries on-line dissemination is as yet only available to the departments of the NSI and Eurostat (Belgium, Greece) or to certain public bodies (Ireland, Spain etc.) or to "bona fide" researchers (United Kingdom).

b. A database can also be used for dissemination to the general public. The INSEE thus uses the possibilities of the Minitel system to offer the public at large a very easy-access service statistical information service. A similar experiment is under way in the Netherlands and Luxembourg, using post-office networks.

c. In the Netherlands on-line consultation is still not allowed for persons outside the CBS. This is for reasons of security : since the CBS computer system forms a single network, experts with access to one point in the system could get at other points. There is also the fear of a psychological effect, since any violation of secrecy by outside experts would shake public confidence. On-line consultation will therefore only be possible when there is a separate computer for storing information intended for the public.

9.14 Access to administrative data

Lastly, it is only thanks to computerisation that it is possible to give effect to the requirement that the NSIs cut down the burden of surveys by means of more systematic use of administrative data. This question is examined below.

9.2 Are there national identification numbers ?

In the late 1960s the idea came up of giving each citizen a single identification number for use in all relations with government departments. This could, for example, be the social security number made up of the date of birth and a serial number. Following on from this, similar identifiers were defined for businesses, buildings etc., thus creating - at the same time as a system for rationalizing public administration - the foundations of an integrated system of statistical documentation with the identification number forming the reference point for linking information held by various departments on each individual or business.

The Nordic countries succeeded in putting this into practice. Elsewhere, however, this development was overtaken by a hostile reaction to full exploitation of the possibilities of computerization, under the banner of protection of privacy or protection of personal data in computer systems. We are thus faced today with fundamental differences between statistical systems : the use of single identifiers for individuals (and for businesses etc.), which constitutes the very basis of statistical organization in Denmark, is prohibited by law in other countries, and even by the constitution in Germany and Portugal; in the absence of any formal prohibition it is regarded as a threat to privacy in the Netherlands. Let us look more closely at the situation country by country, starting with Denmark, where the system has been brought to perfection.

LIST OF DATABASES ACCESSIBLE ON-LINE

COUN-TRY	DATABASE		NOTES
B	DB Géo DB Chro	Regional data Time series	internal
DK	ABBA DSTB ESDB KSDB	Labour market statistics Time series Business statistics Info. on 275 municipalities	public access
D	STATIS-BUND	Statistical data + + processing programmes	public access
GR		Indices for Eurostat	
E	TEMPUS	Time series	experimental
F	BDM BDL SPHINX Videotex	Macro-economic databases Local databases Documentary system Stat. info. for general public	public access
IRL	EOLAS		government dept.
I			
L	(Videotex)	Pocket-size stat. yearbook	general public
NL			
P	BDS	under consideration	businesses, government dept. researchers
UK	(CSO) NOMIS (Dept. of Employment)	14.000 series Employment data	bona fide researchers

9.21 National identification numbers

In 1968 and 1977 the Danish legislature created three identification numbers, which are used in all public (and sometimes even in private) databases :

- the personal identification number, based on a ten-digit number assignedd at birth or on taking up final residence in the case of immigration; the number incorporates information on age and sex, while the directory also contains name and address, marital status, nationality, place of birth etc.;

- the central register of enterprises and local units, managed by Danmarks Statistik, gives for each enterprise the number of local units with their activities and size class, together with the personal number in the case of sole proprietors; from 1993 this register will use the NACE;

- lastly, a register of buildings and administrative units, used in particular for property taxation and applying building regulations; the identification number and the register show the size of dwellings, their use, the number of rooms, amenities etc.

By means of these three identification numbers it is possible to link information on individuals, their places of work and their accommodation.

Only three other countries - Belgium, France and Luxembourg - have a single system of identifiers. In the other eight countries there is no single identification system.

In Belgium, the National Register assigns the personal identification number, which is made up of the date of birth and a check figure. The Register contains certain information, as in Denmark. All public highways have also been codified. For businesses, on the other hand, assigning identification numbers has no legal basis and there are two numbers (fiscal and social) which the NSI is able to correlate.

In France it is the INSEE itself which manages the central directory of persons and enterprises. The Répertoire National d'Identification des Personnes Physiques (RNIPP) is not a file since it contains little information; on the other hand, it is used mainly by the Social Security Department, since the CNIL (Commission Nationale Informatique et Libertés) takes a restrictive stance in the procedure for authorizing (by decree) uses of the number for administrative purposes. Government departments have more freedom with regard to using the directory of enterprises and local units managed by the INSEE as part of SIRENE (Système Informatique pour le Répertoire des Entreprises et des Etablissements) : each enterprise or local unit is assigned a single invariable identification number which serves as a common point of reference for government departments. This identification number is associated with a number of items of information on the unit : name or corporate name, address, economic activity, legal status, number of employees.

In Luxembourg, the Law of 13 March 1979 on the numerical identification of natural and legal persons created a system of national identification numbers for general administrative purposes. It is the Centre Informatique de l'Etat (CIE) which is responsible for managing the register. The identification numbers consist of 11 digits comprising, for natural persons, the date of birth, sex, a serial number and a check digit, and for businesses the year of establishment, the legal form, a serial number and a check digit. STATEC makes use of the directory of natural persons, which constitutes an ongoing mini-census of the population. The directory of legal persons is used to update STATEC's directory of enterprises, which is the basic tool for the system of business surveys.

9.22 Countries without national identification numbers

In the eight other countries the statistical services can create personal identification numbers for their own purposes, but there are no national identification numbers for general administrative purposes. From the point of view of statistics this situation has three disadvantages :

- each administrative department has its own numbering system;
- the identifiers used are often not structured (as they are when the number contains the date of birth and the sex);
- lastly, the most serious disadvantage is that these numbers generally do not cover the whole population but only the individuals who have dealings with a particular department.

In addition, the numbers used for businesses do not always make the distinction between enterprise and local unit.

In Germany and Portugal the creation of a single personal identification number is prohibited by the constitution, which regards it as a threat to freedom. In the Netherlands there is the additional aspect of the attitude of the municipalities, which jealously guard their autonomy and are opposed to the creation of a central register; it is the municipalities which keep the population registers, for which they use random numbers.

The same consideration of protecting freedoms obviously does not apply to businesses, except for sole proprietorships. Thus Portugal has an identification number for legal persons (NIPC) which in principle covers all businesses.

There are also no national identification numbers for buildings, public highways or other variables, apart from cadaster numbers.

9.3 Use of files or registers for statistical purposes

This question is connected with the previous one. There is thus the same distinction between countries with national registers which can be used by various departments and countries with registers which are purely internal to each department. In the countries in the first group the registers of identification numbers are often small directories in that they contain certain items of information on the unit identified, and they thus constitute ongoing mini-censuses.

For all the NSIs the constitution of directories, and particularly of a directory of businesses, has been a priority in the last few years. A business register is needed above all for launching censuses and surveys, extracting samples, providing information on businesses, studying the demography of businesses, using administrative data for statistical purposes and so on.

Particular mention must be made of the Danish system, where the computerized administrative directories have two special features :

- all the registers use the same identification numbers;
- Danmarks Statistik uses the administrative registers to obtain statistical registers which contain only statistically useful data (excluding name and address, but including the identification number).

There are more than fifty of these registers, which are generally updated on a quarterly basis.

In France it is the INSEE itself which manages the central directories of persons and businesses; this simplifies the administrative procedures and is of benefit to all departments which have large files to manage.

How is the business directory constituted in other countries ?

In Luxembourg and in Belgium it is the national directory which supplies periodical updates through the statistical service, which inserts the NACE as an additional identifier.

In other countries the sources for the directory are both statistical (the major censuses) and to a certain extent administrative. In Germany certain laws on particular statistics allow the Statistisches Bundesamt to have access to administrative registers. In some countries the statistics department has access to social-security and VAT files.

9.4 Computerization and administrative statistics

Originally statistics were above all administrative. It was the generalization of censuses and surveys which made statistics which they are today. Now there is a move to go back to administrative statistics, both in order to reduce the burden of surveys and because government departments have treasure houses of information waiting to be exploited. While these treasure houses are attractive, however, access to administrative files does not resolve all statistical problems. Resorting to administrative statistics is even a step backwards as regards the harmonization of definitions - unless there was prior harmonization of all administrative definitions!

In a highly decentralized statistical system such as that in the United Kingdom the problem of access to administrative data is relatively easy to resolve, since by definition each department draws up its own statistics. There are nonetheless questions of principle regarding access to administrative data, particularly as regards overall coordination and the possible linking of data.

In a centralized system, on the other hand, using these data poses major technical and legal problems. In principle there are two possible solutions. The simple solution would be to give each government department the task of drawing up its own statistics as laid down in a general statistical plan. This solution is not entirely satisfactory, however, since departments will often not be prepared to accept this burden, which is foreign to their main function, and moreover there is no possibility of linking data.

This leaves the possibility of direct access by the NSI to administrative data, which raises first of all a legal question : what right does the NSI have to demand such access? In certain countries the answer would be that it is by virtue of the general obligation to provide information written into the law on statistics, since if the government obliges private individuals to reply to surveys it must a fortiori impose this obligation on its own departments. This is the interpretation adopted by the government in Luxembourg. The new laws on statistics in Spain and Portugal also take this line. In

France a law passed in 1986 introduced a major change to the law on statistics by stipulating that administrative files had a statistical function. The German law on statistics (Section 8) provides for the Statistisches Bundesamt to be given the task of exploiting administrative data for statistical purposes, but the statistics compiled on the basis of Section 8 are of only minor importance. All recent laws in fact give the NSI the task of exploiting these sources of information. Communicating individual data to the statistics department in this way is of course a one-way process, since statistical secrecy would stand in the way of any transfer of information from the statistics department to other departments.

But how, in technical terms can access to administrative data become a reality ? It is computerization that has created the conditions for this. Denmark has made full use of the possibilities, introducing for this purpose a system of national identification numbers which allows the statistics department to have easy access to administrative directories and even to link administrative data as required. Other countries do not allow this solution. It can thus be seen that the obstacles are essentially of a legal nature. Let us now look at the solutions adopted in countries other than Denmark.

9.41 Does the NSI have access to administrative data by electronic means ?

In principle the answer is yes, but distinctions have to be made. Access is generally by means of the transfer of magnetic tapes containing depersonalized data. Cases of direct access by the NSI to administrative files are still a rarity. The access to national directories in Belgium and Luxembourg (and of course in France) obviously comes into this category. Studies are being carried out in a number of countries (Belgium, Luxembourg, Italy etc.) with a view to access by the NSI to the VAT files, or more rarely to social security files. Mention must also be made of Section 8 of the German law on statistics, but the use made of this is restricted to statistics on cross-border trips and on some aspects of consumption.

9.42 Linking of administrative data for statistical purposes using identification numbers

To what extent is it possible to achieve the grand slam of linking statistical and administrative files to obtain integrated statistical documentation?

Answer : insofar as two conditions are met, i.e. :

- there are national identification numbers in general use in government departments;

- there are no legal obstacles to such linking.

The situation in the Community in this respect is as follows :

1. There is an integrated system in Denmark which constitutes the foundation of the Danish statistical system.

2. In Belgium the conditions for such a system are largely in place, although applications are still only limited. The NSI is thus able to link social security and VAT files, and there are no objections on principle to wider linking.

3. In France and Luxembourg the technical conditions (i.e. national identification numbers) are in place, but because of the legislation on the protection of privacy the possibilities of linking files on individuals are extremely limited. In Luxembourg it has not been possible to use the national number in the population census. The same objections do not apply to businesses, at least as long as they are not sole proprietorships. It is possible to link data from the business register and from VAT files (and in future probably from social security files as well). In France the unified system of statistics on businesses (SUSE) merges data from tax declarations on industrial and commercial profits (PIC) and the annual statistical surveys of businesses.

4. In the other countries, in the absence of national identification numbers, links are generally only made within the statistics department. In the decentralized system in the United Kingdom that means that links are established in the statistical divisions of ministries between various data provided by the department itself, but not between departments; only the CSO is in a position to link its VAT data on businesses to data from the Department of Employment's register. In the Netherlands the CBS is in a position, thanks to the magnetic tapes it receives and an identification system it has developed, to produce statistics on incomes based on tax declarations and other administrative sources. There is not, however, any direct link between the CBS networks and the computers of administrative systems.

9.5 Data protection and protection of privacy

9.50 Background

In a large number of countries there are special laws on the protection of privacy, the principles of which were first set out in the 1970s in recommendations from the Council of Europe and the OECD. Why does electronic processing of data arouse fears which were not aroused by the old punched-card machines? Computers differ from conventional machines above all in their productivity, but also in the new possibilities they offer.

In terms of productivity computers allow :

- storage of an enormous quantity of data in a small space,

- rapid reproduction of the stored information,

- easy access to the information and the insertion of changes.

As regards the new possibilities offered by computers, they have been regarded as potential threats, e.g. :

- the ease of recording information which is not strictly necessary concerning, for example, individuals' private lives;

- the possibility of processing the data in ways not originally envisaged;

- the ease of transmission (or even theft) of substantial quantities of information held in a compact medium;

- the possibility of amending or deleting data without trace;

- the dangers of electronic espionage;

- lastly, and most importantly, the technical possibility of collating files and thus building up considerable documentation on private individuals.

The Council of Europe and the OECD looked at the question in the early 1970s and recommended drawing up special legislation with the following main features (contained in the Strasbourg Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data) :

1. The constitution of a computerized database must in principle be authorized by a special body set up for the purpose which keeps a register of databases.

2. The staff operating databases are subject to certain special rules.

3. The recording on electronic media of data concerning philosophical or political opinions, trade union membership, religion, race etc. may be banned.

4. Information may not, without special authorization, be used for purposes other than those for which it was recorded (N.B. in statistics this presents a problem of interpretation, since it is impossible to foresee all the tables to be derived from a survey).

5. All persons have the right to know what information has been recorded on them and for what purposes this information is stored; they can demand a copy of the data held on them.

9.51 Is there a special law ?

Since the late 1970s most countries have adopted laws on the protection of personal data in computer systems. As their titles state, these laws relate only to personal information stored on electronic media. They therefore do not cover :

- manual files;
- depersonalized data collected in opinion polls, for example.

The situation in the Twelve is as follows.

Belgium

There is a draft law. Some features of such legislation were already in the Law on statistics and the Law of 8 August 1983 on the national register of natural persons.

Denmark

1978 law on registers kept by public authorities.

Germany

There are laws on data protection at federal level and in each of the Länder.

Greece

No specific law.

Spain

The law on statistics contains the essential provisions of a law on data protection. The specific law now being prepared will thus stipulate that statistics is outside its field of application.

France

Law of 6 January 1978 on data processing, files and freedoms. This law does not contain any references to statistics.

Ireland

The 1988 law on data protection is of a general nature but takes account in a number of articles of the specific features of statistics.

Italy

There is no law on the protection of privacy. The provisions on the law on statistics regarding statistical secrecy are supposed to constitute a sufficient safeguard.

Luxembourg

Law of 31 March 1978 regulating the use of nominative data in computer processing. This law is intended to "protect natural or legal persons against misuse of nominative data" (Art. 1). It was drawn up and adopted without consulting STATEC, and statistics is not covered by any special provisions.

Netherlands

Law of 28 December 1988 on data protection. A particularity : this law also covers non-computerized data.

Portugal

Law No. 10-91 on the protection of personal data in electronic processing. Statistics are covered by four special provisions.

United Kingdom

Data protection Act 1984. The full title is "An Act to regulate the use of automatically processed information relating to individuals and the provision of services in respect of such information". The Act relates to the protection of data, not the protection of privacy. There are special provisions covering statistics.

9.52 Authority responsible for data protection

Laws on data protection set up authorities responsible for ensuring compliance with the data protection provisions. In two countries (Belgium, Denmark) the creation of such an authority derives from the Law on public registers. In Spain the INE is itself responsible for data protection. Greece and Italy have no specific legislation.

Subject to these remarks, we can identify three categories as regards the composition and powers of the existing bodies.

1. The authority responsible for data protection may be an individual Commissioner or Registrar (Germany, Ireland, United Kingdom) or a Commission (five personalities or more : Belgium, Denmark, France, Luxembourg, Netherlands, Portugal).

2. The authority may have regulatory powers (France, Portugal) or simply be a consultative body.

3. Lastly, in a few countries (France, Germany, Luxembourg) the operation of these bodies is a cause for concern for the NSIs, because the law on data protection does not take account of the specific nature of statistics, whereas in the other countries the authority set up is essentially a registry of databases which supervises data protection while taking account of the particular features of statistical activities.
   Here is a description of the situation in the Member States.

Belgium

The 1983 Law on the national register of natural persons created a Consultative Commission which "has the task of giving opinions, either on its own initiative or at the request of the Minister of Justice, on any question relating to the protection of privacy within the framework of the Law, having regard to the development and use of technologies for the automatic handling of information".

Denmark

The 1978 law on registers kept by public authorities created a supervisory authority known as the Council which ensures in particular that detailed instructions are drawn up for the operation of databases and the protection of data. The Council is presided by a member of the judiciary and comprises six other members, all of which are appointed by the Minister of Justice for periods of four years.

Germany

There is a federal Commissioner for data protection (Bundesbeauftragter für den Datenschutz) together with Commissioners with similar responsibilities at Länder level. In addition, there is an official responsible for data protection within the Statistical Office.

Greece

A few articles in the law on statistics relate to computer fraud and the protection of software, but there is no specific law on data protection.

Spain

No specific authority. The INE is itself responsible for data protection. Certain provisions of the Law on statistics are very far-reaching. Thus, according to Article 18, "data allowing direct identification of respondents shall be destroyed once it is no longer necessary to keep them". The result of this is that after the results have been validated the questionnaires are physically destroyed.

France

Law 78-17 of 6 January 1978 on data processing, files and freedoms created a National Commission on Data Processing and Freedoms (Commission Nationale de l'Informatique et des Libertés - CNIL), which is responsible for ensuring compliance with the law, particulary by informing all those concerned of their rights and obligations, consulting with them and supervising computer applications for the processing of nominative data. The Commission has regulatory powers in the cases provided for by the Law. It is made up of 17 members appointed for 5 years, comprising representatives of the major organs of state and specialists in information technology.

Ireland

As in Germany and Great Britain, there is a Commissioner, who is appointed for five years but may be removed at any time by the Government, which lays down his terms of reference. This is a full-time appointment and the Commissioner has a staff of civil servants.

Italy

No special authority.

Luxembourg

The Law of 13 March 1979 created a Consultative Commission made up of five members appointed for five years who are drawn from lawyers and computer experts in the public and private sectors. As its name suggests, the Commission's powers are purely consultative, but for political reasons the government will not in general ignore a "consultative" opinion. The Commission has the job of giving the Minister of Justice an opinion on the respect accorded to rights which are protected by law. This opinion can contain proposals concerning the security and supervision systems to be set up or the period beyond which data must not be kept, used or disseminated. It seems that the Commission, which does not have any administrative infrastructure, is overworked and that many problems in the private sector escape its attention, whereas it is exacting in its supervision of statistics.

Netherlands

The Law of 28 December 1988 on data protection created a Registry of databases, but the CBS is stricter than the Registry in matters of data protection, to the extent that academics accuse it of excessive rigour.

Portugal

Law 10-91 created a National Commission for the Protection of Computerised Personal Data (CNPDPI), an independent public body with decision-making powers which is directly answerable to the Assembly of the Republic and has a technical and administrative infrastructure. It has seven members and gives its opinion on the constitution and operation of banks of personal data and authorises, in the exceptional cases provided for in the law, the linking of computerized files containing personal data.

United Kingdom

The 1984 Data Protection Act created a Data Protection Registrar with whom all databases containing personal data must be registered. Any complaints may be brought before a Data Protection Tribunal.

9.53 Consequences for statistics

We have shown in Chapter 1.30 that statistics departments, while subject to administrative supervision, enjoy a degree of operational independence and that the principle of statistical secrecy allows or even obliges them to refuse to communicate individual data to their supervising minister. They are not ordinary government departments and data are a priori better protected there than elsewhere.

Any law on the protection of personal data should thus recognize the specific nature of statistical activities and give them special treatment. This is not the case, however, in at least three countries (France, Germany, Luxembourg), where the legislation on the protection of personal data is a source of concern for the NSIs, unlike in the other countries.

9.531.. Laws which recognize the specific nature of statistics

This is the case in Denmark, Ireland, the Netherlands, Portugal and the United Kingdom. It will be sufficient to quote the main special provisions.

In Denmark the Law on public registers specifies that individual data in statistical directories may not be communicated to third parties and lays down that :

- the linking of data from various registers, which is in principle highly restricted, is allowed if the purpose is purely statistical and any use for administrative purposes is thus excluded;

- individuals' right of access to data which concern them, which is compulsory for administrative registers, is not granted in the case of statistical registers.

Philosophical opinions

These provisions are found in other protective laws. The Portuguese and United Kingdom laws also deal with the problem of questions relating to philosophical, political, religious and other opinions, which the Strasbourg Convention says may be banned. In Portugal this prohibition does not stand in the way of processing for purposes of research or statistics, provided it is not possible to identify the persons to whom the data relate (Article 11). It seems that such questions can also be put, exceptionally, in Ireland and the United Kingdom for purely statistical purposes.

Destruction of files

There remains a question on which there are divergent opinions. We have seen that even in the absence of a specific law on data protection, the Spanish law on statistics requires that census questionnaires be destroyed after the results have been validated. In Portugal Article 23 on the Law on data protection also requires that they be destroyed "without prejudice to any extension of the time limit by means of a special law or an authorization from the Commission". Such destruction is an innovation, in contrast to a practice going back many centuries of keeping the archives of major censuses. Thus the United Kingdom law lays down - very wisely in our opinion - that individual data collected for historical, statistical or research purposes may be kept indefinitely.

9.532 Laws of the second type

While the laws referred to above have a well-defined purpose of protecting personal data, the laws of the second type also make reference to a very broad concept of the protection of freedoms or of privacy, which can give rise to broad interpretations, and these laws do not take account of the specific nature of statistical activities or of the existence of statistical secrecy.

In France, for example, the right of access and rectification accorded to the persons concerned applies equally to statistical databases, for which it has no raison d'être, and to administrative databases. In addition, the CNIL tends to give a broad interpretation of the law, e.g. in limiting and supervising the linking of nominative files. The CNIL's judicial practice is thus developing in a way which is not very favourable to statistics, and negotiations with the CNIL take up a lot of time.

There is a similar situation in Luxembourg. The Consultative Committee interprets its mandate in a way which is tantamount to interference in the internal management of STATEC. Instead of restricting itself to supervising the data-processing stage, it extends its investigations to the content of questionnaires and the programmes for exploiting results. Thus, in the 1991 population census the Commission obliged STATEC to amend certain questions and forbade the updating of the registers held by municipalities. It similarly opposed exploitation of the 1981 census data for a study on the frequency of cohabitation and the use of the business directory for computerized processing. In the latter case it opposed the transmission of a sample extracted from the - published - directory of Luxembourg businesses, arguing that electronic medium modified the nature of the information - a questionable interpretation in the case of information which is in the public domain. These pernickety checks have become a source of concern for STATEC.

In a number of countries the predominant feeling is that the pendulum has swung too far with regard to the protection of personal data.

10. EUROPEAN COOPERATION AND THE ORGANIZATION OF STATISTICS

10.1 Transposing Community legal acts to national law

We saw above (cf. 0.26-0.27) that statistical work organized jointly at European level is governed by what might be termed "Community statistical laws" or, more accurately, regulations, directives and decisions adopted by the Council of Ministers on the basis of Article 189 of the Treaty. We now have to see how and on what time-scale these Community legal acts are transposed to the Member States' national legislation.

10.11 European surveys : legal procedures

Although lawyers may by nature be sticklers for form, statisticians are much less punctilious. There are excellent reasons why transposition to national law should be virtually automatic rather than requiring any formal act :

- the NSIs have been involved in the drafting of the Community legal act through the DGINS Conference and, possibly, Council working parties;

- the European survey will necessarily be incorporated into NSI's programme of work;

- bilateral Eurostat-NSI management and programming missions monitor implementation of the European programme;

- financial contributions from Eurostat are paid after contracts entailing a new survey commitment on the part of the NSI are signed.

In fact, most NSIs agree with this theory, but in a few countries there is a certain amount of red tape of varying shades of red in practice. There are four different situations.

1. Virtually automatic transposition

This would seem to be the case in at least seven countries Denmark, France, Greece, Luxembourg, the Netherlands, Portugal and the United Kingdom where there is no particular formality accompanying the transposition. Community surveys are incorporated into the national statistical programme and approved along with all the other national surveys. This approval (which may be by order or decree) makes them just as binding as national surveys.

In Denmark, the 1966 law on statistics lists Community censuses and surveys which fall within the remit of Danmarks Statistik; questionnaires may therefore refer to Danish law and need have no reference to Community legislation.

2. Publication in the Official Gazette

In two countries Belgium and Italy certain Community acts are published in the Official Gazette, basically for reasons of legal security.

In Belgium, only regulations are published. Publication raises no problems of form or substance and in principle does not take very long.

3. Need for a decree

When the executive authority intervenes, on the other hand, there are liable to be delays. This happens in three countries :
In Belgium, where directives and decisions are approved by Royal decree, without the text of the Community act being reproduced. However, the questionnaire is reproduced in the annex to the decree;

In Spain, where prior to the 1989 law, Ministerial decrees were passed. Under new legislation, it is still not certain whether incorporation into the national statistical plan will suffice or whether a special Royal decree is needed covering the Community legal act;

In the Netherlands, where a Ministerial decree, taking from three to twelve months, is used only if it is going to be made compulsory to reply to a Community survey.

4. Recourse to law

Only the two countries which apply the legality principle have recourse to law, namely Germany and Spain. In Germany, a law is needed to transpose directives and decisions to national legislation. A regulation is directly applicable, but there is no obligation to reply unless the European regulation specifically introduces such an obligation or if there is a German law on the same subject which lays down an obligation and to which reference may be made. In Spain, recourse to a special law could be necessary in principle, to make replies compulsory.

10.12 Timetable for the transposition

The timetable depends on what has just been said about procedures. In the majority of countries, transposition is virtually automatic or requires nothing more than publication in the Official Gazette; Community acts therefore become nationally valid immediately, or at least as soon as all national surveys in the annual programme are approved.

There are delays only when a special legal act is required at national level. A decree (Belgium, Netherlands and, possibly, Spain) takes between three and twelve months. Recourse to law (Germany and Spain) is bound to lead to longer delays, of around 18 months to two years.

10.13 Special cases : general statistical legislation

The Community legal acts just mentioned are those governing surveys special Community legislation (see Chapter 0.27). But what about general legislation, i.e. that affecting the actual organization of European statistics? In some cases the situation is very simple and in others new problems arise.

Neither the setting up of advisory bodies within Eurostat (Statistical Programme Committee, Committee on Monetary and Financial Statistics, CEIES) nor the GNP Directive seems to have caused any legal problems in the different countries.

Regulation on statistical confidentiality

It is basically because of the Regulation of 11 June 1990 on the transmission to Eurostat of data covered by statistical confidentiality that some national laws but in a minority of countries have had to be amended. Most of the Member States (Belgium, Spain, Italy, Luxembourg, the Netherlands and the United Kingdom) consider the regulation to be immediately applicable and part of the domestic legal system, provided that Eurostat has taken the internal organizational measures provided for in the regulation. How statistical confidentiality is interpreted depends on the NSIs. In this respect, there is a problem only in that the Committee on Statistical Confidentiality makes qualified majority and not unanimous decisions, which introduces a supranational element into any assessment of what is confidential.

In two countries, at least, the law has had to be amended and in two others there are problems not yet solved. In Denmark, the penal code has been amended so that the penalties provided for in cases where confidentiality is violated apply to Eurostat staff. In Greece, the provisions of the 1956 law on statistics which relate to statistical confidentiality have had to be amended, and in Portugal the question has been raised as to whether the relevant article of the Law on Statistics should be amended.

Finally, in Luxembourg, the problem of which law is applicable and which court should have jurisdiction over any cases where statistical confidentiality is violated at European level has not been resolved. The Ministry of Justice is also reluctant to rule on whether Eurostat officials are subject to Article 458 of the penal code, which refers to "all other persons who are the repositories of secrets confided to them", and the question is being raised as to whether the staff regulations of European officials should not be amended to include a reference to national penal legislation, or whether there should not be special staff regulations for Eurostat.

10.2 Use of Community statistical standards

If they are to be of any use, statistics must be comparable, and if they are to be comparable they must be based on common definitions and classifications. The standardization of definitions and classifications has been a major objective of international statistical cooperation from the outset. Such endeavours even go back to the first statistical conferences convened by Quételet in the mid-nineteenth century. But harmonization has always proved difficult : habits are ingrained, there are different ways of looking at things, it costs money to change a system and there would be gaps in the time series. There is a price to be paid for progress, however, and it is particularly interesting to see what headway Eurostat has made and what attitudes the Member States are taking.

10.21 Classifications

European classifications are used, since there would be no European statistics otherwise. Several countries (Greece, Spain, France, Italy, Luxembourg, Portugal and the United Kingdom) use Community classifications for their internal requirements and others (Belgium, Germany, Ireland and the Netherlands) still have national classifications but use transposition keys. Germany has stated that it is prepared to switch to European classifications alone (it will be using the NACE Rev. 1 and PRODCOM as from 1995) since this is the price to be paid for the statistical integration it favours. France and Italy defend their own points of view in discussions on classifications, but accept negotiated compromises.

There have been long battles over the revised NACE, but countries have a certain amount of freedom at the five- and six-digit levels, with only the first four digits being compulsory.

Two countries are rather more critical. Denmark is of the opinion that important results can be achieved via voluntary agreements, viz. the ESA, and that there should be no need for compulsory legal acts such as were used for the NACE revision, the external trade nomenclature, or the typology system for agricultural holdings.

The Netherlands goes further. The CBS believes that quality should not be sacrificed to harmonization. Its criticisms are aimed primarily at the NACE Rev. 1 and the CPA (Classification of Products according to Activities). An international classification should be simple and reduced to the bare minimum, reserving some digits for national peculiarities. The NACE should not be a closed system for twelve countries but should make it easier for comparisons to be made with other countries and should therefore not deviate too much from the United Nations' ISIC.

10.22 ESA

Although all countries in principle use the European System of Integrated Economic Accounts (ESA for short) for the national accounts figures they send to Eurostat, there are certain peculiarities which have arisen for historical reasons or because of differing circumstances in different countries.

1. Historical reasons are invoked in Belgium and the United Kingdom. In order to be able to provide long series for the Bureau du Plan, the Brussels NSI calculates national accounts in line with the old OECD system, whilst compiling parallel series according to the ESA; however, plans are afoot to use the ESA alone in future, since this has the advantage of being comparable at European level. The United Kingdom uses its own system of national accounts (SNA) which is not strictly speaking comparable with the ESA, in order to continue to produce consistent long-term series.

2. There are national peculiarities in three or four countries. The German system is virtually the same as the ESA. The Irish national accounts differ from the ESA in a few points, but there is a conversion key. In Luxembourg, the ESA is used subject to certain adaptations dictated by the special nature of banking (export of services rather than intermediate consumption), which is one of the mainstays of the country's economy. Eurostat is helping Greece to change over from the United Nations system to the ESA.

3. Elsewhere, there are very few differences. As with classifications, France has battled to defend the French viewpoint but in any case the ESA is largely French-inspired.

10.23 Definitions

Generally speaking, the countries use the definitions drawn up jointly for Community surveys, at least for data to be transmitted to Eurostat. To the extent that national definitions differ from Community ones, a system has been developed for switching between national and Community definitions (Germany).

For the 1991 population census in Spain, questions were added which had not been put previously, to generate the information Eurostat required.

10.3 Financial contributions from the Community

The Community provides funds for work undertaken jointly. For practical purposes, this means that for numerous Community surveys Eurostat draws up contracts with the NSIs under which they renew their commitment to carrying out the survey whilst the Community promises to pay a financial contribution to cover some of the costs. As long as the Community countries all had statistical systems at a fairly similar level of development, as was the case up to 1972, it was legitimate to ask whether this was not expensive and irrational in that the contributions came from a Community budget which was itself funded from national budgets and those contributions found their way back to those same national budgets because the NSIs did not have the financial independence which would have enabled them to use the money received. Certain new factors have arisen now, however, and the following arguments may be put forward to justify the contributions :

1. The subsidies have helped to pay for the modernization of certain statistics (in particular, agricultural statistics in Italy, Portugal, Greece and Ireland) or statistical systems.

2. Sampling rates are much higher in the smaller countries, and therefore contributions which are pro rata with the number of units surveyed offset the cost of this handicap.

Finally, those NSIs which are financially independent (see Paragraph 6.53) have an obvious interest in receiving contributions this is the case in Denmark, Portugal, Italy, to some extent France, and, in principle, Greece, where the system still has to be finalized.

10.31 Importance

The figures in chapter 6.5 show the importance of Community contributions in relation to the NSIs' total statistical expenditure. These contributions are particularly large in Portugal, Ireland and Greece.

In Luxembourg, virtually all Community payments go to a single survey of the labour force a reflection of the fact that, as mentioned above, sampling rates are high in a very small country.

10.32 Utilization

In almost half of the Member States Belgium, Germany, Ireland, Luxembourg, the Netherlands and

the United Kingdom Community payments may be used by the NSIs themselves only in a few exceptional cases : to pay overtime in Belgium or temporary staff in Germany and the Netherlands. These NSIs are therefore at a disadvantage compared with the financially independent ones. Two conclusions may be drawn from this :

- contributions in kind, in the form of technical assistance (seconding experts or providing software) put the countries on an equal footing;

- the experience of those NSIs which are financially independent could well be broadly copied in all Member States.

10.4 National assessments of European statistical cooperation

What do the NSIs think about European statistical cooperation, on which they are expending increasing amounts of energy ?

Although there are inevitably a few critical voices, assessments are positive overall, and in some cases even enthusiastic.

10.41 Positive assessments

Some of the advantages of European cooperation are appreciated by everybody, others affect some countries only.

10.411 General advantages

The immediate, obvious advantage of cooperation is that statistics are internationally comparable, thanks to the harmonization of definitions and classifications and the synchronization of surveys.

There is general agreement that Eurostat has been the prime mover, even though some countries welcome certain types of initiative more than others. Thus in Denmark the general opinion is that industrial statistics have benefited from European cooperation, whilst other countries are more appreciative of developments in services statistics (Germany, Italy, Luxembourg and the Netherlands).

In theory, the European requirements of statistics should help to increase the resources at the disposal of the national statistical systems, although this seems to be the case in only a few countries. It is true, however, that reference to Eurostat makes it easier to justify some of the survey expenditure incurred by businesses.

Finally although this experiment has only just begun the GNP Directive should be a powerful lever for increasing both the quality and the comparability of the data available.

10.412 Particular advantages

For the small NSIs with limited resources or for those countries which are statistically less well developed, European cooperation may be of major importance in that it provides technical assistance and financial support. One merely has to think of the reorganization of agricultural statistics undertaken with Community support (financed by the EAGGF) in Italy, Greece, Portugal and Ireland. Agricultural statistics are vital for the management of the Common Agricultural Policy.

In countries where the federal structure or pernickety legislation give cause for concern, European cooperation may also be seen as a way of overcoming domestic difficulties.

10.42 Criticisms

One criticism often expressed in the past, namely that European cooperation could mean duplicating the work of other international organizations, has undoubtedly become less relevant now, thanks to contacts between the secretariats of the organizations concerned.

In some small countries (Ireland, Luxembourg, etc.) the European statistical programme may appear cumbersome and exceed the requirements and resources of a small NSI.

The INSEE thinks that European statistics attach too much importance to the production system and that the social system has not been sufficiently well explored. It should be possible for the CEIES (Advisory Committee on Statistical Infromation in the Economic and Social Spheres) to discuss this aspect.

The implications of the principle of subsidiarity in statistics have still not been thoroughly thought out. In particular, it is important to consider whether the increasing proportion of national resources swallowed up by the European programme is not becoming excessive.

Finally, the Netherlands expresses a few constructive criticisms. The CBS points out that Eurostat's computers are housed in the same computer centre as those of the Commission. Eurostat ought to have a separate computing centre. The CBS also thinks that Eurostat's outlook is sometimes too theoretical, that it is out of touch with the practical problems. In the 1950s, European statistical staff were primarily specialists recruited from the NSIs. Nowadays, that staff is composed primarily of university graduates who lack experience of national statistical practices.

11. DOCUMENTATION ON THE NSIs AND THE PUBLICATIONS THEY PRODUCE

Now that this study is drawing to a close, it may be useful to give some indication of the documentation available on the organization of statistics, in particular statistical legislation, monographs on the national statistical systems and, finally, publications produced by the NSIs.

11.1 Statistical legislation

First source of documentation : laws on the organization of statistics. Only a few countries (Belgium, Germany, France and Luxembourg) produce collections of statistical legislation; in other countries, researchers are obliged to seek out the various texts for themselves.

A further point is that statistical legislation can exist only in the national language. Some countries have taken the trouble to have their statistical legislation translated into English (Denmark, Germany, Italy, Spain and the Netherlands) or French (Italy, Spain and Portugal); the problem of translations is particularly acute in Greece.

Now for a review of the twelve countries.

Belgium

The law on public statistics is the subject of an INS publication, together with a list of decrees concerning current statistics (1986).

Denmark

There is no compilation of statistical legislation. Some of the Danish laws mentioned in the introductory chapter have been translated into English.

Germany

There are two exemplary compilations of German statistical legislation :

"Das Arbeitsgebiet der Bundesstatistik" : in addition to the law on statistics, the annex contains the provisions of the Basic Law of the Federal Republic of Germany and of the Treaty of Rome which concern statistics.

"Statistische Rechtsgrundlagen. Loseblattsammlung" (1992) : loose-leaf series containing the law on statistics for federal purposes, together with all the laws pertaining to statistics and legislation on data protection. The main texts are preceded by a brief explanatory memorandum.

Greece

There is no compilation of legislation on statistics. The main legal texts should be translated into French or English as a matter of urgency.

Spain

No compilation of texts on statistics.

France

No compilation of all texts of interest for statistics, but the most important extracts are collected together in the INSEE's information brochure entitled "Missions, organisation" (1989).

Ireland

No compilation of laws on the organization of statistics in Ireland. There are four categories of text :

- the 1926 Act
- the 1988 Data Protection Act
- the European Communities Act 1982 (accession of Ireland to the Community)
- the "statutory instruments" signed by the Prime Minister.

Italy

No compilation of Italian statistical legislation. Reference should be made to the *Gazzetta Ufficiale*, where there are four categories of text :

- 1989 decree law on the reorganization of ISTAT
- ISTAT's discussions on the organization of the SISTAN's statistical departments
- Decree of the President of the Republic approving the national statistical programme
- Decree of the President of the Government of 14 May 1992 approving the ISTAT organization chart.

Luxembourg

STATEC has published a two-volume compilation of Luxembourg statistical legislation :

I. Legislation on the general organization of statistics in Luxembourg (August 1988)
II. Community statistical legislation (March 1988)

The latter volume has not been updated since there is a Eurostat publication on the same subject.

Netherlands

No compilation of statistical legislation, of which there is not a great deal in any case (see Chapter 0).

Portugal

The INE has prepared a list of Portuguese legislation on statistics.

United Kingdom

There is no compilation of legislation on statistics, only the separate texts of the various laws and CSO recommendations on statistical confidentiality :
"Code of Practice on Confidential Data".

11.2 Monographs of the national statistical system

The professionals themselves, and even colleagues interested in foreign models, are often aware of the need for an overall view of their statistical systems and informed comment on statistical legislation. It is also important to be able to provide an overall view for the public authorities, the business community and the general public, in this latter case in popularized form.

But there are still very few monographs on the national statistical systems apart from the explanatory memoranda on draft reforms of the statistical legislation, which are not the same thing. There are two exceptions to this general rule, Germany and France, and their monographs may be quoted as models of the kind :

"Das Arbeitsgebiet der Bundesstatistik" (latest edition 1988) is a methodological comment on the main aspects of the organization of statistics in Germany.

"INSEE : missions, organisation" (latest edition 1989) is likewise a very clear presentation of France's solutions to the main problems of statistical organization. There is also a recent (1992) and more exhaustive INSEE publication entitled : "Le système statistique public francais" in three parts : I. general presentation, II the statistical departments in the ministries and III. detailed register (organization chart).

There is also an INSEE periodical, "Le courrier des statistiques" which endeavours to take stock of the organization of statistics by publishing articles written by foreign experts on their own statistical systems alongside analyses of the French system.

The age-old problem is that these analyses are nowadays rapidly overtaken by the pace of innovation. There ought to be updates at least every five years, but this happens only in the two countries mentioned above. Now for a quick look at the documentation available in the other ten countries.

Belgium

The existing descriptions, namely two INS publications written in 1978 by the Director-General Mr van Landeghem on "L'INS et le problème de l'information statistique", are now outdated.

Denmark

A few fairly brief documents published by Danmarks Statistik describe the central statistical office and the statistics it produces, the register system and the plan of work.

Greece

An article by Mr Kelperis, published in 1981 in the INSEE "Courrier des statistiques" deals with the organization of Greece's National Statistical Office.

Spain

The same "Courrier des statistiques" published in 1982 an article by Mr Llagunes on the organization of statistics in Spain. There is no up-to-date monograph apart from a few INE publications in Spanish on the organization chart, the organic structure, a plan of work and human resources.

Ireland

No monograph apart from a brief paper by Mr Murphy, Director of the CSO : "Irish official statistics : background details and data sources" (1991).

Italy

The existing studies are legal comments on the law but there is no popular monograph presenting ISTAT or SISTAN to the public at large.

Luxembourg

The fullest text is in the "Cahier économique" No 80, published by STATEC : "Statistiques et études economiques au Luxembourg. Histoire et problèmes" (1990).

Netherlands

No monograph analysing the system as a whole.

Portugal

The Portuguese statistical system as it was in 1989 has been analysed (in Portuguese) in the report the Commission produced with a view to reforming statistics in Portugal. There is also a brief Vademecum on the INE in English; a fuller monograph is planned.

United Kingdom

The CSO's "Statistical News" contains a series of articles on the work and organization of statistics in the different departments.

11.3 Publications

An analysis of publication systems is beyond the scope of this work. A list of publications and of their prices can be found in the annual catalogues published by the NSIs for distribution and sale, and these show that there are four types of publication :

1. National and regional publications;

2. Volumes published at regular intervals :

   - ....ten-year, five-year censuses, etc. (population, industry, etc.)
   - ....major annual volumes : statistical yearbooks, national accounts, possibly "tableaux économiques", social data, etc.

   The presentation and contents of the statistical yearbook and national accounts give at least some indication of the efficiency of a statistical organization;

   - ....monthly, quarterly publications, etc.

3. Publications on different types of medium (publications in the broadest sense) :

   - ....printed publications
   - ....file printouts (hard copy)
   - ....electronic or photographic publications (diskettes, tapes, microforms)
   - ....data banks which may be consulted.

4. Publications on various topics : statistics on population, agriculture, industry, commerce, etc, and methodological analyses etc.

   Whereas the centralized statistical systems present their information in a uniform way, to some extent at least, the decentralized systems produce a particularly large number of titles, with each department striving to produce as many as possible.

5. Finally, there are certain special factors. As indicated in 2.215 and 2.216, the Statistisches Bundesamt has by law to publish a special yearbook containing international data.

   By law, too, the Bundesamt has to popularize statistics, to bring them closer to the man in the street.

   For almost 30 years, the Luxembourg STATEC has been producing a brochure with the main figures relating to Luxembourg; whereas the statistical yearbook has a print run of 1 000 copies, the mini-yearbook has a run of around 70 000 and undoubtedly helps to popularize statistics. This initiative has therefore been copied by other NSIs and by Eurostat itself.

11.4 Distribution policy and print runs

Should statisticians be commercially-minded? Although they have a scientific turn of mind and are all for being methodological, they have no idea how to go about disseminating the fruits of their labour. However, there are a few questions which they cannot avoid.

11.41 Free distribution ?

Traditionally, the statistical offices send each other their publications. Strictly speaking, this is not free distribution, but a quid pro quo. What about distributions that really are free?

One of the statistician's main disappointments in life is the realization that the public at large does not share his or her passion for the figures he or she produces. Publications do not sell and stocks pile up to the point where after a few years they have to be thrown out to make way for new stocks ... which will just be thrown out as well in due course. There are two possible reactions to such a calamity : free distribution or commercial promotion. When an NSI is not financially independent, free distribution may well be the wisest policy, for several reasons :

- any promotional effort involves cost, in terms of both money and time, without any commensurate return;
- many people are prepared to take an interest in figures provided they cost nothing;
- finally, since vast sections of the population are either totally unaware of the existence of statistics or ignorant about what they are, free distribution to government departments, businesses, educational establishments etc. may help to spread the word and even lead some to appreciate this strange phenomenon.

One can hardly reproach the NSIs, therefore if, war-weary and possibly facing the wrath of their auditors, they hand out statistical largesse (Greece, Luxembourg, the Netherlands, etc.).

11.42 Commercial promotion

The major disadvantage of free distribution is that there are no financial returns. When one's survival is not guaranteed by the State budget, therefore, one has to sell to keep going. This is the case with those NSIs, at least, whose financial independence is guaranteed by the State in the belief that it can thus reduce the finance it provides. In Denmark and Portugal, in particular, sales of publications already account for almost 5% of the NSI budget (see 6.51 above) and in a few other countries such as the United Kingdom and France the wind seems to be blowing the same way.

What are the implications behind it all? In Denmark, several of Danmarks Statistik's departments have to advertise their wares. Specialized agencies are used for large-scale campaigns. There will be announcements in the trade press, stands at trade fares, contact will be made with professional associations, etc. In order to increase commercial income, the presentation of publications may even be changed, to reduce the number of data provided low-cost in large compilations and sell more data *à la carte*. This applies particularly to population censuses and regional data which may be divided up into small portions and sold separately to interested parties.

11.43 Print runs

If you want to know how well a business is doing, consult its balance sheet and profit and loss account. If you want to know how well statistics are doing, have a look at the print runs for their publications. This comment must be taken with a pinch of salt, however. One single copy of a yearbook may be consulted by a large number of people in a library. Technical progress and modern methods of electronic dissemination mean that this source, too, has to be taken into account, but it is more difficult to obtain information on this aspect. Finally, *à la carte* data sales have to be considered : we saw in 6.51 above that in Denmark the sale of statistical services accounts for 17.8% of the NSI's budget, and 4.7% of Portugal's.

Subject to these reservations, it nevertheless seemed useful to collect together a few items of information on print runs, to the extent that the NSIs were willing (or able) to provide such information (for 1991 or 1992). For the tables of results, we considered only two traditional publications found in every country, namely the statistical yearbook and the monthly bulletin of statistics. Although the print runs may be known in principle, at least sales figures and figures for free distribution are sometimes only estimates, as are *a fortiori* figures for stocks, which are the difference between the print run and numbers sent out. However, a few interesting statements may be made about the figures :

1. Firstly, there are large print runs and sales in the Netherlands and Denmark whereas, at the other end of the scale, the United Kingdom has very small print runs, no doubt because statistics are intended mainly for the government. There are, however, a particularly large number of statistical publications in the United Kingdom. But things are changing now, since an increase in sales of services was stipulated when the CSO was given agency status.

2. There is large-scale free distribution in a few countries, from approximately 25% of the total (Portugal) to 50% (Belgium and Ireland) and even 60 to 80% (Luxembourg and Greece).

3. With the exception of Denmark and the Netherlands, the print runs of the two main statistical publications are fairly low, as can be seen from the figures showing runs per 10 000 inhabitants. For the statistical yearbook, this ratio is of the order of two in most countries, but is ten times higher in Denmark and the Netherlands, and even higher in Luxembourg because it is such a small country. On the other hand, the ratio is low in Spain and even lower in France and the United Kingdom.

The figures for monthly print runs are lower everywhere because they are expressed in terms of numbers. They would, of course, be higher if the total run for the year were taken into account.

STATISTICAL YEARBOOK

	PRINT RUN TOTAL	PRINT RUN PER 10.000 HAB.	SALES	FREE DISTRIBUTION AND EXCHANGES	STOCK
Belgium	1.975	2	720	700	(550)
Denmark	11.000	21,6	8.129	1.595	(1.300)
	30.270		25.783	765	(3.700)
	(Ten-year review)				
Germany	18.000	2,2			
	10.000				
	(Ann. intern.)				
Greece	2.417	2,4	354	1.476	(600)
Spain	4.000	1		(200)	
France	3.700	0,6	2.265	400	(1.000)
Ireland	800	2,3	200	200	400
Italy	11.000	1,9			
Luxembourg	1.200	30	200	540	(450)
Netherlands	30.000	20,3	18.000		
Portugal	max.1.700	1,7		(25%)	
United Kingdom	Low				

MONTHLY STATISTICAL BULLETIN

	PRINT RUN TOTAL	PRINT RUN PER 10.000 HAB.	SALES	FREE DISTRIBUTION AND EXCHANGES	STOCK
Belgium	1.250	1,2	500	620	(130)
Denmark	2.100	4,1	1.119	334	
Germany	4.400	0,6			
Greece	1.570	1,6	203	1.286	(80)
Spain	2.000	0,5		(200)	
France	7.600	1,3	6.600	750	250
* Eco & stat.	8.200	1,4	5 800	1.400	1.000
Ireland	750	2,1	350	200	(200)
Italy	5.000	0,9			
Luxembourg	800	20	270	400	(130)
Netherlands	8.000	6			
Portugal	(1.500)	1,5		(25%)	
United Kingdom	(500-3.000)	0,09-0,5			

Popular publications are a separate matter, and only a few figures are available for these. "Regioni in cifre" (Italy) has a print run of 120 000, "Le Luxembourg en chiffres" 90 000.

4. The United Kingdom stands out on a limb. Its print runs, which are indicated only in terms of range, are much lower than those of all the other countries, even if top end of the range is taken into account.

5. Selling prices are generally no higher than the actual cost of printing. In the smaller countries, when the absolute runs are low, prices may even be lower than printing costs.

6. For a comprehensive comparison, further information ought to be included which was available only for a few countries :

- the total number of statistical publications;
- the total annual print run and the number of pages printed;
- total sales receipts.

Danmarks Statistik which, in its reports, also gives statistics on statistical activity, has produced publication figures for 1966 to 1991. In 1991, 15.8 million pages were printed and receipts from sales amounted to 9.4 million kroner.

In Germany, annual output from the Statistisches Bundesamt is around one million copies covering some 750 titles, 300 of which appear regularly.

12. PUBLIC ATTITUDES TO STATISTICS

Like taxes, statistics are unloved, although the former have the advantage of being feared. People do not like filling in questionnaires and often feel that it is a pointless task. Most of them have only a very vague idea of what statisticians do and are mainly familiar with unemployment and price statistics, which moreover they dismiss as being wrong or rigged. Apart from this they like to quote Disraeli, who said that statistics are a refined form of lying. The small print runs of statistical publications in most countries exemplify the lack of interest in them. A lot has therefore still to be done to bring statistics closer not only to the general public but also to firms and the public authorities. Producing statistics is a difficult art.

12.1 Attitude of the public authorities

"Statistics are an essential part of good government; without good statistics there is no good policy". All governments make this declaration, but it does not stop them from sometimes treating their National Statistical Institute (NSI) as a poor relation. We have seen how, in such and such a country, promises to reform statistics made at election time have remained a dead letter and how regulations to implement the statistical law have taken many years to appear. Statistics are not in fact very interesting from an electoral point of view and are not included among the demands of pressure groups, except in rare cases such as the price index or income statistics.

Statisticians therefore find it very difficult to make themselves heard by governments, and when there is a swing of opinion against statistics, as occurred in Germany in 1981, they are virtually powerless. This was also the case in the United Kingdom when Mrs Thatcher's Government declared that less government meant less statistics, and set about dismantling whole sectors of statistics, which had to wait for the storm to pass.

12.2 Attitude of firms

The extension of the functions of government has resulted in increasing administrative burdens for firms, which fill in not only statistical questionnaires but also a large number of administrative documents. That is why they have called for a reduction of these burdens and the use of administrative sources for statistical purposes, so as to cut down accordingly on the number of statistical questionnaires.

In all the countries the NSIs are coming up against resistance from firms, resulting in delays, incomplete replies, refusals - in short, additional costs. They can, of course, impose penalties, but this is possible only when there is a limited number of recalcitrants. The non-response rates vary from country to country and survey to survey, and seem particularly high in Ireland, where they are as much as 50%; even in the Netherlands, where statistics are held in definite respect, the response rates are below the Community average.

Discussing survey problems with the representatives of firms within a higher statistical council or ad hoc committees is one way of bringing about better collaboration.

12.3 Attitude of the general public

For surveys which require prolonged and conscientious cooperation, such as those on family budgets, the NSIs generally prefer to call on voluntary collaboration, despite the very high refusal rates which this may entail (two-thirds wastage in Luxembourg). However, for the major exhaustive censuses (notably of population and agriculture) they have to invoke the obligation to reply. Such censuses therefore constitute a psychological test of the general public's attitude. Although in most of the countries the NSIs have come through the test successfully, there are nevertheless a number of worrying observations. For example, the census was accompanied by many disorders in *Belgium* and the United States. In *Germany* it gave rise in 1981 to an anti-statistics revolution which caused a delay of six years and forced an amendment of the law on statistics. In the *Netherlands* the 1970 law on population censuses even had to be repealed in 1991, following unsuccessful attempts in 1981 and 1991.

There are certain currents of opinion that explain the opposition in eight Community countries to the introduction of national identifiers; in *Germany* and *Portugal* this practice is even forbidden by the Constitution. In this context the experience of Denmark (and the other Scandinavian countries) is of interest from two angles :

- first of all, it shows that public opinion in Denmark has accepted a system of registration which elsewhere would have been regarded almost as a step towards George Orwell's "1984" nightmare;
- secondly, this system makes it possible to dispense with population censuses and the associated problems, although it was by no means devised for that purpose alone.

However, the system is not necessarily immune to swings of opinion, as a comment by Mr Zeuthen shows : *"An epidemic of fear of registers would be a disaster for Danmarks Statistik"*.

13. CONCLUSION

At the end of this long journey can we at least draw some lessons ? The national structures are probably the product of the countries' history and sociology. However, we have already seen that bad examples can be contagious - let us therefore hope that good examples can have the same effect. Moreover, our study cannot claim to be exhaustive, owing to the lack of time. We will therefore first of all give some information about the method adopted, before summarizing the main results. After that, we will try to take stock of the strong points of the various national organizations, as well as of the weaknesses which are the pitfalls to be avoided.

All that will then remain to be done is to make certain choices to create the ideal system, the European statistical system.

13.0 Method adopted and limitations of the study

Despite very frequent contacts, the NSIs in the Community (to say nothing of the others) do not know one another very well. That was what prompted Eurostat to ask us to carry out this study. We therefore drew up a fairly long questionnaire - about ten pages and sections - which we subsequently extended and sent to the twelve NSIs; this formed the basis for discussions which generally lasted two whole days. The description of the organization of statistics drawn up as a result of these discussions was the subject of further discussion, but in writing this time.

The output from this work was threefold :

- first of all, "analytical" reports, which are the replies given for each country to the joint questionnaire and are therefore deemed to be an inventory of facts, an objective and somewhat dry description of the organization of statistics in the Twelve; they can be found in volume II;

- secondly, likewise by country, a more synthetic decription designed to reflect the distinctive features of each national organization and therefore representing the author's views, which is why it has been called "Statistical impressions"; these constitute the first part of this volume;

- lastly, the comparative analysis that has just been presented.

The subjects studied correspond to the titles of the chapters, i.e. essentially the legal bases of the organization of statistics, resources and the main problems of internal organization. It was not possible to take the analysis far enough to make a value judgement about the efficiency of the organization and the quality of the statistics produced. This study has already been very time-consuming, with the national teams having in many cases spent two weeks on the questionnaire and the author at least a month on studying the organization of one NSI. Moreover, a study of this type inevitably involves a language aspect : the discussions were held in five languages and were supplemented by documentation in seven.

The study brought to light a paradox, namely that "statistics on statistics" are very scant; it was particularly difficult to compare the manpower and financial resources available to the national statistical systems.

13.1 Main results : summary

While most of the NSIs were founded in the 19th century, the legal bases of their present-day organization - statistical obligation and confidentiality - were not laid until between the two World Wars. International statistical collaboration, which dates back to the middle of the 19th century, did not flourish and become fully effective until a century later, thanks to Eurostat.

The legal foundations of the NSIs are laid down in all the countries by a basic statistical law, except in the United Kingdom where there are several. There are also special statistical laws prescribing various surveys, and other laws affecting statistics (public registers, protection of privacy), executive regulations authorizing certain types of statistical work and, lastly, internal regulations of the NSIs. It is only in Germany and Spain that a law is needed for any new survey.

At European level, the legal fabric, which up to 1989 related solely to surveys, nowadays also aims to provide an organic basis for European statistics.

1. The *names* of the NSIs reveal three fundamental distinctions : INS or INSEE (economic studies), national institute or government statistical service, central office or office of a territorial subdivision. Although the NSI always comes under the responsibility of a Minister (usually the Minister of Economic Affairs), it nevertheless enjoys a scientific independence which distinguishes it from the other government departments.

2. The *task* of the statistical office is defined either narrowly (statistics only) or widely (statistics + economic studies). In the latter case, it may cover studies of the economic situation, economic forecasts and econometric models. Statistical cooperation with developing countries often forms part of this task. Only two countries (France and Portugal) have a school of statistics working in association with the NSI.

3. Who has the *power* to decide on surveys at national level ? In general, this power rests with the NSI, which consults its Higher Statistical Council; sometimes, however, the Government has to give its approval, and in two countries (Germany and Spain) this power even lies with the Parliament.

4. Statistical *obligation and confidentiality* are the cornerstones of the modern statistical organization. If there were no obligation to reply, it would scarcely be possible to carry out exhaustive censuses. Statistical confidentiality is intended to create a climate of trust between the NSI and those it surveys; it is also the expression of the independence of the NSI, which must refuse to divulge individual data, even to its supervisory Minister. However, there is a surprising diversity of national regulations that still exist with regard to confidentiality.

5. Should a statistical organization be *centralized or decentralized* ? This is an old chestnut. A distinction must be made first of all between geographical decentralization and functional decentralization. The former is found in half of the Member States (Belgium, Germany, Spain, France, Italy and Portugal), while the latter lies at the root of the UK system and is also quite highly developed in France. The discussion centres mainly on functional decentralization. There are sound arguments in favour of each of the two systems, and the truth may sometimes lie somewhere in between. In the small and medium-sized countries, the advantages of centralization come out on top. Moreover, decentralization could not exist without some sort of coordinating body which has extensive powers. Nowadays, the use of administrative sources is introducing an element of decentralization in all the countries, thereby raising the problem of coordination.

6. Decentralization is a stumbling-block to a comparison of the *resources* available to the national statistical systems. In a centralized system, the manpower and budget available for statistics is well-known, but this is no longer the case in a decentralized system The comparison has nevertheless been attempted, and it shows that the Community average of 1.5 statisticians per 10 000 inhabitants is exceeded in six countries (Luxembourg, Germany, Netherlands, Denmark, France, Ireland), while the remaining countries are below this average. The same applies to expenditure on the statistical system. Moreover, as a result of progress on the productivity front the number of staff is declining steadily in several countries (Denmark, France, Netherlands, etc.), whereas it is continuing to rise in countries such as the United Kingdom, Belgium and Luxembourg. Recently, some NSIs (Denmark, Portugal, etc.) were given the financial autonomy which enables them to use the resources arising from the sale of statistical services or from Community financial contributions. In these countries there is also a tendency to calculate the cost price of statistical work.

7. The *organization chart* of a NSI obviously depends on the scope of its task (statistics or statistics and economic studies) and on the choices made with regard to geographical and functional decentralization, but it also depends on the option between a concentrated structure, which may be more efficient, and an extensive structure which increases the chances of internal promotion. The number of directorates in a NSI varies from a minimum of three (Denmark) to a maximum of fifteen (Greece). In all the countries a *Higher Statistical Council* brings together "the vital forces of the Nation" to determine the programme of statistical work. The Councils differ from one another not only in the extent of their powers but also in their composition - there are Councils with 7 or 8 members in Denmark and Ireland, Councils with between 20 and 25 members in Portugal and the United Kingdom, and lastly Councils with a large number of members in Germany (over 60) and France (170). They are chaired by the head of statistics in six countries, by a university professor in two others, or by a Minister. In Germany and Spain, there are also bodies responsible for geographical coordination.

8. As a result of the existence of the European programme, statistical *programming* is assuming increasing importance. The Higher Statistical Council is generally the forum where the annual programmes of statistical work are discussed; in Denmark and the Netherlands the Council's approval is even required. Eurostat's five-year programme also causes some thought to be given to medium-term programming, although this is for guidance only, whereas the annual programme, without being strictly compulsory, commits the NSI.

9. *Computerization* has had a major impact on statistical organization, first of all through the considerable gains in productivity at all stages of statistical work - collection, processing, dissemination - and the improvement in quality thanks to automatic checks, and secondly by creating the technical possibility of integrated statistical information through the interlinking of many sources of information by means of common identifiers. This development has, however, created a new problem, namely the protection of data or privacy; the laws passed in this connection and the data protection commissioners or commissions are putting the brake on statistical development in some countries, whereas in others account has been taken of the specific features of statistical activity and the

guarantees given by statistical confidentiality so that such laws are not a cause of concern. - It should be noted that it is only thanks to computerization that the conditions have been created for the use of administrative sources, in line with a demand from the private sector for a lightening of administrative burdens.

10. European statistical collaboration raises four questions.

First of all there is the transposition into national law of the regulations and directives governing European surveys; in at least seven countries this transposition is virtually automatic; in Belgium (for regulations) and Italy (regulations + directives) such legislation is published in the Official Journal for reasons of legal security; in the two countries which apply the principle of legality, namely Germany and Spain, a law is in principle needed for the transposition of directives.

The European statistical standards - classifications, definitions, ESA - are applied everywhere, otherwise there would obviously not be any truly European statistics; in some countries, however, national standards are still used for internal purposes and to continue long series.

The Community's financial contributions are intended basically to even things out in order to offset the handicaps due either to small size or to historical factors.

Lastly, what do the NSIs think of European collaboration ? Their opinions are on the whole positive, the major advantages being the comparability of statistics and the driving force of Eurostat, and in some cases technical and financial assistance as well. The criticisms include the burden that the European programme may impose on small NSIs or the proportion of national resources swallowed up by this programme.

11. As far as documentation is concerned, it would be useful to have compendia of national legislation relating to statistics and monographs describing the national statistical systems. With regard to statistical publications, there are considerable differences in dissemination policy. Whereas some countries distribute them widely free of charge, the NSIs which have financial autonomy are encouraged to obtain resources through the sale of their publications. However, the print runs are very modest; it is only in the Netherlands and Denmark (and to some extent in Luxembourg) that they assume significant proportions.

13.2 Strong points of the national statistical organizations

While this analysis may not enable us to decide who is the best pupil in the class, it nevertheless highlights certain strong points. However, we are entering the realm of assessments here, some of which may give rise to discussions.

1. The most indisputable strong point seems to be the scale of manpower and financial **resources**. Disregarding Luxembourg, which constitutes a special case, the table in Chapter 6 shows that three NSIs are relatively better-off than the others : Germany, Denmark and the Netherlands - this is probably an important factor in the quality of these countries' statistical output.

2. If we start out from the idea that statistics is required to make increasing use of information of administrative origin, it must be acknowledged that it is a matter of urgency to have single national **identifiers** of persons, firms and possibly other variables, as well as to be able to use them to gain access to administrative files and, where necessary, to interlink them. The four countries which have national identifiers - Denmark, France, Belgium, Luxembourg - therefore have an advantage over the other eight, where there are no single identifiers. The Danish system built entirely on this idea may even seem to be particularly strong; however, an in-depth study would still have to be carried out on the quality of the information obtained in this way, since it is a well-known fact that administrative definitions do not always tally with statisticians' requirements.

3. A NSI is probably all the stronger to the extent that its head or management has extensive powers with regard to the statistical programme, limited only by the opinions of the Higher Statistical Council, but not by the intervention of the political powers-that-be (Government and Parliament). In this respect, the Netherlands' Decree of 1899, which is still in force, probably serves as a model when it states that "The CBS shall collect, process and publish all statistical data that the Director-General considers useful for practical and scientific purposes".

4. Similarly, the *centralization* of statistics in a single institute or in a limited number of services seems more efficient than extensive decentralization, since the latter gives rise to tricky problems of coordination. The UK example of very large-scale decentralization is probably not an argument to the contrary, since the British are a people with a rare team spirit, and besides there is a slight tendency towards centralization.

5. Still on the same tack, a compact **organization chart** (Denmark, Netherlands, etc.), with a small number of directorates (maximum 6), is probably more efficient than a very extensive structure, even if the latter increases the chances of internal promotion.

6. Clear and simple provisions on statistical *obligation and confidentiality* constitute an asset : statistical obligation ought to be the rule and not the exception, and statistical confidentiality should entail only a minimum number of derogations; the involvement of representatives of businesses in decisions on derogations, as practised in France, is definitely a good thing.

7. The adoption of a multiannual statistical **programme** implemented by annual programmes, which is beginning to become widespread, is a factor of strength in that it forces the NSI to think about its future and to accept at least "moral" obligations.

8. Lastly, the co-existence within the same institute of the teaching of statistics, the production of statistics and their use for study purposes, as is the case in France, may pride itself on tremendous coherence and certainly has considerable advantages. However, it is not within everybody's reach. But an at least limited activity on the part of the NSI as far as studies are concerned is in all probability a positive factor, in that it forces the NSI to test its own statistics and to fill the gaps revealed in this way.

9. The efficiency of a statistical organization also depends on a psychological and political climate, a factor which is more difficult to pin down; some of its components are outlined below :

- the motivation of the managers, thanks to well-defined powers and responsibilities and to the absence of inhibiting interference from the public authorities;
- the assiduousness of the staff, thanks to a pleasant working atmosphere, promotions based on merit and seniority and not on political and trade union affiliations, and a motivating system of pay;
- a system of recruitment and in-service training that ensures qualification.

13.3 Main weaknesses

Detecting "weaknesses" in statistical organization is an even trickier task. However, as already stated, this analysis does not enable an overall judgement to be made on each statistical system but is aimed rather at pinpointing the strengths and weaknesses of a legal, political, financial, etc. environment over which in many cases the NSIs do not have any control. It is clear, moreover, that a particular weakness may be offset by strong points.

1. By symmetry with the previous section, it can be seen that the shortage of staff and financial **resources** is an obvious weakness. Judging by the tables in Chapter 6, several NSIs are well below the Community average in this respect : the United Kingdom, Greece, Spain, Portugal and Belgium. Our analysis should provide them with arguments for demanding additional resources. In the case of Belgium, this weakness is compounded by an insufficient proportion of university graduates and in the case of Greece by qualifications that are often inadequate owing to ill-considered recruitment made by the public authorities prior to the elections.

2. Other weaknesses arise, on the other hand, from the list of strong points.

A highly *decentralized* organization leads to the dispersal of effort, unless it is counterbalanced by the existence of a strong coordination power.

An insufficiently *hierarchized* internal organization will lack efficiency owing to the absence of coordination and clearly defined responsibilities. Is it necessary to remind ourselves of the case of Greece, where the top management posts are filled by election, which undermines the authority of those who occupy them.

It has been stressed previously that the obligation to reply to surveys ought to be the rule and not the exception. Similarly, a NSI ought to have control over its *statistical programme*, with the help of its Higher Statistical Council and within the bounds of the resources at its disposal. The requirement for Government approval of each new survey (Belgium, Ireland) and, even more so, the intervention of the legislature (Germany, Spain) appear to be a weakness, since such intervention causes detrimental delays, makes it difficult to draw up a programme of work and, lastly, is liable to politicize basically technical questions.

4. The developments in the field of *protection of privacy* have led to some weakening of statistics in a number of countries, but not all. It has been seen that, in the majority of cases, the authorities created by the protection laws confine themselves to protecting data without interfering in the internal management of statistics. In a few countries, however (Germany, France, Luxembourg and, outside the Community, Austria), such interference has become a source of irritation.

Furthermore, the constitutional or legal provisions that oppose the introduction of national identifiers represent an obstacle to the progress of statistical documentation.

If the fears which lie at the root of the prohibition of national identifiers and the interlinking of files for statistical purposes were well-founded, Denmark ought to be a country where personal freedoms were no longer protected. Since this is not the case, the experience of Denmark constitutes a refutation of these theories.

5. In the federal or quasi-federal States, the *division of statistical power* between the federal entity and the territorial subdivisions is definitely a weakness. It gives rise first of all to coordination difficulties in that the federal entity cannot impose a single programme; this is illustrated in Spain, where the statistical services of certain "Autonomous Communities" do in fact behave like independent bodies not subject to the influence of federal statistics. In *Germany*, we have seen how the combination of federalism and the principle of legality made possible the 1981-1983 anti-statistics revolution which led to the failure of the population census and the weakening of the statistical authority; in actual fact, the agitation would not have had the time to develop if it had not been for : 1. the requirement for a law ordering the census; 2. the delays due to discussions on the division of costs between the Bund and the Länder.

13.4 Towards an ideal NSI ? Some recommendations

Our choice is therefore henceforth mapped out : we must avoid the bad examples and imitate the good pupils. Of course, the road to Hell is paved with good intentions. We cannot change a political and social environment overnight. If we cannot issue a regulation, here at least are some recommendations.

1. There is general agreement on the need for **scientific** *independence* of statistics. What goes without saying goes even better if it is said. The first article of any statistical law ought to state that the compilation of statistics is based on the principles of impartiality, objectivity and scientific neutrality.

The question of the recipients and the purpose of statistical information also arises in this context. According to the most widespread view, statistics are not intended exclusively for the Government or even for the political powers-that-be in the wide sense, but they are an instrument of openness serving the citizen and democracy. Hence : *national* statistical institute and not **government** statistical service.

2. Following on immediately from this, it could be stated - which also goes without saying - that *statistical confidentiality* aims to protect respondents against any detriment and that there is no question of any individual data being divulged to third parties, *including the supervisory Minister and the other political authorities*. Derogations should only be granted with the agreement of the parties concerned, obtained either on a case-by-case basis or within a Higher Statistical Council if general derogations are involved.

3. As the NSIs are the best judges of the need for surveys, they should have control over the drawing-up of their *statistical programme*, in agreement with the Higher Statistical Council and subject to the resources available. No special authorization from the political powers-that-be (Government or Parliament) should be required for the individual surveys at national level. Only the annual statistical programme might need the approval of the executive.

European surveys would, however, continue to be governed by Article 189 of the Treaty.

4. Along the same lines as the autonomy of the NSIs, the *obligation to reply* to surveys ought to be a general legal principle and not an exception requiring special approval. It would be up to the NSI to decide on a case-by-case basis whether it intends to invoke this obligation or to rely on voluntary cooperation.

5. The experiments carried out by some NSIs with regard to *financial autonomy* are worthy of discussion since it might be useful to apply them across the board. At present, the Community's financial contributions to statistics do not always achieve their aim because certain NSIs cannot use them and this money disappears into the State's general coffers.

6. In our view, the practice of the *annual programme* of statistical work and the annual report to be submitted for the opinion of a Higher Statistical Council is an excellent method, essential also for the implementation of the European statistical programme. As we have seen, in certain countries it comes up against the requirement for prior approval of new individual surveys by the political authorities.

7. In the case of certain traditional organizational problems which have been under discussion for a long time, there are good arguments for and against, and the solution depends on national traditions and institutional factors. We could therefore fall back on national preferences for problems such as :

- the degree of centralization or decentralization;
- the extent to which a NSI should draw up studies on the basis of its own statistics;
- whether basically statisticians should be recruited (France) or whether experts from many special fields should be called in (Netherlands);
- the choice between free distribution of publications or selling them on a commercial basis.

There are nevertheless areas where this study puts forward new arguments.

8. As regards the *resources* of the national statistical systems, the tables in Chapter 6 provide at least the starting point for important research. The NSIs should find themselves on a roughly equal footing as far as their resources are concerned, relative to the population of course. Some of them need an increase in staff.

9. The setting-up of a system of *national identifiers*, which itself is a basic prerequisite for a system of administrative and statistical registers, is a logical requirement of the rationalization of government. Although the potential dangers that this entails for individual freedoms call for in-depth analysis, the experience of Denmark proves that it is possible to devise a solution accommodating both efficiency and the upholding of freedoms.

10. Along the same lines, it has to be acknowledged that the activity of the institutions responsible for data protection has become a source of concern and irritation for the NSIs of some countries, whereas this is not the case in others, although it does not mean that citizens' freedoms are threatened in the latter group. The scales have tipped too far towards protection.

ALPHABETICAL INDEX OF THE COMPARATIVE STUDY

European Communities – Commission

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