

State, Economy, and Society in Western Europe 1815 – 1975

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A Data Handbook in two Volumes

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and

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Volume I

The Growth of Mass Democracies and
Welfare States

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VOLUME I

The Growth of Mass Democracies and Welfare States

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VOLUME II

The Growth of Industrial Societies and Capitalist Economies

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PREFACE

This book is about history and it has a history of its own. More than one observer, sympathetically or ironically, has called it an "enterprise of madness", and telling the project's story may help to convey its motives and objectives, however one might label them.

The story started in August 1971 in Lausanne at a conference organised by Stein Rokkan under the auspices of the International Social Science Council (ISSC) in co-operation with UNESCO, and also joined by the European Consortium for Political Research (ECPR). This "Workshop on Indicators of National Development" was to review endeavours to build up data resources for comparative studies of national development and to link up this work on historical data with the attempts to construct systems of social indicators. It represented a further and important link in a chain of collective efforts forged by Rokkan to advance comparative research in the social sciences.

The workshop followed another conference which had been organised a year before by UNESCO at Cerisy-la Salle in France to review progress toward the formulation of coherent models for the explanation of interactions among a wide range of variables in the process of state formation and nation-building. There had been a wide consensus at the conference that in a next round the efforts on the theoretical front should be matched with corresponding efforts on the data resource front. This was seen as a 'sine qua non' of further progress towards an understanding of the extraordinary variations across the world in the interaction among economic, social, cultural and political components of growth.

The themes of the Lausanne Workshop, which was attended by forty-four social scientists from eleven European countries, the United States and three Latin American countries, were grouped under three main headings: cross-national historical files; within-nation archives; social indicator systems. It was under the first heading that Wolfgang Zapf and I reported on our QUAM-Project (Quantitative Analysis of Modernisation) at the University of Frankfurt, a project essentially geared to the testing of models of modernisation and mass mobilisation during the century after the Napoleonic wars.

In his "Materialien zur Theorie des sozialen Wandels" (Materials for the study of social change) of 1967 Wolfgang Zapf had presented what was then probably the first systematic time series data collection. It embraced a 'decade collection' from 1820 to 1960 including 38 indicators for ten countries (Great Britain, France, USA, USSR, Germany, Japan, Spain, Argentina, India, China), and a 'year-to-year collection' from 1860 to 1960 including six indicators measuring industrialisation, international involvement, and political stability for four countries (Great Britain, France, USA, Germany). Between 1969, when I started to work with Wolfgang Zapf, and 1971 a 'refined collection' from 1815 to 1965 was compiled, consisting of more sophisticated indicators of social mobilisation for six countries (USA, USSR, Japan, Germany, France, United Kingdom). Finally, in 1971, a fourth collection was added consisting of indicators of urbanisation and literacy from 1850 to 1965 for all countries of the world.

The QUAM-Project had been stimulated by two streams of study in the social sciences since the 1950s, both essentially American: the modernisation theory (a common label for relatively disparate approaches to the theory of development), and the efforts to establish cross-national data collections beginning in the late 50s and early 60s. Underlying much of this work was the, perhaps obsolete, idea that one could discover 'general laws' in the evolution of global societies, and the belief that in this enterprise the collection and analysis of quantitative data was of crucial importance.

Since the early 70s or even late 60s, the criticism of the 'modernisation theory' has mounted and the optimistic hope of attaining the envisaged goals has somewhat diminished. This period, however, has left an important stamp on macro-sociology: the conviction that in this field, too, systematic empirical research is essential and possible. The renaissance of historical sociology has somewhat changed the orientation and emphasis of research towards a more careful and less abstract analysis of variations in more specific institutional and 'geographical' contexts.

My first encounter with Stein Rokkan was crucial for the new project which finally led to this book: his enthusiasm incited our energies and channelled them in different directions. It was at the Lausanne conference that I envisaged, however vaguely, a chance to combine my interest in the study of global societies, my preoccupation with European history, and my preference for a systematic empirical approach in macro-sociology in a new enterprise on a broader basis and with a longer time perspective.

In the course of the next year this idea took shape and developed into a plan and proposal for a project with the acronym HIWED (Historical Indicators of the Western European Democracies). Without Wolfgang Zapf's patronage, I would never have been able to start this project, and I would like to express my warmest thanks to him. He was an

altruistic advisor and relentless promotor of us 'young folk' as we then were. We directed the project together at the University of Mannheim during its first phase from 1973 to 1976. It was generously funded by the Stiftung Volkswagenwerk and we have been very fortunate in that this foundation was prepared to finance also a second phase from 1976 to 1979 in which the project moved with me to the University of Cologne. I am grateful for this opportunity to praise the Stiftung Volkswagenwerk: there is certainly no other foundation in Europe which has done more for comparative research and there may be none which is less bureaucratic. Special thanks go to Helga Junkers and Otto Häfner at the foundation for their personal commitment and unusual patience.

The HIWED-Project had two objectives, both influenced by Rokkan's work. First of all, to produce a data handbook on Western Europe since the Congress of Vienna covering major political, social, and economic changes in the last century and a half. With this we wanted to open up new sources and to lay a more solid foundation for a historical, comparative, and interdisciplinary, in one word macro-sociological, study of that territorial diversity which is called Europe. Rokkan always wanted a 'thick book'. Here it is. It will be the first and programmatic publication in a series called European Social Science Studies.

The second objective was concerned with Rokkan's theory of European political development in which he distinguished between four basic processes: state formation *strictu sensu*, nation-building, the institutionalization of political rights (mass democracies), and the institutionalization of social rights (welfare states). Since in his own empirical works he was mainly concerned with a study of the evolution of mass democracies and the processes and problems of nation-building, we wanted to push forward the comparative analysis of the evolution of welfare states in Europe. Some of the analyses undertaken have already been completed and will be published in the above-mentioned series.

When we started our work on the handbook in 1973 we did not realize what would await us. I must confess, that looking back I would not try it again. There were too many hurdless, detours and blind alleys, simply too many years of 'deferred gratification'. The first discovery we made was that in opening up the statistical sources we had to start practically from scratch. Thus, we had to squander most of our initial efforts in bibliographical work and the building up of an archive of micro-fiches and foto-copies for which we had to order literally thousands of books from other libraries in Germany or from abroad. Without the exploitation of many devoted students we would not have succeeded and here I would like to extend warm thanks to Elisabeth Bieling, Petra Dunkel and Maria Müller who worked with us in Mannheim, and to Michael Sondermann, Karl-Heinz Korn and Hans Jäger who worked with us in Cologne. Above all others I would like to thank 'Hansi' who was the life and soul of the project.

The first product of these efforts was a bibliography of the major statistical sources in Europe since the early nineteenth century which also included an institutional history of official statistics. The bibliography was completed in 1975 and published in 1977 (*Quantitative Historical Sociology*. Current Sociology 23.2. Mouton, Paris). A bibliography of all census publications in Europe since 1801 was added later. I would like to extend my warmest thanks to Regina Kays, the librarian who worked with me on setting up the bibliography; the entire project owes a great deal to her efforts.

On this basis then we proceeded to our essential task, the production of our handbook. It was to be a truly collective effort. If we take into account the fact that research undertaken in universities is always only part-time work, then all project members taken together worked about 35 years on this book; and this, perhaps unfairly, excludes student and secretarial work. Only a fool could have done this work alone. Even so, many of us occasionally had the feeling of fooling away our lives. These high investments require a more detailed description of the individual contributions. However, it cannot do justice to the enthusiasm and deprivations of all project members.

As a general rule, each project member collected data only or mainly in the fields of his analytical interest. Thus, Jens Alber, a long-standing friend and colleague of mine, and a sociologist like myself, has created a data collection on the evolution of the modern social security systems, and at the same time, he completed in 1979 a thesis on the same topic which has been published in the above mentioned series. Being already involved in the preparatory stage of the project, he had to carry much of the initial burden in creating the project's infrastructure, and altogether he worked with me on the book for eight years. In addition to his part on social security, he produced the part on governmental coalitions and contributed to that on the labour force.

Franz Kraus, an economist, joined our project during its first year in Mannheim. Initially, he worked on the national product data which, beyond their intrinsic interest, have been most useful for the calculation of many indicators in other parts of the handbook. When he moved with the project to Cologne, he turned to his main field of interest, the study of income distribution and redistribution. On the basis of a painstaking and painful scrutiny of a myriad of tax statistics, he established what will be the major collection of historical data on income distribution. He is still working on his thesis and is at the same time preparing a separate and voluminous handbook with his much more detailed data on income distribution.

Jürgen Kohl, a sociologist, participated directly in our project during its first phase in Mannheim. He then moved to the University of Bielefeld, but continued to work with us. At the beginning, he worked mainly on the data of enfranchisement, electoral turnout and changes of the electoral systems which were included in the respective part of the handbook. Thereafter, he concentrated all his efforts on the collection and analysis of public expenditure data. In 1979, he completed a thesis on this topic which will be published in this series.

During the project's first phase in Mannheim, three students made important contributions. Elisabeth Gransche wrote a thesis on housing conditions in Europe since the First World War, Winfried Pfenning one on trade unions and strike patterns since the end of the nineteenth century, and Kurt Seebomh one on the evolution of taxation since the mid-nineteenth century. Both Pfenning and Seebomh went with the project to Cologne to continue their studies. Kurt Seebomh, an economist, extended and refined his pioneering collection of tax statistics and put a great deal of effort in to the completion of our demographic data. Winfried Pfenning, a sociologist, extended his work on the development of trade union membership and industrial conflict, and also made major contributions to the parts of the handbook covering labour force and urbanisation. Since early 1979 he has been responsible for our computerized 'Western European Data Archive' (see below).

In spring 1977, after the project had been moved to Cologne, Richard Eichenberg, a political scientist from the University of Michigan, Ann Arbor, came to strengthen our team during the project's second phase. Eichenberg contributed the part on public bureaucracies. More importantly, however, he laid the basis for our computerized data archive and intensified our contacts with the central archive of the Inter University Consortium for Political and Social Research (ICPSR) at his original university in Ann Arbor.

This archive has been most helpful in computerizing our complex cross-tabulations of age by sex and civil status for 225 population censuses. These tables, which are not included here but will be published separately, have been important for calculating various indicators in the handbook. My warmest thanks go to Catherine Kelleher who 'lent' us one of her best young scholars, and to Jerry Clubb who gave a great deal of support to the creation of our computer archive in its initial phase.

Finally, in 1978, Reinhard Schneider, a sociologist at the University of Bielefeld, joined our project as an external member. He has been working on a broad comparative study on the evolution of public educational systems in Europe and has contributed the corresponding part of the handbook. In the collection of the quantitative data he built on some earlier efforts in Mannheim and Cologne, especially by Joachim Heinlein.

In our work on the handbook we relied mainly on statistics collected and published by public authorities, mostly national statistical offices and other national agencies, and occasionally international organizations. In a few cases, however, and above all in the parts on public expenditures and economic growth, we have used data collected and analysed by other social scientists or economists. These sources are documented in the appendix of the second volume. Usually, the range of these works is relatively limited with respect to the number of countries included, the time period covered, and their number of variables. There were, however, two major exceptions.

David Singer was kind enough to leave us the data on military personnel for the period 1850 to 1970 which had been collected in the Correlates of War Project directed by him at the University of Michigan. They are published here for the first time. I am most grateful for this gift and would like to thank him and his team for their support. The other data collection which we made use of has already been published, and is the most useful compilation of historical statistics on elections by Tom Mackie and Richard Rose (*The International Almanac of Electoral History*. London, Macmillan, 1974). As we did not want to exclude this essential information from our handbook, we asked them to permit the publication of their tables with the percentage distribution of votes and seats. We are most indebted to them for their kind permission.

A few words about my own role in the project. I have been a slave driver but the handbook has enslaved me too. To a varying extent, I have been involved in the process of defining the indicators, searching for sources and collecting data for practically all parts of the handbook, and some I have contributed myself. I have checked most, or at least many, of the data in process of their collection as well as in the proof-reading stage, but this does not diminish the responsibility of the other project members. The conception, composition and text of the handbook are essentially mine, but this does not detract from the collective character of the book.

The handbook assembles data on political, social, and economic developments in Western Europe since the Congress of Vienna. This preliminary definition of its contents immediately requires some specifications and qualifications. The first problem is space. Not only for me, an Austrian by birth and nationality, is 'Western Europe' a vague concept. In its present use it is clearly a product of the Second World War, before which it was a more limited term which has widened its range only by incorporating parts of 'Central Europe' a crucial concept in European history (see the Introduction below).

In defining the space covered by our handbook we have made the following essentially pragmatic decisions:

- From 1815 to 1918 we include the Austrian part of the Austro-Hungarian monarchy as defined by the 1867 constitution.
- We thus exclude to the east: the Hungarian kingdom; the European territories of the Ottoman Empire, though all had gained independence before the First World War; the Russian Empire with the exception of Finland, though it became independent only in 1917.
- After World War One we include among the succession states of the Austro Hungarian monarchy only the Republic of Austria, and we also exclude Poland and the Baltic states which became independent in 1918.
- Unfortunately, we cover (with some exceptions) Italy only since 1861 and Germany only since 1871. The great

number of Italian and German states and territories as well as the relative scarcity of statistical sources made this regrettable decision necessary.

- An even more lamentable omission is the exclusion of Greece, Portugal and Spain. There are some grounds for arguing that these countries belong, or belonged, to a lesser extent to 'Western Europe' but their exclusion is mainly due to our insufficient knowledge of the three languages.
- Finally, we do not include Luxembourg and Iceland, as well as the other smaller European 'states', for pragmatic reasons only, though at least Iceland has always incited our curiosity.

The territorial changes which the countries included in our study have undergone between 1815 and 1975 are described in chapter I, part 1. In the tables and graphs we use the following abbreviations:

AU Austria	IK Ireland	EW England and Wales
BE Belgium	II Italy	SO Scotland
DE Denmark	NE Netherlands	GB Great Britain
FI Finland	NO Norway	NI Northern Ireland
FR France	SW Sweden	UK United Kingdom
GE Germany	SZ Switzerland	

With few exceptions, all data in the handbook are national data, i.e. they refer to nation-states. They are either (quantitative) aggregate data or (qualitative) institutional data. For the latter (e.g. institutional traits of social security systems) the nation-state is the natural 'unit of analysis'. This is less true for aggregate data. Often national averages hide important internal, regional or other, differences or the nation-state may not be the adequate 'unit of analysis' as in the case of the international division of labour and economic interdependence. Future data collections will certainly have to include other, subnational, international and supranational, units. For most variables, however, the nation-state still remains the crucial 'level of aggregation'.

The maximum time period covered is 1815 to 1975. The Congress of Vienna was chosen as our starting date because it defined or redefined, after more than two decades of revolution and war, our units of analysis, the nation-states. With the exception of Belgium which became independent in 1830, no major territorial change occurred in 'Western Europe' until the Italian and German unifications. The choice was also dictated by the availability of data. Before 1815, we find hardly any national statistics; in most European countries the development of official statistics did not 'take-off' until 1818. 1975 was chosen as finishing date when we still thought that we could complete the handbook much earlier than we actually did.

Of course, relatively few time series really go back as far as 1815, most start only in the second half of the nineteenth century. The reasons for this are simple. Obviously, some series cannot start before the institutions to which they refer were created: no electoral results without suffrage, no divorce rates without legalising divorce, no pension figures without social security systems, etc. Equally obviously, other series can only commence when the respective statistics were collected for the first time. The initiation of population censuses and the establishment of parish or civil registration has been most important in this respect. Most of our countries started censuses in the early nineteenth century, but many items such as occupation, employment status, language, religion, citizenship or even housing conditions were usually included only later. In other cases, public authorities collected statistics but did not publish them. This holds true above all for financial statistics before governments were forced by parliaments to lay open their budgets. A final limitation exists where we had to rely on secondary sources, on the historical reconstruction of national accounts statistics. Thus, with only few exceptions, our time series start when the respective institution was created or when the respective statistics were collected for the first time.

The structure of the handbook has changed several times in the course of the past nine years, often because we realized that some objectives had been unrealistic, sometimes because we discovered new possibilities. As it is today, the structure mirrors more a need for numerical aesthetics than for logic. Some logic does exist, however.

The handbook is divided into two volumes of equal length. The first is entitled 'The Growth of Mass Democracies and Welfare States'; the title of the second volume is 'The Growth of Industrial Societies and Capitalist Economies'. With this sequence of the two volumes we want to indicate that we follow neither the Durkheimian nor the Marxist tradition. Both see the 'state' more or less as an appendix to some more 'fundamental' structure, be it the division of labour or the mode of production. But the modern state has shaped the structure of social and economic relationships at least as much as it has been influenced by them.

The first volume contains basic data on the Western European nation states (external boundaries, population by nationality, internal cultural heterogeneity), the evolution of mass democracies (suffrage, electoral results, parliamentary seats, government coalitions), the growth of public budgets (taxes and expenditures) and public bureaucracies (civil and military personnel), and finally, the development of welfare states (public education and social security systems). There are some gaps, among the many, which we greatly regret. We would like to have included data on political parties, social movements, collective violence and political instability and to have incorporated more aspects of the welfare

state, especially the public health sector; but all this proved to be unrealistic, given the number of countries and the time span covered in the study.

The second volume on social and economic developments is necessarily more selective. As B. R. Mitchell's great handbook on 'European Historical Statistics 1750–1970' already covers a broad array of economic statistics, we confined ourselves in this respect to indicators of economic growth (national product figures for various concepts and national product by origin and use) and measures of income distribution. Thus, our handbook contains no production figures and, though regrettable, no indicators of unemployment and inflation. For the same reason, we excluded statistics on transport and communication. Like Mitchell, we did include, however, the essential demographic data but put much more emphasis on the calculation of comparable indicators. In addition, the second volume gives data on the process of urbanisation and changing housing conditions, the structure of the labour force, the development of trade unions, and the pattern of industrial conflict.

Besides the many unavoidable gaps, the handbook has one systematic lacuna. It assembles essential information for comparing developments of the Western European states, societies, and economies, but it does not touch on the political, social, and economic relationships between them: the exchange of goods, transactions of capital, and migrations of workers, overseas emigrations and European population displacements, students studying abroad and cross-national communication, diplomatic relations and military conflicts. Originally, we had hoped to add a third volume to include these data, such as those concerning external trade, overseas emigration and wars, relatively easily accessible, but a more comprehensive collection of data on inter-state exchanges and relations in Europe is still lacking.

As to the formal structure, both volumes consist of five parts with two chapters each. Thus, the handbook contains altogether twenty chapters which are grouped into ten parts. Both volumes have a longer historical-sociological introduction, and each single chapter starts with an explanation of the tables and graphs presented and a short discussion of methodological problems involved.

The documentation of such a work poses a major problem and requires some explanation. From the very beginning, we decided that in principle each datum should be reproducible implying that we document not only its source(s) but also the calculations and estimates we made. In this way we hope to facilitate the process of accumulation in future research. Initially, we produced and distributed several 'Data Reports', each of 100–200 pages, in which specific data sets were documented (enfranchisement, taxes, social insurance, public bureaucracies). Later on, however, we decided to switch completely to a computer-readable documentation.

In early 1979, we started, in collaboration with the Zentralarchiv at the University of Cologne, the Western European Data Archive Project (WEDA), again funded by the Stiftung Volkswagenwerk. The computerization of all HIWED data (many more than included in the handbook) and of the extensive documentation formed the major part of this project. The Zentralarchiv was a very generous host of this project, and I am grateful for the opportunity to thank Maria Wieken, Erwin K. Scheuch and above all Ekkehard Mochmann for their support.

Obviously, an inclusion of the documentation would have enormously expanded the handbook, restricting its convenient use and raising its price. Thus, we have tried to keep the number of annotations in the book as small as possible, and we offer instead separate documentation which will be available through the ICPSR at Ann Arbor for the American user and through the Zentralarchiv in Cologne for Europe. The details of this documentation will be found in the appendix to the second volume describing briefly the major primary and secondary sources we have used.

The data collection was almost finished in 1979 and we thought that we could publish it soon after. But we had grossly underestimated the tedious work of typing hundreds of tables and drawing the numerous graphs. We had decided to do this work ourselves in order to avoid excessive costs. Four women suffered from this decision: Carla Heusser and Ursula Feger at the University of Cologne, Dagmar Alber and Ursula Nocentini at the European University Institute in Florence where the manuscript was completed. Knowing how dreadful this work was (I had myself to do most of the proof-reading) I can only thank them most warmly.

Lastly but not least, I want to thank my wife, although she is one of those modern women who believe that their husband's work is purely entertainment. Generally only half-true, it was even less so in this case. However, she had to tolerate a husband whose mood steadily declined in the nine years of working on the book.

This book is dedicated to Stein Rokkan. The permanent encouragement he gave us would be more than enough to justify the dedication. But we owe him much more: intellectual leadership through personal authority and friendship. The joy and relief which accompanies the completion of this book is blended with a sad thought that we cannot show the book to him; he died before we could finish it.

Peter Flora

Florence, Summer 1982

This chapter contains data on the total number and functional breakdown of government personnel at the central government level and at all levels of government (general government). Figures for general government personnel are generally available for the period 1880–1970, but those for central government are more limited for some countries. Lacking official payroll or staff statistics, the occupational enumerations contained in decennial or quinquennial population censuses have been used as the next best source of employment data. Most European governments began relatively sophisticated occupational censuses between 1860 and 1880. ‘Government employment’ or at least the traditional ‘administrative’ sectors of government has historically been among the five or six major economic sectors in the censuses. However, it is only quite recently, that census results for public employment are reported by level of government. Since central governments began publishing their employment data relatively late, the coverage at this level is more limited.

Occupational censuses normally include both full-time and part-time workers, as well as the temporarily unemployed. The inclusion of part-time workers obviously introduces some overestimation of the number of civil servants which it is impossible to specify precisely. Temporarily unemployed are allocated to an occupation in practically all censuses with the exception of Belgium 1947–1961, France 1866 and 1886, the Netherlands 1847–1960, Switzerland 1960 and 1970, and Great Britain 1931 and 1938. The data for the period of the Great Depression suggest, that persons discharged from employment were not included.

With the exception of four major categories of personnel, general government employment is defined here as “full-time and part-time employees of government at all levels, including those temporarily unemployed”. For mainly methodological reasons, personnel in hospitals, welfare institutions, social insurance agencies, and nationalized industries have not been included. Employment in public hospitals is usually listed outside the government sector in occupational censuses; normally in a combined category for public and private health professions. Similar problems arise with employees in welfare functions due to the distinction made between direct, government agencies (e. g. public assistance offices) and institutions outside the normal administrative stream (e. g. homes for the elderly). The staff in most European social insurance agencies, are rarely civil servants and thus do not appear as such in the census results. Finally, data on nationalized industries and public utilities (electricity, gas, and water) have not been included, largely because they are difficult to find and to compare (some data on employment in miscellaneous industrial enterprises and public utilities as well as in the health sector are included in the data file of the Western European Data Archive).

For each country, the first table gives the data on the total personnel of general government and their functional breakdown into four categories with the following standard definitions: *general administration* = “civilian employees in public administration, excluding employees in institutions and quasi-public agencies”; *education* = “public education, including clergy employed by government”; *post* = “employment in post, telephone, and telegraph, including appropriate ministry”; *rail* = “employment in public transportation (rail and local), including appropriate ministry”. Major deviations from these standard definitions are listed in the following synopsis. Besides the totals and the functional breakdown, the figures of general government personnel and personnel in general administration in the first table are also expressed as percentages of total population and labour force to make them more comparable (for these data see the second volume of the handbook).

The second table, for each country (with the exception of Norway), presents data on central government personnel. In principle, it has the same structure as the first table, but gives in addition a more detailed breakdown of the personnel in the ‘classical ministries’. Central government data present far fewer problems of comparability, but they are usually available for shorter periods only. Central government personnel is defined here as “full-time civilian employees of central government, including Ministries of Defense, but excluding armed forces proper”. Postal, Education, and Transport ministries are treated as part of these categories and not as part of ministry personnel. For the single categories, major problems of comparability are notified in footnotes to the second table.

The concluding graphs demonstrate, for each country, the longterm relative growth of public employment (general and central government personnel as percentages of total population and the labour force) as well as its structural change (in terms of the changing shares of administration, education, post, and rail in general government employment).

General Government Personnel: Synopsis of Deviations from Standard Definitions

A d m i n i s t r a t i o n

	Courts	Police	Total in Administration	Education	Post	Transport
Austria		1880-1910: includes gendarmerie		1880-1934: includes private 1923-1971: includes clergy		includes local transport
Belgium		includes firemen	includes Defense Ministry 1970-1975: includes employees in insti- tutions	includes clergy		includes Ministry of Transport excludes local transport
Denmark	sum of courts, police and prison guards			includes private		includes local transport
Finland				1880, 1910: in- cludes private 1920, 1930, 1940: includes clergy		excludes local transport
France			1947-1969: includes Defense Ministry 1947-1969: includes public hospitals	1866-1901: includes clergy		excludes local transport
Germany		1950-1976: includes firemen	1958-1976: includes Defense Ministry 1950-1976: includes employees in insti- tutions 1950-1976: includes local transport		includes Postal Ministry	to 1939: includes local transport (excludes there- after) 1950-1976: includes Ministry of Trans- port
Italy		includes carabinieri	includes Defense Ministry includes employees in institutions			excludes local transport
Nether- lands	sum of courts, police, prison guards and firemen		1970, 1975: may in- clude Ministry of Defense	includes subsi- dized and private		includes local transport
Norway	sum of police and courts			includes private		includes local transport
Sweden	1950-1970: courts and prison guards	to 1950: police, prison guards and firemen		1880-1920: includes private		includes local transport
Switzer- land				1860-1910: may in- clude some private		includes local transport

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1. GENERAL HISTORIES, BIBLIOGRAPHIES, ALMANACS

1.1 Histories

The development of official statistics in most European and a few non-European countries may conveniently be reconstructed using the following four publications, all of which give a description of the evolution of statistical institutions, activities and publications for each particular country. Whereas the first book has only one author, the other three are composed of chapters written by country experts:

- 1 Boeckh, R. *Allgemeine Übersicht der Veröffentlichungen aus der administrativen Statistik der verschiedenen Staaten*. Berlin, Schade, 1856. 65 p.

All European countries including the various German and Italian states, the United States of America and some information on Latin America.

- 2 Société de Statistique de Paris. *Le 25^e anniversaire de la Société de Statistique de Paris*. Paris and Nancy, Berger-Levrault, 1885. 411 p. Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Sweden, and Switzerland.

- 3 Koren, J., ed. *The History of Statistics*. New York, Macmillan, 1918. XII + 773 p.

Austria, Belgium, Canada, France, Germany, Great Britain and Ireland, Hungary, India, Netherlands, Norway, Sweden and United States.

- 4 Institut International des Sciences Administratives. *Monographies sur l'organisation de la statistique administrative dans les différents pays*. Brussels, 1933 and 1938. 2 vols.

Austria, Czechoslovakia, Denmark, England, Estonia, Finland, France, Greece, Ireland, Italy, Netherlands, Rumania and some non-European countries.

The best and most embracing account of the evolution of international statistics can be found in:

- 5 *Statistische Hefte. Cahiers Statistiques. Statistical Papers*. 1 (1/2), 1960.

The entire volume is devoted to 'International statistics, history and organisation' and contains four articles: 'On the concept of international statistics' (G. Menges), 'An essay on the history of international statistics from forerunners in ancient times to the inception of the League of Nations' (G. Menges), 'Statistics in international organisations in the days of the League of Nations' (D. Bott) and 'Statistics in international organisations since the end of the Second World War' (J. Großmann). German text, English and French summaries.

For a short overall history until the International Conferences of 1947 cf.:

- 6 Campion, H. 'International statistics'. *Journal of the Royal Statistical Society*. 112 (2), 1949, ser. A, 105-134.

Finally, two volumes which combine a history of official statistics with a history of statistical methodology:

- 7 Meitzen, A. *Geschichte, Theorie und Technik der Statistik*. (History, theory and methodology of statistics.) Berlin, Cotta, 1886. IX + 214 p.

It has one extensive chapter on the history of official statistics and contains a bibliography giving the most important periodical statistical publications for almost all countries of the world.

- 8 Westergaard, H. *Contributions to the History of Statistics*. London, King & Son, 1932. VII + 280 p. Reprinted 1970: The Hague-Paris, Mouton.

The best combined history of statistical methodology and official statistics covering the period from Political Arithmetic in the 17th century and even earlier until the end of the 19th century.

1.2 Bibliographies

Lists of statistical bibliographies are given in the two following books; the first lists older bibliographies, but the second is more extensive:

- 9 Besterman, T. *A World Bibliography of Bibliographies*. Lausanne, Societas Bibliographica, 1966. 5 vols.

- 10 Winchell, C. M. *Guide to Reference Books*. 8th ed., Chicago, American Library Association, 1967. 3 supplements. XX + 741 p.

Until World War I printed catalogues of the central statistical libraries were the only general bibliographies. The first among them were published in Belgium in 1843, in Sweden in 1855, in England (Board of Trade) in 1866, in Prussia in 1874 and 1879, in Denmark in 1880 and in England (Royal Statistical Society) in 1884. Here, only the catalogues of the two most important statistical libraries are given:

- 11 *Katalog der Bibliothek des Königl. Statistischen Bureaus in Berlin*. (Catalogue of the library of the Royal Statistical Office in Berlin.) Berlin, Verlag des königlichen statistischen Bureaus. Vol. 1, 1874; vol. 2, 1879.

- 12 *Catalogue of the library of the Royal Statistical Society*. 3rd ed., London, The Royal Statistical Society, 1921. 274 p.

After the turn of the century the printed catalogues were replaced by accession lists and current bibliographies. The first important one was:

- 13 *Bibliographie der Sozialwissenschaften*. (Bibliography of the social sciences.) Monatshefte der Buch- und Zeitschriftenliteratur des In- und Auslandes über Gesellschaft, Politik, Wirtschaft, Finanzen, Statistik, ed. by the Internationales Institut für Sozialbibliographie and since 1925 by the Statistisches Reichsamt. 1-39, 1905-1943. Index 1-32, 1905-1936.

Monthly catalogues of books and journal articles, first of international publications but in the 1930's more restrained to German literature.

At this time the International Institute of Statistics began its bibliographical work in:

- 14 *Revue de l'Institut International de Statistique*. 1-, 1934-.

Until 1966 this quarterly included a bibliography of practically all statistical publication, at the beginning 4/5 non-methodological, at the end 1/2.

For the time between the two World Wars four single publications should be mentioned in addition:

- 15 *London Bibliography of the Social Sciences*. London, The London School of Economics and Political Science, 1931, vol. 1-3; vol. 4. 6 supplements.

Being the subject catalogue of the British Library of Political and

Economic Science, it is an excellent guide to statistical books and articles, especially for the late 19th and the early 20th century.

- 16 Gregory, W. *List of the Serial Publications of Foreign Governments 1815-1931*. New York, H. W. Wilson, 1932, 720 p.

It is the most comprehensive list not only of statistical but of all serial publications of national governments and provinces which are to some extent self-governing. Its disadvantages are, however, that titles are not translated and no annotations are made.

- 17 Caumartin, J. *Les principales sources de documentation statistique*. Paris, Dunod, 1935. 38 p.

Although mainly on France, it includes a list of statistical publications for 57 countries.

- 18 Verwey, G.; Renooij, D. C. *The Economist's Handbook: A Manual of Statistical Sources*. Amsterdam, 1934. 460 p.

A very useful but more specialist bibliography classifying existing sources of the main countries and indicating where statistical data on any given economic subject may be found.

After World War II the U.S. Library of Congress and the Bureau of Census sponsored the Census Library Project for the purpose of securing bibliographic control of the major statistical publications of the world. The three most important works, edited under the general title 'U.S. Library of Congress. Census Library Project', are:

- 19 Dubester, H. J., ed. *National Censuses and Vital Statistics in Europe 1918-1939*. Washington, Library of the Congress, 1948. Supplement 1940-1948. VII + 215 p.

- 20 Carter, P. G., ed. *Statistical Yearbooks*. An annotated bibliography of the general statistical year-books of major political subdivisions of the world. Washington, Library of the Congress, 1953. VIII + 123 p.

- 21 Carter, P. G., ed. *Statistical Bulletins*. An annotated bibliography of the general statistical bulletins of major political subdivisions of the world. Washington, Library of the Congress, 1954. X + 93 p.

The first book gives very detailed information on all national censuses in Europe concerning population and occupation, housing, agriculture and livestock, industry and commerce. The other two are major supplements to Gregory.

- 22 Ball, J. *Foreign Statistical Documents*. A bibliography of general, international and agricultural statistics, including holdings of the Stanford U. Libraries. Stanford, The Hoover Institution on War,

Revolution and Peace, 1967. VII + 173 p.

A bibliography which is a convenient guide for publications of smaller countries after World War II but which is not very complete and gives no annotations.

1.3 Yearbooks and almanacs

There is a considerable number of older and newer international yearbooks and almanacs which also contain statistical data. An extensive list of them is given on pp. 75-81 in:

- 23 Gurr, T. R. *Politimetrics: An Introduction to Quantitative Macropolitics*. Englewood Cliffs, N.J., Prentice-Hall, 1972.

Here, only two are mentioned; undoubtedly the most important one

- 24 is *The Statesman's Yearbook*. Statistical and historical annual of the states of the world. London, Macmillan; New York, St. Martin's Press, 1-, 1864-.

It certainly is the best and most convenient source for national data, political, economic, military, educational, government finance, etc., for all countries and territories of the world, and it gives excellent bibliographic guides to primary sources.

- 25 *Almanach de Gotha*. Annuaire généalogique, diplomatique et statistique. 1-, 1763-.

This publication is less important and reliable, but it includes statistical data as early as around 1820.

2. NATIONAL STATISTICS

2.1 Austria

There are several histories of government statistics in Austria. The three most important sources are:

- 26 Inama-Sternegg, M. von. 'Die Statistik in Österreich' (Statistics in Austria), pp. 315–345 in: Société de Statistique de Paris, ed. *Le 25^e anniversaire de la Société de Statistique de Paris*. Paris and Nancy, Berger-Levrault, 1885.

This article contains (a) a detailed history of government statistics since the establishment of a statistical bureau in 1829, (b) a description of the organization of government statistics in the 1880's including a detailed account of the activities in the different fields of statistics, and (c) a list with all publications of the statistical bureau or the central commission until 1885.

- 27 Meyer, R. 'The history and development of government statistics in Austria', pp. 85–122, in: Koren, J., ed. *The History of Statistics*. New York, Macmillan, 1918.

Although less detailed than [26] this article is useful, because (a) it gives the basic information on the history until World War I and (b) it describes the activities of the statistical offices of the central departments and of the self-governing bodies.

- 28 *Beiträge zur Geschichte der Statistik in Österreich*. (Contributions to the history of statistics in Austria.) Den Teilnehmern an der 14. Session des Internationalen Statistischen Instituts gewidmet von der K.K. Statistischen Zentralkommission anlässlich der Feier ihres 50-jährigen Bestandes. Brünn, Irrgang, 1913.

Besides a history of the central commission this jubilee volume contains special chapters on the development of statistics concerning emigration, currency, public finance, criminality and labour.

For the history of population and economic statistics in the 18th century see [29].

- 29 Großmann, H. 'Die Anfänge und geschichtliche Entwicklung der amtlichen Statistik in Österreich' (The beginnings and historical development of official statistics in Austria). *Statistische Monatsschrift*, n.s. 21, 1916: 331–423.

Already in the second half of the 18th century population censuses were carried out in Austria, and a regular investigation of the movement of population was institutionalized in 1762. But it was not until the separation of the patrimonial dominions from the Roman-German Empire and their inclusion in the Empire of Austria that a continuous organization of statistics in all possible branches of administration was started. In 1817 a system of conscription was enacted which included a regular enumeration of population; an attempt to create a topographical office of statistics failed, however, in 1819. In 1829, finally, an administrative service was established which had to organize a regular report of the government departments:

- 30 *Tafeln zur Statistik der österreichischen Monarchie*. (Statistical tables of the Austrian monarchy.) 1–21, 1828–1848; n.s. 1–5, 1849/51–1860/65.

These 'Statistical tables' remained the authoritative Austrian statistics until 1865. At first they were kept strictly secret, but soon after the establishment of a central bureau of statistics, the 'K.K. Direction für administrative Statistik', in 1840, parts of the tables were published; full publication came in 1848. In 1852 the central bureau started a new publication:

- 31 *Mittheilungen aus dem Gebiete der Statistik*. (Statistical communications.) 1–20, 1852–74.

Usually four parts were published annually, a few containing general tables (Übersichtstafeln) of the monarchy, the others referring to more specific subjects, above all to the movement of population, education, traffic, industry, and later also to public finance and elections.

Stimulated by the growing need of the diet for quick information, a small manual with general statistics was started in 1861 by the

director of the central bureau:

- 32 *Statistisches Handbüchlein* (Statistical manual), compiled by C. von Czoernig and ed. by the K.K. Direction der administrativen Statistik. 1–10, 1861–1871.

This is a very useful source which presents in addition to current statistics from all fields several time-series and also gives verbal information. With the establishment of a central statistical commission, the 'K.K. Statistische Central-Commission', in 1863 the main publication became the:

- 33 *Statistisches Jahrbuch der österreichischen Monarchie* (Statistical yearbook of the Austrian monarchy). 1–19, 1863–1881.

Since 1867 it was called 'Statistisches Jahrbuch der österreichisch-ungarischen Monarchie' (Statistical Yearbook of the Austrian-Hungarian Monarchy). It embraces all fields of government statistics and has been enlarged successively.

In 1875 the earlier Statistical Communications were replaced by the:

- 34 *Statistische Monatsschrift* (Monthly journal of statistics). 1–43, 1875–1917; n.s. 1–3, 1919–1921. Index: 1–33, 1875–1907 in vol. 34.

This journal is invaluable for its short summaries, historical overviews and detailed monographs in all fields of government statistics. New changes in the system of publications were introduced after 1880. The Statistical yearbook was abolished then and continued by the 'Austrian Statistical Manual', another yearbook:

- 35 *Österreichisches Statistisches Handbuch für die im Reichsrathe vertretenen Königreiche und Länder*. Nebst einem Anhang für die gemeinsamen Angelegenheiten der österreichisch-ungarischen Monarchie (Austrian statistical manual for the kingdoms and provinces represented in the Reichsrath. Including an appendix concerning the common concerns of the Austrian-Hungarian monarchy). 1–35, 1882–1916/17.

It gives a condensed, purely tabular survey of all branches of official statistics. In the same year a uniform collection of statistical publications was started:

- 36 *Österreichische Statistik* (Austrian statistics). 1–93, 1880–1910; n.s. 1–18, 1910–1918. Index: 1–76, 1882–1905 in vol. 76.

This main series of statistical sources contains the results of the census of population and the statistics of the movement of population, the statistics of traffic, commerce and banking, the sanitary

and educational systems, the elections and public finance, justice and criminality.

The readjustment of political relations with Hungary limited the jurisdiction of the Central Commission in 1867 which succeeded, however, in publishing an official manual of the Austrian-Hungarian monarchy comprising the period 1867–1876:

- 37 *Statistisches Handbuch der österreichisch-ungarischen Monarchie für den Zeitraum 1867–1876* (Statistical manual of the Austrian-Hungarian monarchy for the period 1867–1876). 1, 1878. Not continued.

At its 5th anniversary in 1913 the Central Commission published an historical manual (with a French introduction):

- 38 *Statistische Rückblicke aus Österreich* (Résumé rétrospectif de la statistique de l'Autriche), der 14. Tagung des Internationalen Statistischen Instituts überreicht von der K.K. Statistischen Zentralkommission. Wien, Manz, 1913. XXIX + 99 p.

Containing 169 tables, it is a convenient source for a first and short historical overview; its shortcomings are, however, that only few annotations are made and that the time periods covered differ widely; the most important tables refer to the basic census results and the movement of population since 1818, traffic since the 1830's, private and public communication since 1848, education since 1861, foreign trade since 1867, public finance since 1868, some economic production statistics since the 1850's to 1870 health service since 1873, criminal statistics since 1873 and, finally, labour statistics since the 1890's.

The reorganization of official statistics after the First World War is described briefly in:

- 39 'Die Entwicklung der amtlichen Statistik in Österreich' (The development of official statistics in Austria), in: Institut International des Sciences Administratives, ed. *Monographies sur l'organisation de la statistique administrative dans les différents pays*. Paris, 1933. Vol. 1. After the war the main statistical series of the 'Bundesamt für Statistik', the statistical yearbook, appeared under the title:

- 40 *Statistisches Handbuch für den Bundesstaat Österreich* (Statistical handbook for the Federal Union of Austria). 1–18, 1920–1937.

In 1938, when the yearbook appeared for the last time before the end of World War II, its title was changed to 'Statistisches Jahrbuch für Österreich'. Following the war the title was changed once again,

now to be named:

- 41 *Statistisches Handbuch für die Republik Österreich* (Statistical handbook for the Republic of Austria). n.s. 1–, 1950–.
Besides the statistical yearbook the main series published by the Bundesamt was:
- 42 *Beiträge zur Statistik der Republik Österreich* (Contributions to the statistics of the Republic of Austria). 1–12, 1919–1923.
Of the twelve volumes of this series five are dedicated to election statistics, four deal with the results of the censuses, the remaining two covering population movements and labour statistics.
In 1923 the series was merged with the monthly journal 'Statistische Mitteilungen' (Statistical communications), published between 1921 and 1923, to become:
- 43 *Statistische Nachrichten* (Statistical news). 1–16, 1923–1938, n.s. 1–, 1946–.
Some years later an independent publication similar to the earlier 'Beiträge' was begun:
- 44 *Statistik des Bundesstaates Österreich* (Statistics of the Federal Union of Austria). 1–12, 1934–1937.
The first eleven numbers of this series contain the results of the census of 1934, the twelfth is dedicated to population movements. After the Second World War a related series was started, now named:
- 45 *Beiträge zur österreichischen Statistik* (Contributions to Austrian statistics). 1–, 1946–.
These 'Contributions' of which every single number refers to a special subject embrace practically the entire field of official statistics. The most important topics covered periodically are population movements, statistics of higher education, judicial statistics and agricultural statistics.

2.2 Belgium

There are two major histories of government statistics in Belgium:

- 46 Julin, A. 'The history and development of statistics in Belgium', pp. 125–175 in: Koren, J., ed. *The history of Statistics*. New York, Macmillan, 1918.
- 47 'Belgium', pp. 205–228, chapter in: Société de Statistique de Paris,

ed. *Le 25^e anniversaire de la Société de Paris*, 1860–1885. Paris and Nancy, Berger-Levrault, 1885.

The first article contains (a) an historical survey of statistics since the time of the French domination, (b) an account of the subject matters of the principal publications concerning demographic, economic and social statistics, and of the censuses, and (c) a complete list of all official statistical publications between 1830 and 1914. The second article, being shorter with reference to (a) and (c), has the advantage of giving a much more detailed account of the work and the publications of the different ministries. Both articles should be used together.

Further bibliographic information on official (and private) publications containing statistical data may be found in:

- 48 Heuschling, X. 'Aperçu des principales publications statistiques faites sur la Belgique depuis l'incorporation de ce pays à la France, en 1794, jusqu'à ce jour'. *Bulletin de la Commission Centrale de Statistique* 1, 1843: 579–627.
- 49 Ministère de l'Intérieur. *Catalogue de la bibliothèque de la Commission Centrale de Statistique*. Brussels, Hayez, 1902–1911. 7 vols.
- 50 Weerdt, D. de. *Bibliographie rétrospective des publications officielles de la Belgique, 1794–1914*. Louvain and Paris, Nauwelaerts, 1963. 427 p.
The prosperity and complexity of Belgian society created and facilitated a vigorous interest in statistical research. It was, however, chiefly under the Austrian and French domination that the number of investigations and reports increased. During the time of unification with the Netherlands a first statistical commission was created in 1826, attached to the central office in The Hague. After the revolution of 1830 an independent general statistical bureau was organized in 1831, and a series of official publications started in 1832. The first two volumes have a more specific character but the following four contain general statistics of the kingdom concerning the physical, industrial, political, and moral 'state of the nation':
- 51 *Documents statistiques sur le Royaume de Belgique*, recueillis et publiés par le Ministre de l'intérieur. 3rd official publication, 1836; 4th official publication, 1838; 5th official publication, 1840; 6th official publication, 1841.
In 1841 this form of publication was discontinued; it was decided to decentralize statistics and to assign its branches to different min-

istries. At the same time a central statistical commission was created in the ministry of the interior as a coordinating and advisory institution. Besides the preparation of the censuses, this commission has been charged with publishing a periodical account of the condition of the kingdom:

- 52 *Exposé de la situation du Royaume* (période décennale de 1841–1850), publié par le Ministre de l'Intérieur, 1852, 1 vol.; id. (période décennale 1851–1860). 1865, 3 vols.; id. de 1861 à 1875, publié par les soins de la Commission Centrale de Statistique. 1885, 3 vols.; id. de 1876 à 1900, rédigé sous la direction de la Commission Centrale de Statistique. 1907, vol. 1; 1912, vol. 2; 1914, vol. 3.

Covering around 6,000 pages and combining numerical data with qualitative information and verbal interpretation concerning all conceivable aspects of society in historical perspective, these volumes are unrivalled in any other country. An earlier and smaller publication partially embracing the period 1831–1840, may be understood as their predecessor:

- 53 *Résumé des rapports sur la situation administrative des provinces et des communes de Belgique pour 1840*, présenté au Roi par le Ministre de l'Intérieur. 1841.

In 1843 the central statistical commission started a statistical journal which was published irregularly:

- 54 *Bulletin de la Commission Centrale de Statistique*, vol. 1, 1843; vol. 2, 1845; vol. 3, 1847; vol. 4, 1851; vol. 5, 1853; vol. 6, 1855; vol. 7, 1857; vol. 8, 1860; vol. 9, 1866; vol. 10, 1866; vol. 11, 1869; vol. 12, 1872; vol. 13, 1878; vol. 14, 1881; vol. 15, 1883; vol. 16, 1890; vol. 17, 1897; vol. 18, 1904; vol. 19, 1906; vol. 20, 1909; vol. 21, 1921; vol. 22, 1928.

It contains relatively few monographs on population movements, education and other topics, but gives a lot of information about methodological problems of Belgian statistics and usually has a bibliographic part.

In 1857 an annual publication of general statistics was started, partially following the earlier 'Documents statistiques':

- 55 *Documents statistiques*, publié par le département de l'intérieur avec le concours de la Commission Centrale de Statistique. 1–13, 1857–1869.

With some variation statistical data collected by three ministries were compiled annually: data on population, elections, and com-

munal finances by the ministry of justice; data on communication, transport and state mines by the ministry of public works. After 1869 these documents have been replaced by the

- 56 *Annuaire statistique de la Belgique*. 1–, 1870–. Title varies.

From the very beginning this yearbook has been so extensive and detailed that it compensates, together with the 'Exposé', for the great decentralization of Belgian official statistics.

2.3 Denmark

There are several publications relevant for the history of official statistics in Denmark:

- 57 Gad, M. 'Danemark', pp. 258–268, chapter in: Société de Statistique de Paris, ed. *Le 25^e anniversaire de la Société de Paris, 1860–1885*. Paris and Nancy, Berger-Levrault, 1885.

- 58 Jensen, A. 'The history and development of statistics in Denmark'. pp. 201–214 in: Koren, J., ed. *The history of statistics*. New York, Macmillan, 1918.

- 59 Jensen, A. 'La statistique au Danemark' in: Institut International des Sciences Administratives, ed. *Monographies sur l'organisation de la statistique administrative dans les différents pays*. Paris, vol. 1, 1933. The first article is essentially a history of official statistical works and publications between 1835 and 1885. It presents not only a list of all publications, but also describes their general character and their specific contents, even of the first statistical yearbook. The second article gives a more extensive treatment of the institutional history until the First World War and it contains a list of statistical publications at the turn of the century, some bibliographical details are missing, however. The third article mainly deals with the period between the two World Wars and gives an account of the organization, the works and the publications of the central statistical bureau. In addition there are several more extensive histories in Danish:

- 60 Holck, A. *Dansk statistik historie 1800–1850* (Danish history of statistics 1800–1850), ed. by the State Statistical Bureau. Copenhagen, 1901. 321 p.

- 61 *Samfundet og statistiken. Et historisk rids 1769–1950* (Society and statistics. An historical exposé 1769–1950), ed. by the Statistical Department. Statistiske Meddelelser, s. 4, vol. 139, pt. 1. Copen-

hagen, 1949.

- 62 *Statistisk bureaus historie* (History of the bureau of statistics), ed. by the State Statistical Bureau. Copenhagen, 1899 (French summary).
- 63 *Det statistiske department 1896–1920* (The statistical department 1896–1920), ed. by the Statistical Department. Copenhagen, 1920 (French summary).
- 64 *Det statistiske department 1920–1950* (The statistical department 1920–1950), ed. by the Statistical Department. Statistiske Meddelelser, s. 4, vol. 139, pt. 4. Copenhagen, 1951.

Although two population censuses were carried out in 1769 and 1787, the history of organized official statistics in Denmark began in 1797 when the 'Dans-norske Tabelkontor' (Danish-Norwegian Tabulating Office) was created. Since it could not accomplish its principal tasks, it was abolished in 1819. There was no special body for official statistics until 1834 when the 'Tabelkommission' (Tabulating commission) was established. In addition to the population censuses this comparatively independent commission, consisting of high civil servants, collected statistics on the movement of population, livestock, foreign trade, elections, suicides, and criminality which were published in the first series of the:

- 65 *Statistisk tabelværk* (Statistical tables). 1–21, 1835–52; s. 2, vol. 1–26, 1850–63; s. 3, vol. 1–33, 1860–76; s. 4 A, vol. 1–9, 1879–96, B, vol. 1–8, 1878–93, C, vol. 1–9, 1878–96, D, vol. 1–30, 1878–96, E, vol. 1–4, 1887–94; s. 5 A, vol. 1–, 1899–, B, vol. 1–, 1898–, D, vol. 1–, 1902–.

The first two series of the 'Statistical tables' were also published in German. Since the members of the commission were not primarily occupied with statistics, they could not cope with the growing need for and the expansion of statistics.

Therefore, in 1850 a central statistical bureau was created, called 'Det Statistiske Bureau', which continued and successively enlarged the work of the commission. There have been two great extensions and reorganizations of the bureau accompanied by a change of name: since 1895 it was called 'Statens Statistiske Bureau' (State statistical bureau), and since 1913 'Statistiske Department' (Statistical department). The central statistical bureau continued to publish the 'Statistical tables', adding new fields, above all statistics of public income and expenditure since the late 1850's and social statistics since the end of the century. Beginning with the 4th series the 'Sta-

tistical tables' have been subdivided into: A = population (and industrial) statistics, B = judicial statistics, C = agricultural statistics, D = commercial statistics, E = financial statistics.

Beside the 'Tables' comprising the most important works, the bureau began to publish statistical communications which embrace the results of some minor and more or less regular works as well as the result of occasional investigations:

- 66 *Statistiske Meddelelser* (Statistical communications). 1–6, 1852–61; s. 2, vol. 1–13, 1862–77; s. 3, vol. 1–18, 1879–97; s. 4, vol. 1–, 1897–.

The contents are very varied covering almost all fields of statistics, especially schools, elections, taxation and foreign trade, besides a mass of economic and social statistics; until the First World War statistics referring to Iceland are also included.

In 1869 the central statistical bureau started a yearbook under the title:

- 67 *Sammendrag af statistiske Oplysninger angaaender Kongeriget Danmark* (Summary of the principal statistics of Denmark). 1–11, 1869–93.

This 'Yearbook' appeared annually, however, only from 1869 to 1874, the following five volumes being scattered over the next two decades. Two summaries (1874 and 1878) were also published in French. In 1896 these documents were continued by the:

- 68 *Statistisk Aarbog* (Statistical yearbook). 1, 1896. (Danish and French)
- There is no historical statistical handbook.

2.4 Finland

There are only two histories of official statistics, published in another language than Finnish or Swedish:

- 69 Ignatius, K. E. F. 'Finlande', pp. 251–257, chapter in: Société de Statistique de Paris, ed. *Le 25^e anniversaire de la Société de Statistique de Paris*, 1860–1885. Paris and Nancy, Berger-Levrault, 1885.
- 70 Kovero, M. 'La statistique officielle de la Finlande', in: Institut International des Sciences Administratives, ed. *Monographies sur l'organisation de la statistique administrative dans les différents pays*. Paris, 1933. Vol. 1.

The first article contains a short history and a bibliography of offi-

cial statistics until 1885. The second article presents a more extended history including a detailed account of the different series published under the common title 'Finnish official statistics'; in addition it gives an account of the statistical work between the two World Wars, classified according to branches of statistics as well as according to the publishing statistical office.

The history of official statistics in Finland reaches back to the middle of the 18th century when the Swedish-Finnish population tables were introduced. They were continued after 1809 when Finland was separated from Sweden, and in 1832 the first summaries of the tables were published. Besides, there have been reports of the governors of provinces, also going back to the 18th century. Around the middle of the 19th century some of the departments of government began to publish reports containing statistical materials (above all reports on factories and the health service). Finally, a Central Bureau of Statistics (Statistiska Centralbyran – Suomalainen Tilastollinen Päätoimisto) was established, at first temporarily in 1865, and definitely in 1870; at the same time an advisory Central Commission of Statistics was created. The organization of official statistics remained decentralized, however, and this principle was further strengthened in 1884 when the Central Commission was abolished and statistical offices created in connection with several central departments. For the user of Finnish statistics this decentralization is somewhat counterbalanced by the fact that most statistics have been published in one source since 1865:

- 71 *Suomen virallinen tilasto – Finlands officiella statistik* (Official statistics of Finland).

Under this uniform title different series are published whose chronological order gives an impression of the development of official statistics in Finland; among others the following series were included successively (first year covered): foreign commerce (1865), quinquennial reports on economic conditions (1861, discontinued in 1900), national income (1865), population (1865), agriculture (1869), railways (1871). After 1880 the number of new series greatly increased: prisons (1882), public assistance (1881), primary schools (1883), secondary schools (1884), health service (1884), industry (1884), postal service (1885), justice (1891), insurances (1892), emigration (1893), elections (1907), communal finance (1910). The earliest volumes were usually published in Swedish only, but soon

two editions were usually prepared, one in Swedish and one in Finnish; after the first World War most but not all publications were in one bilingual Swedish-Finnish volume.

In 1906 the Central Bureau of Statistics started a series containing statistical information on different subjects which was discontinued, however, in 1920:

- 72 *Tilastollisia tiedonantoja – Statistiska meddelanden* (Statistical communications). 1–33, 1906–1920.

Besides 'Official statistics in Finland' the main publication is the statistical yearbook which was started in 1879. There were two editions until the 1930's, one in Swedish/French and one in Finnish/French:

- 73 *Statistisk arsbok för Finland – Annuaire statistique de Finlande*. 1–23, 1879–1902; ns. 1–, 1903–.
- 74 *Suomen tilastollinen vuosikirja – Annuaire statistique de Finlande*. 1–23, 1879–1902; ns. 1–, 1903–.

2.5 France

France probably has the best documented history of official statistics of all our countries. There are at least four articles giving a general historical description:

- 75 Levasseur, E. 'France', pp. 145–204, chapter in: Société de Statistique de Paris, ed. *Le 25^e anniversaire de la Société de Statistique de Paris*, 1860–1885. Paris and Nancy, Berger-Levrault, 1885.
- 76 Faure, F. 'The development and progress of statistics in France', pp. 215–329 in: Koren, J., ed. *The History of Statistics*. New York, Macmillan, 1918.
- 77 Huber, M. 'L'organisation de la statistique en France', pp. 9–42 in: Institut International des Sciences Administratives, ed. *Monographies sur l'organisation de la statistique administrative dans les différents pays*. Paris, 1933, vol. 1.
- 78 Eichert, E. 'Von der Statistique Générale de la France zum Institut National de la Statistique et des Etudes Economiques. Hundertfünfzehn Jahre französische Statistik, 1833–1948. *Allgemeine Statistisches Archiv* 33, 1949: 367–396.

Since French official statistics were characterized by an excessive decentralization, the great merit of the first article lies above all in

its most detailed description of the organization, the works, and the publications of all statistical services of the different ministries, thus presenting a complete bibliography up to around 1885. The second article is less useful as a bibliographical source, but it gives a much more extended history going back to the earliest beginnings and ending with the First World War. The third article continues the history for the period between the two World Wars and the fourth describes the great reorganization during and shortly after the Second World War. For a more extensive treatment of the last period cf.:

- 79 Marietti, P. G. *La Statistique Générale en France*. Paris, Presses Universitaires de France, 1949. X + 249 p.

Since the first article only contains a useful bibliography, other publications should be consulted; above all the book by Gille who gives an amazingly full and lively account of the statistical sources in France between the second half of the 17th century and 1870, concentrating on the enquêtes, but also including the regular and administrative statistics, whose contents are described in all details.

- 80 Gille, B. *Les sources statistiques de l'histoire de France*. Des enquêtes du XVII^e siècle à 1870. Geneva, Droz, 1964. 288 p.

In addition:

- 81 France, Statistique Générale de la France. *Historique et travaux de la fin du XVIII^e siècle au début du XX^e*. Paris, Imprimerie Nationale, 1913.

- 82 France, INSEE. *Répertoire des sources statistiques françaises*. Paris, Imprimerie Nationale, 1962 ff.

Finally, a very useful and manageable bibliography has been compiled by

- 83 Tilly, L. A.; Tilly, C. 'A selected bibliography of quantitative sources for French history and French sources for quantitative history since 1789' in: Lorwin, V. R.; Price, J. M., eds. *The Dimensions of the Past. Materials, Problems, and Opportunities for Quantitative Work in History*. New Haven and London, Yale University Press, 1972. Although concentrating on quantitative (secondary) analyses of French history, it also includes the most important (primary) sources of official statistics.

Although a great variety of statistical information has been produced in France since the 17th century, to mention only the famous reports of the intendants, it was only in the last years of the ancien régime

that a regular compilation of statistics was attempted and, immediately following, the French Revolution gave a strong stimulus to the collection, and above all to the publication of statistics. In 1796 the 'Bureau Officiel de la Statistique' was created, only to be abolished again in 1812. In 1801 and 1806 the first two general enumerations of the population were carried out, however, not very successfully. With few exceptions the Restoration interrupted the progress of official statistics whose continued organization had to wait until the revolution of 1830. The special statistical institutions created in France after 1830 are fairly numerous and the organization of official statistics remained decentralized until the Second World War. Its history is rather complicated, therefore, and the number of publications of 'General Statistics' is comparatively small. The 'Bureau de la Statistique Générale', created in 1833, is the first and most important statistical office. Its principal object at all times has been the population of France, but to a limited degree it also played the role of a central office. In 1835 it started the publication of a series which, though far from including all national statistics, dealt with some of the main branches (territory and population, agriculture, industry, foreign trade, public finance, prices, consumption, public assistance, prisons):

- 84 *Statistique de la France*. 1-14, 1835-1852.

(A detailed account of the contents is given in Gille's bibliography, pp. 205-211.) The majority of statistics unified in this series have been dispersed successively in particular publications of different ministries. The original programme was never realized and in 1852 was further restricted, since in the meanwhile other ministries had developed their own statistical services, especially the ministry of justice (regular publications since 1827) and the ministry of public works (statistical office since 1844). In 1855 the 'Bureau de la Statistique Générale' started a second, more limited series whose 21 volumes contain statistics relating to population, public assistance, agriculture, and industry:

- 85 *Statistique de la France*. s. 2, vol. 1-21, 1855-1872.

After 1871 this general series was subdivided into special series and again reduced. On the other hand, however, in 1878 the bureau started the publication of its only document of truly general statistics:

- 86 *Annuaire statistique de la France*. 1-58, 1878-1951; ns. 1-, 1952-.

This statistical yearbook summarizing all official statistics of France usually embraced annual tables as well as retrospective tables referring to France and other countries; between 1914 and 1927 the annual and the retrospective tables were published alternatively every second year; later, the historical retrospects were published more irregularly, the last one in 1966:

- 87 *Annuaire statistique de la France 1966. Résumé rétrospectif.*

Although the publication of the statistical yearbook somewhat increased the importance of the 'Bureau de la Statistique Générale', decentralization still grew owing above all to the creation of two important new statistical offices in the ministries of finance (1876) and agriculture (1881). The first of these offices published a statistical journal of general interest which, though concentrating on public finance, taxes and commerce, also contains other statistics relating to insurances, consumption, prices, communication, transport, as well as social and labour statistics:

- 88 *Bulletin de statistique et de législation comparée.* 1–64, 1877–1940. Index: 1–40, 1877–1896; 41–60, 1897–1906; after 1940 continued as 'Bulletin de législation comparée'.

In 1855 the 'Conseil Supérieur de Statistique' was created to counteract the disadvantages of organizational decentralization; but it had purely advisory functions and no executive powers. It was not before 1910 when the 'Direction de la Statistique Générale' became an autonomous organization that the process of decentralization was slowed down. In 1911 it started a new journal dealing with the whole of French official statistics and containing not only figures but also statistical monographs and statistically relevant laws and orders:

- 89 *Bulletin de la statistique générale de la France.* 1–, 1911–; since 1950 continued as 'Bulletin mensuel de statistique' to which a quarterly supplement 'Etudes statistique' is added containing data as well as analyses.

After the First World War the 'Statistique Générale' tried to attain the position of a central office; it was not before the Second World War, however, that French official statistics were radically reorganized. In 1941 a 'Service National des Statistiques' was created by unifying the 'Direction de la Statistique Générale de la France', the 'Direction de la Démographie' and the 'Institut de Conjoncture'. In 1946 again it was reorganized and enlarged when the 'Institut Na-

tional de la Statistique et des Etudes Economiques' (INSEE) was established.

Among the several private statistical societies founded in France since 1800 the 'Société de Statistique de Paris' is undoubtedly the most important one. Created in 1860 it has published since then one of the most famous statistical journals in Western Europe:

- 90 *Journal de la Société de Statistique de Paris.* 1–, 1860–; Index: 1–51, 1860–1910; 52–76, 1911–1935; 77–101, 1936–1960.

It is a useful source containing statistical monographs on a variety of topics for various countries as well as short pieces of numerical information and longer methodological discussions.

Finally, another important private journal should be mentioned which, though concentrating on statistics relating to economy and public finance of most European and other countries, has also a more general character:

- 91 *Annuaire de l'économie politique et de la statistique.* 1–56, 1844–1899. Paris, Guillaumin.

This journal was founded by M. Guillaumin and M. J. Garnier and later edited by M. Block. The first three volumes appeared under the title 'Annuaire de l'économie politique', but since the fourth volume the journal assumed the character of a statistical manual combining numerical information and verbal interpretation. Since 1848 each volume had four sections referring to France, the city of Paris, foreign countries, and a mixed section; in 1865 a fifth section relating to Algeria and the colonies was added. Some parts were published regularly, especially the annual reviews of economic events in different countries, of public finance, and of the movement of population.

2.6 Germany

The variety of greater and smaller states in the old German realm as well as the strong federal character of the German Empire make it difficult to draw a clear picture of the development of official statistics. Since an inclusive bibliography or history are missing, several publications should be consulted:

- 92 Günther, A. 'Geschichte der deutschen Statistik' (History of German statistics), pp. 1–65 in: Zahn, F., ed. *Die Statistik in Deutschland*

nach ihrem heutigen Stande. München and Berlin, J. Schweitzer, 1911; 2 vols.

- 93 Heuschling, X. *Bibliographie historique de la statistique en Allemagne*, avec une introduction générale. Brussels, Librairie Polytechnique d'Aug. Decq., 1845. 105 p.

The first article gives a general but not very detailed history of statistics in Germany since the middle ages. It should be used in connection with the early, extensively annotated bibliography of Heuschling dating up to the 1840's. The following four publications deal with more specific periods and are restricted to official statistics:

- 94 Fallati, J. 'Stand der administrativen Statistik in Deutschland im Jahre 1848-49' (The state of administrative statistics in Germany in 1848-49). *Zeitschrift für die gesamte Staatswissenschaft* 6, 1849: 725-795.

- 95 Becker, K. 'Die Organisation der deutschen Reichsstatistik' (The organization of German imperial statistics), pp. 271-307 in: Société de Statistique de Paris, ed. *Le 25^e anniversaire de la Société de Statistique de Paris, 1860-1885*. Paris and Nancy, Berger-Levrault, 1885.

- 96 Würzburger, E. 'The history and development of official statistics in the German Empire', pp. 333-362 in: Koren, J., ed. *The History of Statistics*. New York, Macmillan, 1918.

- 97 Reichhardt, W. 'Der statistische Dienst in Deutschland' (The statistical service in Germany), pp. 153-192 in: Institut International des Sciences Administratives, ed. *Monographies sur l'organisation de la statistique administrative dans les différents pays*. Paris, 1938; vol. 2. Article (94) is very useful, because it is the only overall account of official statistics in Germany at the middle of the 19th century when statistical investigations were exclusively in hands of the individual states - with the exception of the limited activities of the Tariff Union. The articles (95-97) chronologically describe the development of statistics in the German Empire between 1871 and the 1930's. They all are mainly concerned with the centralized part of German official statistics, giving an account of the history, organization, activities, and publications of the 'Statistical Office of the German Empire'.

A bibliography of all publications of the 'Statistical Office of the German Empire' between 1872 and 1942 can be found in:

- 98 *Statistisches Jahrbuch für das Deutsche Reich* (Statistical yearbook

for the German Empire). 59, 1941/42. pp. 19-50.

In 1911 two volumes were published in honour of the great statistician Georg von Mayr containing 52 articles by leading experts and referring to all different branches of statistics, official as well as private. They may conveniently be used as starting points for any detailed investigations. In 1940 two succeeding volumes were published under the same title, similarly structured but now containing 155 articles which describe the development in the various fields since the First World War:

- 99 Zahn, F., ed. *Die Statistik in Deutschland nach ihrem heutigen Stande* (The present state of statistics in Germany). München and Berlin, J. Schweitzer, 1911. 2 vols., XXVI + 824 p., X + 1021 p.

- 100 Burgdörfer, F., ed. *Die Statistik in Deutschland nach ihrem heutigen Stande* (The present state of statistics in Germany). Berlin, P. Schmidt, 1940. 2 vols., XXVIII + 639 p., XV + 668 p.

Concerning the single German states, the development of official statistics has been documented very extensively for Prussia, Bavaria, and Saxony, but much less, if at all for the other states. For the first three states only a selected list of publications is presented here.

Prussia: whereas the book by Behre describes the development of Prussian statistics until the beginning of the 19th century, including various results of older statistical investigations, the book by Blenck summarizes the work of the statistical office during the 19th century, referring to all different branches of statistics and including a complete bibliography until 1905.

- 101 Behre, O. *Geschichte der Statistik in Brandenburg-Preussen bis zur Gründung des Königlichen Statistischen Bureaus* (History of statistics in Brandenburg-Prussian until the foundation of the Royal Statistical Bureau). Berlin, C. Heymanns, 1905. XVI + 468 p.

- 102 Blenck, E. *Das Königliche Statistische Bureau im ersten Jahrhundert seines Bestehens 1805 bis 1905* (The Royal Statistical Bureau in the first century of its existence 1805-1905). Berlin, Verlag des Kgl. Statistischen Bureaus, 1905. XII + 271 p.

Bavaria: the first of the following three publications refers to the older Bavarian statistics, the other two describe the development of official statistics in the 19th century. Whereas the latter of the two gives a much more detailed history and has also a statistical part, the former has the advantage of including a systematic and complete bibliography until 1895.

- 103 Kgl. Statistisches Landesamt, ed. *Geschichte der älteren bayerischen Statistik* (History of the older Bavarian statistics). Beiträge zur Statistik des Königreiches Bayern, No. 77. Munich, Lindauer, 1910. XI + 224 p.
- 104 Kgl. Statistisches Bureau, ed. *Geschichte und Einrichtung der amtlichen Statistik im Königreich Bayern* (History and establishment of the official statistics in the Kingdom of Bavaria). Munich, G. Franz, 1895. 335 p.
- 105 Kgl. Statistisches Landesamt, ed. *Geschichte der neueren bayerischen Statistik* (History of the newer Bavarian statistics). Beiträge zur Statistik des Königreiches Bayern, No. 86. Munich, Lindauer, 1914. VIII + 277 p.
Saxony: the first publication gives a history of official statistics between 1831 and 1881 as well as some of the main results of Saxonian statistics in this period; the second continues the history and includes a much more extended statistical part.
- 106 Direction des Statistischen Bureaus, ed. *Das Statistische Bureau für das Königreich Sachsen in den ersten fünfzig Jahren seines Bestehens* (The Statistical Bureau of the Kingdom of Saxony in the first fifty years of its existence). Leipzig, Duncker & Humblot, 1881, 96 p.
- 107 'Das Königl. Sächs. Statistische Bureau von 1875–1890' (The Royal Saxonian Statistical Bureau from 1875–1890). *Zeitschrift des K. Sächsischen Statistischen Bureau*, 36, 1890: 1–140.
There are only a few useful works concerning the development of statistics in the smaller German states; among the following publications (108) and (112) contain bibliographies of official statistical publications for Braunschweig (1854–1904) and for Hamburg (1866–1966).
- 108 Zimmermann, F. W. R. 'Die ersten fünfzig Jahre des Statistischen Bureaus des Herzogl. Braunsch.-Lüneb. Staatsministeriums 1854 bis 1904' (The first fifty years of the Statistical Bureau of the Ducal State Ministry of Braunschweig-Lüneburg), pp. 1–51 in: *Beiträge zur Statistik des Herzogtums Braunschweig*, No. 18. Braunschweig, 1904.
- 109 *Zur Geschichte der Hessischen Statistik und ihrer amtlichen Organisation* (On the history of Hessian statistics and its administrative organization), ed. by the Großherzogl. Hessische Zentralstelle für die Landesstatistik at its 50th anniversary. Darmstadt, Großherzogl. Staatsverlag, 1911. 60 p.

- 110 Kollmann, P. 'Das statistische Amt für das Grossherzogtum Oldenburg in den ersten fünfzig Jahren seines Bestehens' (The statistical bureau of the Grand-Duchy of Oldenburg in the first fifty years of its existence). *Jahrbücher für Nationalökonomie und Statistik*, s. 3, vol. 28, 1906: 717–755.
- 111 Statistisches Landesamt der Freien und Hansestadt Hamburg, ed. *100 Jahre Statistisches Amt Hamburg, 1866–1966* (100 years statistical bureau of Hamburg, 1866–1966). Hamburg, 1966.
- 112 *Die Veröffentlichungen des Statistischen Landesamtes der Freien und Hansestadt Hamburg* (The publications of the Statistical Bureau of the Free Hanseatic City of Hamburg). Supplement to the December-number 1966 of the series 'Hamburg in Zahlen'. 21 p.
In the old German realm (dissolved in 1806) only the free imperial cities and some of the states knew statistical investigations whose results, however, were usually kept secret. Until the creation of the German Empire the development of official statistics remained in hands of the individual states and even after 1871 the importance of 'Central statistics' only grew slowly. In the different parts of Germany the progress of official statistics has been unequal as indicated by the year of foundation of a statistical office: Prussia (1805), Bavaria (1808), Württemberg (1820), Hannover (1848), Saxony (1851), Mecklenburg-Schwerin (1851), Baden (1852), Braunschweig (1853), Oldenburg (1855), Saxe-Coburg-Gotha (1858), Hessen (1861), Thuringian States (1864), Hamburg (1866), Anhalt (1867), Bremen (1867), Lübeck (1871), Alsace-Lorraine (1872), Saxe-Meiningen (1875). The following bibliographic description is necessarily limited to the more important states which have a longer and richer tradition of official statistics.

2.6.1 Prussia

For a long time following the establishment of a statistical office in 1805 the extent of Prussian statistics remained very limited (essentially to direct enumerations) and the results were not published regularly; the main publications were edited privately by Hoffmann and later Dieterici, directors of the office (see [102], pp. 188/9 for a bibliography of their works). Regular publications started after the revolution of 1848. Dieterici began to publish a statistical journal in 1848 and a series of statistical sources in 1851:

- 113 *Mitteilungen des Statistischen Bureaus in Berlin* (Communications of the Statistical Office in Berlin). 1–12, 1848–1859/60.
- 114 *Tabellen und amtliche Nachrichten über den preussischen Staat für das Jahr . . .* (Tables and official news about the Prussian state for the year . . .). For the year 1849: vol. 1–5, 6 A + B, 1851–55: 1, 1855: 1, 1858: 1, 1860.

The ten volumes differ somewhat in content; taken together they contain statistics referring to the structure and movement of population, livestock, education, churches, health, administration, and factories.

After 1860 when Engel became director of the statistical office, the system of publications was completely reorganized. In 1861 a new statistical journal and a new series of statistical sources was started, in 1863 a statistical 'yearbook'.

- 115 *Preussische Statistik (amtliches Quellenwerk)* (Prussian statistics – official sources). 1–305, 1861–1934.
- 116 *Zeitschrift des Königlich-Preussischen Statistischen Bureaus* (Journal of the Royal Prussian Statistical office). 1–71, 1861–1933. Index: 1–52, 1861–1912.
- 117 *Jahrbuch für die amtliche Statistik des preussischen Staates* (Yearbook for the official statistics of the Prussian state). Vol. 1, 1863; 2 (continuing vol. 1), 1867; 3, 1869; 4 (2 vols), 1876; 5, 1883.

The Prussian statistics are the main series containing the more extensive works of the statistical office which refer above all to the results of the various censuses, the movements of population, health, agriculture and livestock, industry, trade and transport, primary education and universities. Covering all fields of official statistics, the statistical journal was one of the most important ones with an international perspective before the First World War. There have been several supplements to the journal (*Ergänzungshefte zur Zeitschrift des Königlich Preussischen Statistischen Bureaus*) containing statistics of public finance, the army and primary schools. The third kind of publication was not a 'yearbook' in a stricter sense, since it was published irregularly; the contents were somewhat standardized, the most extensive volumes embracing three parts on population, economy, and state. After 1883 the 'Yearbooks' were followed by very voluminous 'Statistical Handbooks' giving a broad quantitative picture of the Prussian state and including a few time-series; only four volumes of this handbook were published, however, and in

1903 a statistical yearbook was started.

- 118 *Statistisches Handbuch für den preussischen Staat* (Statistical handbook for the Prussian state). Vol. 1, 1888; 2, 1893; 3, 1898; 4, 1903.
- 119 *Statistisches Jahrbuch für den preussischen Staat* (Statistical yearbook for the Prussian state). Title varies slightly. 1–30, 1903–1934.

2.6.2 Bavaria

Official statistics have a long and rich tradition in Bavaria. They flourished above all under the ministry of Montgelas (1799–1817) who established a statistical office (in 1801 and again in 1808) which succeeded in 1809/10 for the first time in producing a statistical report covering the whole kingdom. After the dismissal of Montgelas the development of statistics stagnated until the 1830's when a variety of investigations were started. However, it was the revolution of 1848 which brought the decisive turning point. In 1850 the statistical office became an independent agency and began a series, still published today, containing the major statistical sources:

- 120 *Beiträge zur Statistik des Königreiches Bayern*; later: *Beiträge zur Statistik Bayerns* (Contributions to statistics of the Kingdom of Bavaria). 1–, 1850–.

This series of which 139 volumes were published by the Second World War contains above all statistics referring to the structure and movement of population, agriculture and live-stock, criminality, police and prisons, health and suicides, education and public finance. In 1869 when a 'Central Statistical Commission' was created, the new director of the office, Georg von Mayr, started a journal giving the various current statistics of Bavaria:

- 121 *Zeitschrift des Königlich Bayerischen Statistischen Bureaus* (Journal of the Royal Bavarian Statistical Bureau). 1–, 1869–. Index: 1–28. In 1876 a first attempt was made to edit a yearbook. Since annual statistical observations were missing for several important fields, however, it was stopped after the third volume and not started again before 1894.
- 122 *Statistischer Abriss für das Königreich Bayern* (statistical abstract for the Kingdom of Bavaria). 1–3, 1876–78.
- 123 *Statistisches Jahrbuch* (Statistical yearbook). 1–, 1894–.

2.6.3 Saxony

In 1831 a private, but officially supported statistical society was founded which became engaged in a broad spectrum of statistical investigations (among others: population, education, prisons, mortality, health, welfare, prices, etc.) and which published the first German statistical journal:

- 124 *Mittheilungen des Statistischen Vereins für das Königreich Sachsen* (Communications of the Statistical Society for the Kingdom of Saxony). 1–14, 1831–39; 15, 1842; 16, 1844; 17, 1848.

As the activities of this society diminished in the 1840's, an official statistical office was established in 1850, Engel becoming its director. In 1851 he started a series of 'Statistical Communications' (containing above all the census results) which was followed in 1855 by a statistical journal which gained a high reputation:

- 125 *Statistische Mittheilungen aus dem Königreich Sachsen* (Statistical communications of the Kingdom of Saxony). 1–4, 1851–55.

- 126 *Zeitschrift des Sächsischen Statistischen Bureaus* (Journal of the Saxon Statistical Bureau). Title varies slightly. 1–87, 1855–1941/42. Engel also tried to publish a yearbook, but only managed to produce one volume. The regular publication of an annual had to wait until 1871:

- 127 *Kalender und statistisches Jahrbuch für das Königreich Sachsen . . .* (Calendar and statistical yearbook for the Kingdom of Saxony . . .). 1–34, 1871–1904. Title varies. 1873–1904 issued in two parts with separate titlepages: *Kalender . . .* and *Statistisches Jahrbuch*. 1905–published separately.

2.6.4 Other states

Among the other states only Württemberg has a tradition of official statistics predating the revolution of 1848:

- 128 *Württembergische Jahrbücher für Statistik und Landeskunde* (Württembergian yearbook for statistics and geography). 1–, 1818–.

The publications of other states are only mentioned here without titles. Some kind of 'Contributions to the statistics of . . .' or 'Statistical Communications' were published in (year): Hannover (1850; merged into Prussia in 1866), Oldenburg (1857), Baden (1858), Frankfurt-on-the-Main (1858; merged into Prussia in 1866), Meck-

lenburg-Schwerin (1858), Bremen (1862), Hesse (1862), Hamburg (1867), Bremen (1871), Brunswick (1872). A more or less regular statistical yearbook has been published in (year): Lübeck (1864), Bremen (1867), Baden (1868), Mecklenburg-Schwerin (1872), Hamburg (1874), Hesse (1903).

Prior to the unification of Germany common statistics for the German states existed only to a limited extent for the purposes of the 'Tariff Union' which was established in 1833. It made uniform enumerations of population necessary as the income from the tariffs and the common imposts was to be distributed among the separate states according to the size of their population. Therefore, from 1834 to 1867 triennial enumerations of population were made. The Tariff Union even took the initiative for the first over-all enumerations of the working population and industry, in 1846 and 1861.

Besides the Tariff Union only private initiatives have had some importance, above all the 'Verein für deutsche Statistik', founded in 1846 by v. Reden who also published its impressive statistical journal; although only two volumes appeared, they give a rather comprehensive picture of Germany at that time, comprising more than 2000 pages:

- 129 *Zeitschrift des Vereins für deutsche Statistik* (Journal of the Society for German statistics). 1–2, 1847–48.

The revolution of 1848 further stimulated existing efforts to establish regular statistics for the whole German realm; these efforts, however, had the same fate as the revolution. Later attempts, at the International Statistical Congresses in 1857 and 1863, to agree on common principles were not very successful either.

The turning point came with the foundation of the German Empire. In 1872 the 'Imperial Statistical Office' was created. From this time onwards the work of the statistical offices has been divided into three parts:

- (a) Central statistics = statistics collected solely and directly by the officials of the Empire (above all: foreign commerce, tariffs, indirect taxes, election to the Reichstag, criminal statistics, health insurance);
- (b) Federal statistics = statistics collected by the separate states, but according to uniform principles and compiled by the imperial office for the whole Empire (above all: statistics of population in the widest sense, censuses of occupation in 1882, 1895 and 1907, industry and agriculture);

(c) Special statistics = statistics collected by the individual states on their own initiative and without reference to the Empire (above all: poor relief, medical service, education, prisons, public finances).

- 130 *Statistik des Deutschen Reiches* (Statistics of the German Empire). 1–63, 1873–1882; ns. 1–594, 1884–1941.

Each number of this series is dedicated to a special topic. The most important topics covered annually are: movements of population, taxation, criminality, health and health insurance, and foreign trade. The most important topics covered periodically are: censuses of population, occupation, and industry, and the elections to the Reichstag.

The publication of a statistical yearbook had to wait until 1880, but it soon became the principal general source of German statistics, containing the most important figures in all branches of official statistics:

- 131 *Statistisches Jahrbuch für das Deutsche Reich* (Statistical yearbook for the German Empire). 1–59, 1880–1942.

For specific publications of a larger size there is a special series conceived to supplement the 'Statistik des Deutschen Reiches':

- 132 *Einzelchriften zur Statistik des Deutschen Reiches* (Special publications on statistics of the German Empire). 1–43, 1927–1942.

The publications of this series focus on public administration and public finance, usually including comparative statistics of the major powers. Regularly compiled statistics not included in one of the major series were usually published in:

- 133 *Vierteljahreshefte zur Statistik des Deutschen Reiches* (Quarterly publications on statistics of the German Empire). 1–51, 1891–1942. Between 1873 and 1891 this series was a part of the 'Statistik des Deutschen Reiches'. It focused on economic statistics, occasionally including, however, statistics of employment, housing, emigration and immigration, among others. Finally a monthly periodical should be mentioned:

- 134 *Wirtschaft und Statistik* (Economy and statistics). 1–24, 1921–1944. Contains current data, but also special analyses on a wide variety of subjects as well as methodological notes; 'Sonderbeilagen' (supplements) and 'Sonderhefte' (special editions) with longer accounts of specific issues added from time to time.

Although the federal statistics constituted the major part of the work of the 'Imperial Statistical Office', the importance of central statis-

tics grew, especially as a result of social legislation; in 1902 a special division for labour statistics was created. The first World War did not essentially change the organization and function of the central office and its different publications were continued. It was left to the Nazis to centralize statistics further by merging the central office with the statistical office of Prussia in 1934; statistical works of a political nature, however, were mostly reserved to agencies of the National Socialist Party.

Concerning private activities, the outstanding society to be mentioned is the 'Deutsche Statistische Gesellschaft' founded in 1911. Its official organ became a journal which had already been published since 1890 by G. von Mayr:

- 135 *Allgemeines Statistisches Archiv* (General statistical archive). 1–, 1890–.

It belongs to the few statistical journals which are still mainly concerned with official statistics. More detailed and varied information may be found in another journal edited by E. Würzburger:

- 136 *Deutsches Statistisches Zentralblatt* (Central journal of German statistics). 1–31, 1909–1939.

After the Second World War the administration of the American occupied zone published a handbook with statistical time-series for a short period:

- 137 *Statistisches Handbuch von Deutschland 1928–1944* (Statistical handbook of Germany 1928–1944), ed. by the Länderrat des amerikanischen Besatzungsgebiets. München, Ehrenwirth, 1949.

Over 200 tables give extensive information referring to all fields of official statistics, leaving only the field of labour statistics somewhat neglected. Most of the tables refer to the above time-period but some reach further back, a few even to the last century.

The three Western occupied zones soon established a common statistical office which in 1950 became the 'Statistisches Bundesamt' (Federal Statistical Office). In 1952 this office started a statistical yearbook summarizing all fields of official statistics in the German Federal Republic:

- 138 *Statistisches Jahrbuch für die Bundesrepublik Deutschland* (Statistical yearbook for the German Federal Republic). 1–, 1952–.

Even earlier, two general series in the tradition of the 'Statistik des Deutschen Reiches' began to appear:

- 139 *Statistische Berichte* (Statistical reports), Arbeitsnummern I–VIII.

1948–1961.

- 140 *Statistik der Bundesrepublik Deutschland* (Statistics of the Federal Republic of Germany). 1–266, 1950–1961.

The first series consists of eight special subseries, each subdivided again according to more specific topics which are covered periodically. The second series contains statistics on a great variety of subjects; among the most important fields covered periodically are population movements, migrations, general elections, public finance, criminality and health services. In 1962 both series were superseded by:

- 141 *Fachserie A–N* (Special series). 1961–.

The letters designate the 13 principal subseries, each subdivided again in so-called 'Reihen' which represent different topics and are periodically covered in a number of 'Hefte'.

Finally, the old 'Wirtschaft und Statistik' has been published new as:

- 142 *Wirtschaft und Statistik* (Economy and statistics). ns. 1–, 1949–.

Like its predecessor it contains special studies on a variety of subjects, including analyses of recent census results and current series of vital, social, and economic statistics.

A collection of longer time-series was published by the 'Statistisches Bundesamt' in 1972, commemorating the centenary of the central statistical office:

- 143 *Bevölkerung und Wirtschaft 1872–1972* (Population and economy 1872–1972). Stuttgart und Mainz, Kohlhammer, 1972. 278 p.

Besides a short account of the development of the various branches of official statistics it gives some 150 tables covering the entire field of official statistics. Not all of the tables refer to the whole time-period, however.

2.7 Ireland (Republic)

For the history of official statistics in Ireland until the First World War cf. the United Kingdom. A description of later developments may be found in:

- 144 Lyon, S. 'Statistics in the Irish Free State', pp. 233–252 in: Institut International des Sciences Administratives, ed. *Monographies sur l'organisation de la statistique administrative dans les différents pays*. Paris, 1938. Vol. 2.

Prior to the turn of the century statistics relating to Ireland were rather dispersed and restricted, with the notable exception of population and agricultural statistics. The first special statistical offices were created in 1900 in the new Department of Agriculture and Technical Education, and in 1919 in the Irish Department of the Ministry of Labour in London. When the Irish Free State was established in 1922 these two offices were merged and in 1926 became the statistics branch of the Department of Industry and Commerce, fulfilling practically all the essential functions of a Central Bureau of Statistics. From this time official statistics have been almost completely centralized in Ireland. The Department of Industry and Commerce is also responsible for the publication of a statistical yearbook:

- 145 *Annual Abstract of the Irish Free State*. 1–, 1931–.

In addition this department edits a journal containing a considerable amount of varied statistical information:

- 146 *Irish Trade Journal and Statistical Bulletin* (later: *Irish Statistical Bulletin*). 1–, 1926–.

2.8 Italy

The history of Italian statistics prior to the unification has been retraced by César Correnti in the first volume of a private statistical yearbook:

- 147 Correnti, C., ed. *Annuario statistico Italiano* (Statistical yearbook of Italy). Turin and Milan; vol. 1, 1858; vol. 2, 1864.

The development of official statistics after the Italian unification can be reconstructed using the two following articles:

- 148 Bodio, L. 'Italie', pp. 347–360 in: Société de Statistique de Paris, ed. *Le 25^e anniversaire de la Société de Statistique de Paris 1860–1885*. Paris and Nancy, Berger-Levrault, 1885.

- 149 Gini, C. 'Ordinamento centrale dei servizi della statistica in Italia' (The central order of statistical services in Italy), pp. 53–85 in: Institut International des Sciences Administratives, ed. *Monographies sur l'organisation de la statistique administrative dans les pays différents*. Paris, 1933; vol. 1.

Besides a short history, the first article describes the organization and statistical activities at that time, including a bibliography of the main official publications. The second article retraces the evolution

since 1861 and gives a description of organization and activities in the 1920's. The first bibliography of Italian statistics, including publications since the 1830's, has been:

- 150 *Sui documenti statistici del Regno d'Italia*. Cenni bibliografici presentati al VI Congresso Internazionale di Statistica da Luigi Bodio (About the statistical documents of the Kingdom of Italy. Bibliographical annotations presented to the 6th International Statistical Congress by Luigi Bodio). Florence, Barbèra, 1867. XXXIX + 152 p.

It is very useful, because the list of private and official statistical publications is preceded by a 150 page introduction giving a detailed description of the statistical activities and publications in the various branches. Later bibliographies have all been published in the series 'Annali di statistica':

- 151 *Saggio di bibliografia statistica Italiana* (Preliminary bibliography of Italian statistics). *Annali di statistica*, s. 4, vol. 4, 1883, XIII + 149 p.; 2nd enlarged ed., 1885; 3rd enlarged ed., 1889 and 1890.
- 152 *Elenco delle pubblicazioni fatte dal 1861 al 1894* (List of publications between 1861 and 1894). *Annali di statistica*, s. 4, vol. 75, 1894. 102 p.
- 153 *Indici degli annali di statistica dal 1871 al 1934* (Indexes of the *Annali di Statistica* from 1871 to 1934). *Annali di Statistica*, s. 6, vol. 30, 1934. XII + 398 p.

Besides various indexes of the *Annali di Statistica*, the last two volumes also contain a bibliography of all publications of the central statistical office and of the main statistical publications of various ministries. Most useful, finally, is a newer volume which gives a detailed account of the evolution of statistical activities concerning the movement of population, the labour force and migration, health and medical care, public assistance, education, elections, justice, criminality, and cultural activities:

- 154 *Le rilevazioni statistiche in Italia dal 1861 al 1956*. *Statistiche demografiche e sociali* (The statistical activities in Italy from 1861 to 1956: Demographic and social statistics). *Annali di statistica*, s. 7, vol. 6, 1957. VII + 511 p.

Apart from a shortlived statistical office in the time of the Italian Republic, the institutionalization of statistics did not start before the 1830's and even then the progress was very unequal in the different parts of Italy. In the Kingdom of Sardinia, where statistics were well

developed in general, a 'Higher Statistical Commission' was established in 1853 which published:

- 155 *Informazioni statistiche raccolta dalla Commissione Superiore per gli Stati Sardi in Terraferma* (Statistical information collected by the Higher Commission for the Sardinian States on the Mainland). 1-4, 1839-1853.

Among other things the volumes contain the results of the population censuses and vital statistics between 1819 and 1838.

In Tuscany vital statistics have been published since 1818 by a special office, and in 1848 a statistical bureau was created which edited the:

- 156 *Ricerche statistiche sul Grandducato di Toscana* (Statistical investigations about the Grand-duchy of Tuscany). 1-5, 1848-1854.

The volumes primarily contain statistics on population, primary education, prisons and the army.

In the Kingdom of Two Sicilies two statistical offices were established, one for Sicily in 1832 and the second in Naples in 1834. The main publication of the first was:

- 157 *Giornale di statistica* (Journal of statistics). 1-21, 1836-1851.

Statistics collected by the second office were published in:

- 158 *Annali civili del Regno delle Due Sicilie* (Civil annals of the Kingdom of Two Sicilies). 1836-1851.

For Parma, Modena, and the Papal States statistics were mainly published by private persons. Statistical information concerning Lombardy prior to 1859 and Venetia prior to 1866 is usually given in the respective Austrian sources. For Lombardy three volumes of a statistical yearbook were edited between 1859 and 1861.

A compilation of the results of earlier population censuses can be found in:

- 159 *Censimento degli antichi Stati Sardi e censimenti di Lombardia, di Parma et di Modena* (Census of the former States of Sardinia, censuses of Lombardy, Parma and Modena). Turin, 1862.

The most important private statistical journal in this period was:

- 160 *Annali universali di statistica, economia pubblica, geografia, storia e viaggi* (Universal Annals of statistics, economics, geography, history, and journeys). Milan, 1-80, 1824-1844; s. 2, vol. 1-36, 1844-1853; s. 3, vol. 1-24, 1854-1859; s. 4, vol. 1-48, 1860-1871 (title of s. 1, vol. 1 differs slightly).

It was later followed by:

- 161 *Archivio di statistica* (Archive of statistics). Rome, 1–7, 1876–1883. Following the union of the Kingdom of Sardinia with the central and meridional provinces of Italy, a central statistical office was established in 1861, and in 1868 a central statistical commission. From this time Italy has had one of the most centralized organizations of statistics in whole Europe. Official statistics have usually been published in a great variety of different series devoted to special subjects. The two most general and important series are:
- 162 *Annali di statistica* (Annals of statistics). s. 1, vol. 1–10, 1871–1877; s. 2, vol. 1–25, 1878–1881; s. 3, vol. 1–16, 1882–1885; s. 4, vol. 1–111, 1884–1910; s. 5, vol. 1–11, 1912–1925; s. 6, vol. 1–38, 1929–1936; s. 7, vol. 1–6, 1938–1940; s. 8, vol. 1–, 1947–. Index: s. 6, vol. 30 (1871–1934), 1934.
- The 'Annali' contain official communications on vital, economic and other statistics, interpretative articles and bibliographic information. Usually all fields of statistics are covered, with the exception of series 4 where more than half of the volumes contain industrial statistics only. The index-volume gives a detailed description of the content of all volumes.
- 163 *Annuario statistico Italiano* (Statistical yearbook of Italy). s. 1, vol. 1–13, 1878–1905/7 (1908); s. 2, vol. 1–9, 1911 (1912)–1922/25 (1926); s. 3, vol. 1–7, 1927–1933; s. 4, vol. 1–, 1934–.
- In 1968 an historical statistical manual was published which covers practically all fields of official statistics (population, health, public assistance, education, justice, criminality, agriculture, industry, transport and communication, commerce, prices, labour force, strikes, consumption, public administration and national accounts). It has some disadvantages, however, since annotations are rare and statistics before 1921 are given on a decade basis only:
- 164 Istituto Centrale di Statistica, ed. *Sommario di statistiche storiche dell'Italia 1861–1965* (Summary of historical statistics of Italy 1861–1965). Rome, 1968. XXXI + 147 p.

2.9 The Netherlands

The somewhat complicated development of statistics in the Netherlands may be reconstructed using the following three sources:

- 165 Beaujon, A. 'Pays-Bas', pp. 229–240, chapter in: Société de Statis-

- tique de Paris, ed. *Le 25^e anniversaire de la Société de Statistique de Paris, 1860–1885*. Paris and Nancy, Berger-Levrault, 1885.
- 166 Verriijn Stuart, C. A. 'The history and development of statistics in the Netherlands', pp. 429–444 in: Koren, J., ed. *The History of Statistics*. New York, Macmillan, 1918.
- 167 Methorst, H. W. 'L'organisation de la statistique aux Pays-Bas', pp. 213–232 in: Institut International des Sciences Administratives, ed. *Monographies sur l'organisation de la statistique administrative dans les différents pays*. Paris, 1938. Vol. 2.
- The first article contains only a short history of official statistics but a very detailed account of the organization, the work and the publications of the different ministries. Furthermore it gives a list of all statistical publications between 1850 and 1884 and of some periodical publications started even before 1850. A more extensive description of these developments can be found in the last two articles, the third one also gives information on the statistics collected and published by the central statistical bureau after the First World War.
- Until the end of the 18th century there was an almost absolute lack of regular statistical observations in the Netherlands. The first attempt of the Dutch government at statistics as such was the summary census of 1795, intended as the basis for determining the composition of a general popular representation in the Batavian Republic. In 1826 a statistical bureau was established which was in charge of the first regular census of 1829 and published a threefold collection of tables as a result of its labour. After the Belgian revolution of 1830 this bureau ceased to exist and until 1848 the Netherlands did not possess any statistical service. This period was somewhat bridged by the publication of a small yearbook started by the bureau in 1826 and continued from 1831 to 1849 by the statistician Lobatto:
- 168 *Jaarboekje over . . . uitgegeven op last van Z.M. den Koning* (Yearbook for . . . edited by order of H.M. the King). 1–23, 1831–48.
- With the establishment of a new statistical bureau in 1848 it was transformed into a statistical annual containing more valuable data than its predecessor:
- 169 *Statistisch Jaarboek voor het Koninkrijk der Nederlanden* (Yearbook for the Kingdom of the Netherlands). 1–15, 1851–68.
- Although the statistical bureau in the ministry of the interior had no

general competence, it worked as a kind of central bureau of statistics, since it edited the statistical yearbook containing all essential official statistics. When the yearbook was discontinued, however, the bureau was restricted to the publication of the population statistics and the statistics of the ministry of the interior under the general title:

- 170 *Statistische Bescheiden van het Koninkrijk der Nederlanden* (Statistical documents of the Kingdom of the Netherlands). 1–10, 1865–74.

These volumes contain statistics relating to population movements, the recruitment of the militia, mortality and the finances of the provinces and communes. Later the title was changed to:

- 171 *Bijdragen tot de algemeene statistiek van Nederland* (Documents of general statistics in the Netherlands). 1–3, 1876–78.

With the decreasing importance of the statistical bureau a private statistical society was gaining influence in 'official' statistics. Already in 1849 when Lobatto's yearbook ceased to appear, a small circle of statisticians was founded, formally organized in 1856 as the 'Vereeniging voor Statistiek in Nederland' (Union for Statistics in the Netherlands). The Union first issued an annual booklet purporting to be a periodical collection of statistical treatises:

- 172 *Staatkundig en staatshuishoudkundig Jaarboekje*, uitgegeven door de Vereeniging voor de Statistiek in Nederland (Political and economic yearbook edited by the Union for Statistics in the Netherlands). 1–36, 1849–84; Index: 1849–84.

The booklet covers, on a more or less regular basis, practically all fields of statistics and sometimes also contains time-series.

Later the Union undertook the publication of broadly devised general statistics of the Netherlands. Two volumes were published dealing with the political character of the country, the population, the intellectual and religious life, and criminality:

- 173 *Algemeene statistiek van Nederland* (General statistics of the Netherlands). Leiden, Sijthoff, 1870–1873. 2 vols.

These publications somewhat bridged the years from 1867 to 1882 when no general statistics in the form of a statistical yearbook were edited.

After the statistical bureau in the ministry of the interior, which already had lost most of its importance, was suppressed in 1878, a subsidy was approved to the Union by the parliament in 1879.

Strengthened by these means, the Union undertook the edition of a new statistical yearbook in the spirit of the 'Statistical Abstract':

- 174 *Jaarcijfers* (Yearly figures). 1–, 1881–.

With the assistance of the municipality of Amsterdam, the Union for Statistics established (1884) its own Statistical Institute which became responsible for the publication of the statistical yearbook. The institute was dissolved again in 1892 when a Central Commission for Statistics was created which took over the compilation of the 'Jaarcijfers' and also soon began to enlarge the scope of statistical observation, especially in social matters. The centralization of statistical undertakings was greatly promoted by the establishment of a Central Bureau of Statistics in 1899, the Central Commission becoming exclusively an advisory board. With few exceptions (e.g., agriculture, commerce, and shipping) centralization was completed in 1906. The different statistics collected by the Bureau were published in one common series made up of a number of annual publications:

- 175 *Bijdragen tot de statistiek van Nederland* (Contributions to the statistics of the Netherlands). 1–, 1900–; (since 1920: *Statistiek van Nederland*).

The repeated interruption of the publication of a statistical yearbook was somewhat compensated for by the early publication of a comprehensive historical handbook under the auspices of the private statistical society mentioned above. One year after the first edition in Dutch a French version followed:

- 176 *Résumé statistique pour le Royaume des Pays-Bas 1850–1881*. Publication de la Société de Statistique des Pays-Bas. s' Gravenhage, 1883.

It contains a large number of time-series giving very detailed information on various topics (especially population, public finance, and education) commentated upon in a fifty page introduction.

In 1960 the Central Statistical Bureau published a new historical handbook, followed ten years later by an extended edition:

- 177 *Zeventig jaren statistiek in tijdreeksen, 1899–1969* (Seventy years in time-series). s' Gravenhage, Centraal Bureau voor de statistiek, 1970.

Published as a computer print-out it covers 24 topics, but gives very few comments. The most important tables refer to population movements, the development of the labour force, education, economic

statistics, public finance, foreign trade, criminal statistics, social and labour statistics. Electoral statistics are also included, but only to a limited extent. The time-period usually covered is 1900 to 1969.

2.10 Norway

The history of Norwegian official statistics may be reconstructed using:

- 178 Kiaer, A. N. 'The history and development of statistics in Norway', pp. 447–465 in: Koren, J., ed. *The History of Statistics*. New York, Macmillan, 1918.

- 179 *Statistik Sentralbyra gjennom 75 ar. Tre 25-armeldinger* (The Central Bureau of Statistics through 75 years. Three 25 year accounts). Norges Offisielle Statistik. s. 11, no. 65. Oslo, 1951.

The first article contains a history of the organization, the works and publications of official statistics until the First World War, but has no bibliography.

A complete list of all official publications between 1828 and 1950 can be found in:

- 180 *Fortegnelse over Norges Offisielle Statistik 1828–1950* (Catalogue of the official statistics of Norway 1828–1950). Norges Offisielle Statistikk. s. 11, no. 63. Oslo 1951. 97 p.

In 1963 and 1969 the Central Bureau of Statistics published a guide to Norwegian official statistics, systematically arranged by subject and accompanied by information on the agency responsible, the scope and frequency of statistics, and the principal publications:

- 181 *Veiviser i Norsk Statistik* (Guide to Norwegian statistics). Oslo 1963, 1969. 61 p.

Organized official statistics start in Norway with the creation of the 'Dansk-norske Tabelkontor' (Danish-Norwegian Tabulating Office) in 1797 in Copenhagen. Regular official statistical statements, however, date back much further: vital statistics were begun in 1735, the first census of population was carried out in 1769 and tabular reports on imports and exports were also prepared in the 18th century. After the separation from Denmark in 1814 no separate statistical office existed until 1837 when a tabulating office was organized in the department of finance, being transferred in 1846 to the department of the interior. In the year 1838 the regular publication of

official statistics began under the title:

- 182 *Statistiske tabeller for Kongeriget Norge* (Statistical tables for the Kingdom of Norway). 1838–1860.

In all, twenty different collections of tables were prepared and published by the statistical office covering the results of the censuses of population, and statistics of the movement of population, agriculture, livestock, commerce and shipping.

Preceding the organization of the bureau, the governors of the provinces had been obliged in 1825 to send reports on the economic conditions of their districts. Beginning with 1828 these reports were published every five years until 1858:

- 183 *Beretninger om Rigets økonomiske tilstand* (Reports on the economic condition of the Kingdom of Norway). 1828–1858.

In 1861 the form of publication of official statistics was reorganized and the statistical reports prepared by the different departments of government were henceforth published in a common and uniform collection entitled:

- 184 *Norges offisielle statistikk* (Official statistics of Norway); s. 1, 1861–80; ns, 1883–84; s. 3 no. 1–345, 1885–1900; s. 4 no. 1–130, 1901–1905; s. 5 no. 1–220, 1906–1913; s. 6 no. 1–194, 1914–1920; s. 7 no. 1–200, 1920–1926; s. 8 no. 1–200, 1926–1933; s. 9 no. 1–200, 1933–1940; s. 10 no. 1–200, 1941–1949; s. 11 no. 1–353, 1949–1959; s. 12 no. 1–, 1960–.

The first two series are subdivided by letters and numbers indicating the editing departments and the subjects dealt with; the following series are numbered consecutively.

As the continuous growth of material necessitated a reorganization of official statistics, the existing office in the department of the interior was transformed into an independent institution called 'Statistisk Sentralbyra' (Central bureau of statistics). It was from the outset responsible for a considerable proportion of the official statistics, above all for the population and economic statistics. In the following years there was a steady process of centralization interrupted only by a period between the turn of the century and the First World War.

In 1879 the 'Central Bureau of Statistics' began to publish a yearbook. Its first volume appeared in French; in the following four years two separate editions were prepared in French and Norwegian; from 1885 the yearbook has been edited as a bilingual volume in

Norwegian and French, and since the Second World War in Norwegian and English:

- 185 *Annuaire statistique de la Norvège*. 1–5, 1879–1884. *Statistik arbog*. 1–, 1880–.

This yearbook had two predecessors, the first being published by the director of the statistical office in 1871, and the second by the office itself in 1875:

- 186 Kiaer, A. N. *Statistisk handbog for Kongerit Norge* (Statistical handbook for the Kingdom of Norway). Christiania, Mallings Forlagsboghandel, 1871. 76 p.

- 187 *Résumé des renseignements statistiques sur la Norvège*, ed. by the Statistical Bureau of the Ministry of Interior. Christiania, 1875.

There are several historical statistical handbooks. The first was edited by the central bureau of statistics in 1914, the second in 1926, the third in 1948, with a supplementary edition in 1958. The last of these handbooks is:

- 188 *Historisk statistik 1968 – Historical statistics 1968*. Norges offisielle statistikk; s. 12 no. 245; XVI + 632 p. Oslo 1969.

The statistical series contained in the handbook date as far back as available figures exist and generally go up to and include 1966.

2.11 Sweden

Descriptions of the history of official statistics in Sweden may be found in:

- 189 Sidenbladh, E. 'Suède', pp. 241–250, chapter in: *Société de Statistique de Paris*, ed. *Le 25^e anniversaire de la Société de Statistique de Paris*. Paris and Nancy, Berger-Levrault, 1885.

- 190 Arosenius, E. 'The history and organization of Swedish official statistics', pp. 537–569, in: Koren, J., ed. *The History of Statistics*. New York, Macmillan, 1918.

The first article contains a short history and a more extensive treatment of the organization and the work of official statistics according to the subdivisions of the main series 'Contributions to the official statistics of Sweden'; it gives a list of all publications included in this series until 1885, but also names periodical publications not included. The second article gives a very detailed history including an account of the older demographic statistics and of the contents

of the main series of official Swedish statistics; no bibliography is appended.

- 191 *Statistiska centralbyran 100 år* (100 years central bureau of statistics). Stockholm, Statistiska Centralbyran, 1959.

An English summary of this Swedish book, issued to celebrate the centenary of the establishment of the central bureau of statistics can be found in:

- 192 Kock, K. 'The central bureau of statistics – 100 years old', pp. 363–372, in: Central Bureau of Statistics, ed. *Statistical Review*; ns. vol. 8, no. 7 July 1959.

The foundation of organized official statistics dates back to 1749 when for the first time tabular records were prepared for the whole country on the structure and movement of population. In 1756 the committee in charge of this work was made a permanent commission, in fact the first institution of this kind in Europe. After a period of centralization around 1800, population statistics remained practically unchanged for half a century. Although new branches mainly concerned with economic statistics grew up, Sweden, a pioneer in the 18th century, was comparatively behind the times at the middle of the 19th century. In 1858, therefore, a 'Statistiska Tabellkommissionen' (Statistical Tabulating Commission) was founded, consisting of a 'Statistiska Beredningen' (Statistical Council) as an advising and coordinating agency and a 'Statistiska Centralbyran' (Central Bureau of Statistics) as the executive agency. The organization of official statistics remained decentralized, however, since a number of other departments continued to edit statistical reports. Since 1858 these reports were published uniformly under the common title:

- 193 *Bidrag till Sveriges officiella statistik* (Contributions to the official statistics of Sweden). 1858–1910.

At the end of the 19th century this series had grown from 7 to 23 subseries concerning among others: population and vital statistics (beginning with 1851), judicial statistics (1857), manufactures and trade (1858), commerce and shipping (1858), prisons (1858), the quinquennial reports of the governors (which had been started shortly after 1800 and which were summarized by the bureau from 1860), telegraphy (1861), hygiene and hospitals (1861), state railways (1862), postal service (1864), agriculture and livestock (1865), public education (1868), elections (1871), public works (1872), local

government, poor relief and finance (1874), salaries and pensions (1881). There was, however, an increasing number of periodical statistical reports not incorporated in the series, e.g., reports on taxation and public finance. Besides, the Central Bureau of Statistics published a statistical journal containing general summaries of the large official statistical investigations, statistical monographs on special subjects and shorter statistical communications:

- 194 *Statistisk tidskrift* (Statistical journal). 1–165, 1860–1919; Index: 1860–1913.

From 1871 to 1913 the first number of each volume, usually containing three numbers, was devoted to a summary of all the official statistics corresponding to the statistical yearbooks of other countries:

- 195 *Sveriges officiella statistik i sammandrag* (Summary of Swedish official statistics). 1–44, 1870–1913 (first volume published separately).

The Central Bureau of Statistics was in charge of any statistics not dealt with by any other governmental agency and it slowly took over some of the new statistics (e.g., statistics of elections, public assistance, municipal finance), but the basic decentralization of official statistics remained unchanged, even in the years immediately preceding the First World War when the whole system of publications was modified. In 1911 the older 'Contributions to the official statistics of Sweden' were continued as:

- 196 *Sveriges officiella statistik* (Official statistics of Sweden). 1911–, (consists of subseries).

The summaries of official statistics published in the statistical journal since 1871 were discontinued in 1913 and a separate yearbook was started:

- 197 *Statistik arsbok för Sverige – Annuaire statistique de la Suède*. 1–, 1914–.

At the same time a new series was started containing most of the special surveys and shorter and more professional reports:

- 198 *Statistiska meddelanden* (Statistical communications); s. A 1–6, 1913–1952.

With the publication of this series and the yearbook the 'Statistical Journal' lost most of its importance and was discontinued in 1919. After these changes, the years up to 1945 saw an expansion of the Central Bureau of Statistics. Existing statistics were improved and new ones set up, above all statistics of higher education and of the

distribution of income and property. In 1951 the 'Statistical communications' were discontinued and the bureau resumed the publication of a statistical journal, where preliminary figures, the results of special surveys, articles on different statistical subjects, etc. may now be found:

- 199 *Statistisk tidskrift – Statistical review*. 1–, 1952–; Index: 1952–1962. Since the turn of the century several historical statistical handbooks have been published. The first edition by Sundbärg had three issues: a French one in 1900, a Swedish one in 1901, and an English one in 1904. The second edition thoroughly revised by Guinchard had also three issues: a German, an English one in 1914, and a Swedish one in 1915:
- 200 *La Suède: Son peuple et son industrie. Exposé historique et statistique*. ed. by G. Sundbärg. Stockholm, Government Printing Office, 1900. IX + 510 p.
- 201 *Sweden: Historical and statistical handbook*. 2nd edition, ed. by J. Guinchard. Stockholm, Government Printing Office, 1914. XVI + 785 p.

These handbooks give an overall picture of the Swedish state, economy, society, and culture, mainly in verbal form but supplemented by statistical time-series referring to the structure and movement of population, criminality and prisons, elections and public finance, public assistance and hospitals, education and communications, economic production and consumption, trade cycles and commerce, and finally, labour and social statistics.

In 1955 the central statistical office began to publish a series of three historical statistical handbooks, each one of them being confined to selected topics:

- 202 *Historisk statistik för Sverige. Del 1. befolkning* (Historical statistics of Sweden. Part 1. population). Stockholm, Statistiska Centralbyrån, 1969. 2nd rev. and extended edition. 144 p.

Besides a brief historical survey of the organization of Swedish population statistics and an annotated source bibliography this volume contains time-series on the size and geographic distribution of the population, on age, sex and marital status, on marriage, fertility and mortality, on the economically active population and on emigration and immigration. While a general table on population and vital statistics reaches back to 1720 most of the tables cover the time-period 1750 to 1967.

The second handbook is dedicated to climate and agricultural statistics; only the few tables on the distribution of land (holdings by size, leased farms) covering the time-period from 1885 to 1950 are of major interest to the social scientist:

- 203 *Historisk statistik för Sverige, II: Väderlek, lantmäteri, jordbruk, skogsbruk, fiske* (Historical statistics of Sweden, II: Climate, land surveying, agriculture, forestry, fisheries). Stockholm, Statistiska Centralbyran, 1959. 95 p.

The third volume of the series is the most comprehensive one:

- 204 *Historisk statistik för Sverige. Statistiske översiktstabeller* (Historical statistics of Sweden. Statistical survey). Stockholm, Statistiska Centralbyran, 1960. 280 p.

This volume gives a total of 280 tables on 19 topics, including public finance, elections, education, personal and national income, foreign trade, social welfare, labour statistics and criminal statistics. Most of the tables are confined to the period 1900 to 1950. In contrast to the first two volumes annotations are very scant and seriously missing.

2.12 Switzerland

There are two general histories of the development of statistics in Switzerland:

- 205 Kummer, J. J. 'Suisse – histoire de la statistique de la Suisse', pp. 361–398, in: Société de Statistique de Paris, ed. *Le 25^e anniversaire de la Société de Statistique de Paris, 1860–1886*. Paris and Nancy, Berger-Levrault, 1885.
- 206 Reichesberg, N. *Die amtliche Statistik in der Schweiz*. Geschichte und Organisation. (Official statistics in Switzerland. History and organization.) Bern, Scheitlin, Spring & Cie, 1910. 48 p.

The first article gives a very detailed history of the organization, the work and the publications of official statistics and of the most important contributions of private statisticians until 1885. The second article, although less detailed, continues the history until 1910 and includes some information on official statistics not collected by the statistical bureau as well as on the statistical offices of various cantons. Additional information on the historical development may be found in:

- 207 Baechtold, H. 'Die Schweizerische statistische Gesellschaft 1864–1914', (The Swiss statistical society 1864–1914). *Zeitschrift für Schweizerische Statistik* 50, 1914: 247–280.

The publications of the federal statistical office are conveniently compiled in:

- 208 Eidgenössisches Statistisches Amt. Bureau Fédérale de Statistique: *Veröffentlichungen. Publications, 1860–1950*. Berne, 1950. 16 p.
- 209 *Veröffentlichungen. Publications, 1880–1964*. Berne, 1964.

In comparison to other Western European countries official statistics in Switzerland lagged far behind and only developed slowly, in correspondence with the slow process of political centralization. Until 1848, when the federation of states was transformed into a federal state, official statistics were almost non-existent, the main work being done by private persons. In 1849 the department of the interior became responsible for official statistics with the main objective of carrying out the population census of 1850 as a basis for the apportionment of representatives, taxes and recruits among the cantons. Statistics collected in the following years were published in the series:

- 210 *Beiträge zur Statistik der schweizerischen Eidgenossenschaft* (Contributions to the statistics of the Swiss Confederation). 1–5, 1851–1858.

The five volumes include the results of the census and give statistics of population movements, agriculture and commerce.

In 1860 a federal statistical office was created. The development of official statistics was, however, still impeded by the necessity to co-operate with the cantons which were not obliged to collect certain statistics until 1870. Although the constitution of 1874 greatly extended the functions of the federal government, the federal statistical office was not reorganized before 1888 and its activities remained comparatively restricted until the First World War. Its works were published in the series:

- 211 *Schweizerische Statistik* (Swiss statistics). 1–217, 1860–1919.

More than ninety percent of this series are restricted to the census results, the movement of population, recruitment and commercial statistics; only a few parts deal with statistics of agriculture, poverty, prisons, railways, factories, and insurance. In 1919 the Swiss statistics were discontinued and followed by another series:

- 212 *Schweizerische statistische Mitteilungen* (Swiss statistical communi-

- 222 *The Sources and Nature of the Statistics of the United Kingdom*, ed. for the Council of the Royal Statistical Society by M. G. Kendall. London, Oliver and Boyd; vol. 1, 1952, V + 432 p.; vol. 2, 1957, V + 340 p.

The two volumes contain 39 articles written by leading experts concerning different branches of statistics. Although heavily concentrated on economic statistics, the more general articles cover practically the whole field of official statistics. Each article surveys all the statistical information in the special field, including short remarks on historical development. Furthermore they call attention to pitfalls of interpretation and give additional references. Finally, a general bibliography of British official publications should be mentioned which contains a short but useful chapter on statistical publications:

- 223 Pemberton, J. E. *British Official Publications*. 2nd rev. ed. Oxford, etc.: Pergamon Press, 1973. IX + 304 p.

Prior to the Second World War during which a central statistical office was created, British statistics were characterized by 'departmentalism', i.e., by a complete lack of centralization of any kind. Since each government department was responsible for administering and publishing its own statistics, the history of British official statistics naturally is intricate. Until the beginning of the 19th century the only statistics regularly compiled were those relating to public finance (compiled by the Treasury) and to imports and exports (compiled by the Board of Trade). In 1801 the first decennial census of population was carried out and in 1837 a uniform system of civil registration was established in England and Wales, extended to Scotland in 1853 and to Ireland in 1863. Correspondingly, in all three kingdoms Registrar General's departments were created for the administering of the census and registration. The first special statistical office, however, was established as a branch of the Board of Trade in 1832. From its original functions in connection with the collection of information about trade and commerce, the Board of Trade advanced in the course of the 19th century to an important position in regard to transport, labour, and the supervision of a considerable number of statutes. After the First World War it lost much of its original power. The central position of the Board of Trade was derived above all from the publication of a statistical yearbook containing the more important statistics of all government

departments:

- 224 *Statistical Abstract for the United Kingdom*. 1-83, 1840/1853-1924/1938.

Each volume contains the statistics for approximately the fifteen preceding years. The 2nd volume (1840-1854) was reprinted in 1870, with additions to correspond with the information contained in the 17th volume (1855-1869). Since 1946 this compilation is produced by the Central Statistical Office under the title:

- 225 *Annual Abstract of Statistics*. 87-, 1946-.

Preceding the publication of the 'Statistical abstract' the Board of Trade had edited a more limited series:

- 226 *Tables of the Revenue, Population, Commerce, & C. of the United Kingdom and its Dependencies*. 1-22, 1822-1852.

The tables had supplements containing statistics relating to the colonies and foreign countries which were later continued by the

- 227 *Statistical Tables Relating to Foreign Countries*. 1-12, 1855-1878, and later again by the

- 228 *Statistical Abstract for the Principal and Other Foreign Countries*. 1-39, 1872-1912.

In addition the Board of Trade also published statistical abstracts for the British Empire and for several British overseas dominions and protectorates.

Besides the Registrar General's departments and the Board of Trade, the most important departments concerning statistics have been: the Home Office, established in 1782 (criminal and civil judicial statistics since 1856); the Inland Revenue Department, established in 1849 (summary of income tax since 1857); the Local Government Board, established in 1871 to continue the work of the old Poor Law Board of 1834, and replaced by the Ministry of Health in 1919 (statistics on pauperism since 1848; on local taxation, public health and housing since 1871); the Board of Agriculture (1889), and the three Boards of Education (1899).

In no other country have private statistical societies exerted so much influence as in Great Britain. The most famous among them was founded in 1834: the 'Statistical Society of London', later 'Royal Statistical Society'. Since 1838 it published probably the most important European statistical journal:

- 229 *Journal of the Statistical Society (Journal of the Royal Statistical Society)*, 1-, 1838-. Indexes: 1-15 (1838-52), 16-25 (1853-62),

26–35 (1863–72), 36–50 (1873–87), 51–71 (1888–1908), 72–87 (1909–24), 88–102 (1925–39), 103–117 (1940–53).

A history of the Statistical Society of London and a description of its activities is given by

- 230 Mouat, F. J. 'History of the Statistical Society', pp. 14–59 in: *Jubilee Volume of the Statistical Society*. London, Stanford, 1885, and later in:

- 231 *Annals of the Royal Statistical Society 1834–1934*. London, The Royal Statistical Society, 1934.

There is a useful historical handbook which is restricted, however, mainly to economic statistics:

- 232 *Abstract of British Historical Statistics*, ed. by B. R. Mitchell with the collaboration of P. Deane. Cambridge, Cambridge University Press, 1962. 2nd. ed., 1971. XI + 513 p.

Most of the time-series included cover the whole of the United Kingdom and start in the 19th century; several even go back to the 18th century. Although the results of the census of population go up to 1951, the series stop in 1939 or even earlier. In connection with the second edition of 1971, however, a separate volume has been published continuing most series up to 1965 and including new series referring to crime, elections, and education:

- 233 *Second Abstract of British Historical Statistics*, ed. by B. R. Mitchell and H. G. Jones. Cambridge, Cambridge University Press, 1971. IX + 227 p.

These two private editions should be used together with an officially published and more specialized historical handbook of labour statistics which contains more than 200 time-series concerning (among others) the development of wages, prices and hours of work, employment and unemployment, industrial disputes, and membership in trade unions:

- 234 *British Labour Statistics. Historical Abstract 1886–1968*, ed. by the Department of Employment and Productivity. London, Her Majesty's Stationery Office, 1971. 435 p.

3. INTERNATIONAL STATISTICS

3.1 International Statistical Congresses

For historical information on the international statistical congress cf. part 1.1 of the bibliography (esp. Westergaard, chap. 14) and [236]. A general summary of the activities of the Congress is given by

- 235 Neumann-Spallart, F. X. von. 'Résumé of the results of the international statistical congresses . . .', pp. 284–306 in: *Jubilee Volume of the Statistical Society*. London, Stanford, 1885.

A list of various publications referring to specific sessions of the Congress can be found in [11].

At a later session the Congress inaugurated a series of works which were thought to form a complete collection of international statistics. Only a few of them, however, have been finished. A bibliography is given on pp. 270–271 in [12].

3.2 International Institute of Statistics

There are two histories of the institute, the first giving a very detailed account of the work and the publications of the institute until the 1930's, the second containing a more general history including later developments:

- 236 Zahn, F. *50 années de l'Institut International de Statistique*. The Hague, Institut International de Statistique, 1934. VII + 181 p.
237 Nixon, J. W. *A history of the International Statistical Institute 1885–*

1960. The Hague, International Statistical Institute, 1960. VIII + 188 p.

Between 1885 when the institute was founded and the First World War its only publication was a journal which soon became, however, the most important one for the development of international statistics:

- 238 *Bulletin de l'Institut International de Statistique*. 1–, 1886–. Index: 1–30, 1886–1938.

Besides the reports on the sessions of the Institute (24 between 1887 and 1938) it primarily contains material statistical analyses, one quarter dedicated to population statistics, another quarter to economic statistics, and the rest to various topics such as social and labour statistics, criminality, public finance, education and the organization of statistics; it was not before the 1930's that statistical methodology gained more importance.

In 1913 the Institute created a Permanent Office the main task of of which has been the publication of an international statistical yearbook:

- 239 *Annuaire international de statistique*. 1–8, The Hague, 1916–1921.

It is not a yearbook in a strict sense, since each volume relates to a special topic. The first five volumes contain statistics on the structure and movements of population in Europe (vol. 1, 1916 and vol. 2, 1917), the Americas (vol. 3, 1919 and vol. 4, 1920), Africa, Asia and Oceania (vol. 5, 1921); vol. 6 (1920) gives international labour statistics including among others wages and hours of work, unemployment, trade unions and strikes; vol. 7 (1920) is very heterogeneous containing statistics on primary education, communication, housing, agriculture, and price indices; vol. 8, finally, is dedicated to statistics on public finance, production, and rates of exchange.

Since the League of Nations and the International Labour Organization had assumed statistical tasks in the meanwhile, this publication of general statistics was discontinued and the Permanent Office of the Institute started a new and more specialized series on population statistics:

- 240 *Aperçu de la démographie des divers pays du monde*. 1, 1923; 2, 1925; 3, 1927; 4, 1929; 5, 1932; 6, 1939.

Each volume has two parts; the first contains historical time series of the total population, the distribution of population according to sex, age, civil status, literacy, religion, nationality and language as

well as the regional distribution and the urban population at the latest census; the second gives statistics of marriages, divorces, fertility, and mortality including infant mortality, causes of death, and life expectancy.

In the 1930's the Permanent Office also edited two major collections of economic statistics:

- 241 *Recueil international de statistique économiques*. 1, 1919–1930 (1934), VII + 216 p.; 1931–1936 (1938) VII + 253 p. The Hague. English edition under the title 'International Abstract of Economic Statistics' prepared by the International Conference of Economic Service for vol. 1 and by the Permanent Office for vol. 2.

These are compilations of classified indices of economic activity in the form of a monthly record and referring to finance, prices and wages, trade and output, transport, employment for 15 (vol. 1) and 31 (vol. 2) countries (mainly European).

In addition the Permanent Office published two more specialized but useful books, one about the organization of vital statistics, the other about statistical institutions:

- 242 *Renseignement sur l'organisation actuelle des statistique de l'état civil dans divers pays*. The Hague, 1929.
- 243 *Répertoire international des institutions statistiques*. The Hague, 1934, VIII + 145 p.

The first shows what characteristics of civil status, marriages, divorces, births, and deaths are recorded for about 50 countries. The second gives the names and periodical publications of international institutions, national statistical bureaux, provincial and municipal bureaux and research institutes.

Although the Institute lost more and more of its function as a collector of international statistics, it preserved one real speciality: the international statistics of large cities. The first volume was published under the title:

- 244 *Annuaire statistique des grandes villes*. The Hague, 1927.

The second volume had a different title:

- 245 *Statistique internationale des grandes villes*. The Hague, 1931.

The third edition appeared under the same title but embraced four volumes dedicated to special topics: Tourisme 1929–1934 (1938), Electricité, gaz et eau 1934 (1939), Territoire et population 1928–1934 (1939), Logement 1928–1934 (1940). After the Second World War a new series was begun under the same title, divided into

several subseries:

- 246 *Statistique internationale des grandes villes. International Statistics of Large Towns.*
 Serie A: Statistique démographiques des grandes villes; vol. 1, 1954; vol. 2, 1957.
 Serie B: Statistique du logement et de la construction; vol. 1, 1956; vol. 2, 1960.
 Serie C: Données économiques des grandes villes; vol. 1, 1958.
 Serie D: Services publics et transports dans les grandes villes; vol. 1, 1959.
 Serie E: Statistique culturelle et des sports; vol. 1, 1961.
 In 1961 all subseries were united under the same title in a biennial publication.

3.3 League of Nations

The following two books give a very detailed and comprehensive account of the statistical activities and publications of the League of Nations:

- 247 Aufrecht, H. *Guide to the League of Nations Publications.* A bibliographical survey of the work of the League, 1920–1947. New York, Columbia University Press, 1951. XIX + 682 p.
- 248 *Catalogue des publications éditées de 1920 à 1934*, ed. by the League of Nations. Geneva, 1935. 276 p.
- Statistics have mainly been compiled and published by certain sections of the General Secretariat of the League of Nations as well as by some of the Committees of the League of Nations. The most important among the 13 sections has been the Economic and Finance Section (in 1931 split into two parts) including the Economic Intelligence Service which edited the main statistical yearbook and several series of economic statistics:
- 249 *Annuaire statistique international. International statistical yearbook.* 1–4, 1926 (1927) – 1929 (1930).
- It usually has four main parts referring to: (a) territory and population, (b) production, consumption, and livestock, (c) commerce and transport, (d) public finance, currency, and prices. It has attempted to cover as many countries as possible and to render the statistical series comparable. The content remained essentially the same, when

the title was changed in 1930; only some labour statistics were added:

- 250 *Annuaire statistique de la Société des Nations. Statistical Yearbook of the League of Nations.* 1–13, 1930/31 – 1942/44 (1945).
- The other more specialized statistical series edited by the Economic Intelligence Service refer to: (1) production and prices, (2) money and banking, (3) international trade statistics, (4) balances of payments; most important, finally, has been (5) the 'World economic survey', giving statistics on actual trends of economic development. Following the 1928 'International convention relating to economic statistics' the Economic and Finance Section set up a Committee of Statistical Experts in 1930 which published its statements and recommendations under the title:
- 251 *Studies and Reports on Statistical Methods.* 1–9, 1938–1947.
- Among the other sections of the General Secretariat only the Health Organization and the Disarmament Section have some importance in this context. Besides a bulletin and a yearbook relating to the Organization and Development of Public Hygiene, the Health Organization edited a very useful series of 14 statistical manuals reporting on the vital statistics of all Western European countries with the exception of Italy and including Canada, Czechoslovakia and Hungary:
- 252 *Statistique démographiques officielles de . . .* 1–14, 1924–1930.
- As a pioneer effort, the disarmament section published a yearbook with statistics on armaments, including military expenditures.
- 253 *Annuaire militaire. Disarmament Yearbook.* 1–15, 1924–1939/40.

3.4 United Nations

For an introduction to United Nations documents see:

- 254 Brimmer, B. et al. *A Guide to the Use of United Nations Documents.* Including reference to the specialized agencies and special U.N. bodies. Dobbs Ferr, N.Y., Oceana Publications, 1962. XV + 272 p.
- 255 Winton, H. N. M. *Publications of the United Nations System: A Reference Guide.* New York and London, Bowker, 1972. XI + 202 p.
- Whereas the first gives a more extensive description of the docu-

mentation system, the use of the second is more convenient. Besides a brief overview of the organization of the United Nations and its publications, it gives a number of valuable reference works, a comprehensive list of their periodicals and selected other recurrent publications.

Within the United Nations it is primarily the Statistical Commission and the Statistical Office (Department of Economic and Social Affairs), the four regional economic commissions and the twelve specialized intergovernmental agencies which deal with statistics. Here, only some of the publications of the Statistical Office are mentioned. Most important are the following four yearbooks:

- 256 *Statistical Yearbook*. 1—, 1948—.

It summarizes statistics from the more specialized yearbooks referring to population, employment and unemployment, industrial and agricultural output, education, communications, and social services. It also includes time-series.

- 257 *Demographic Yearbook*. 1—, 1948—.

Each volume contains time-series of basic demographic data as well as statistics on special topics (e.g., fertility, mortality, population censuses) which are repeated every five years.

- 258 *Yearbook of International Trade Statistics*. 1—, 1950—.

Each volume gives statistics on exports and imports by country of origin and destination, and indices of terms of trade.

- 259 *Yearbook of National Accounts Statistics*. 1—, 1957—.

Each volume includes among others statistics on GNP, governmental budgets, external transactions. The yearbook was preceded by:

- 260 *Statistics of National Income and Expenditure*. Statistical papers, series II, on. 1–10, 1952–56.

Among the more or less periodical publications one is outstanding:

- 261 United Nations. *Report on the World Social Situation*. 1, 1952; 2, 1957; 3, 1961; 4, 1963; 5, 1965; 6, 1967; 7, 1971.

In the first part of each volume social development is analyzed by regions, in the second the following subjects are treated. World population situation, family planning, health, food and nutrition, housing, education, employment, prices and wages, social security, social welfare services. As an attempt to systematize the assembling of basic statistics for the report on the world social situation, a compendium has been issued as a joint undertaking of the UN, the ILO,

the FAC, the UNESCO and the WHO:

- 262 United Nations. *Compendium of Social Statistics*. 1, 1963; 2, 1967.

3.5 International Labour Organization

The International Labour Organization (I.L.O.) was established in 1919 as an intergovernmental agency whose main object is to improve, collect and publish comparative information relating to labour problems. The I.L.O. consists of the International Labour Conference, an assembly which passes the basic recommendations and conventions, the Governing Body, and, finally, the International Labour Office which functions as the secretariat of the organization. The work of this office has been supported more or less regularly by the 'International Conference of Labour Statisticians' (ten held between 1923 and 1962). This organization and its activities during the first ten years are extensively described in the comprehensive survey:

- 263 International Labour Office, ed. *The First Decade*. London, 1931. A more embracing account of the I.L.O.'s contribution to the development of labour statistics is given in the synoptic article:

- 264 *The Research Work of the I.L.O.* International Labour Review 71, 1955: pp. 122–147.

For a more extensive documentation of the efforts at international standardization and improvement of labour statistics cf.:

- 265 *The International Standardization of Labour Statistics*. Studies and reports. Ser. N. no. 19 (1934) and no. 25 (1943); new ser., no. 53 (1959).

This series of articles gives an overview of the general development of labour statistics as well as detailed discussions of the evolution in the following branches of labour statistics: classification of industries and occupations, employment and unemployment, wages and hours of work, cost of living, industrial accidents, houses, collective agreements, industrial disputes, emigration and immigration. For bibliographic purposes the office publishes a special series:

- 266 *Bibliographic contributions*. 1—, 1951—. See especially no. 25:

- 267 *Subject Guide to Publications of the International Labour Office*, 1919–1964. Geneva, 1967. V + 478 p.

The oldest periodical publications of statistics of the International

Labour Office is its

- 268 *International Labour Review*. 1—, 1921—. Indexes: 1–20, 1921–1929; 21–30, 1930–1934; 31–75, 1935–1957.

Besides a bibliographical part the journal usually contains articles on a great variety of topics including among others analyses of labour statistics, discussions of their methodological problems and reports on political and administrative measures concerning economic and social questions. From 1924 to 1951 the journal also contained a special part devoted to statistics on employment and unemployment, hours of work, wages and cost of living; from 1952 to 1964 these statistics appeared in 'Supplement to the International Labour Review' which since 1965 forms the

- 269 *Bulletin of Labour Statistics*. 1—, 1965—.

In addition to the 'International Labour Review' with its broad range of subjects, from 1920 the office published a series dedicated to more specialized problems. Until the World War II it was divided into 16 subseries of which only one is of interest here:

- 270 *Studies and Reports. Series N, Statistics*, 1–25. 1923–1943.

These volumes deal with problems and methods of compilation in the various branches of labour statistics, the work of the 'International Conference of Labour Statisticians', and general reports on the statistical work of the I.L.O. After World War II the 16 subseries were unified in a new and common series:

- 271 *Studies and Reports*. New series. 1—, 1946—.

In 1930 the International Labour Office started a yearbook which mainly gave qualitative information but also contained a few tables referring to unemployment, wages and cost of living:

- 272 *I.L.O. Yearbook*. 1–10, 1930–1940.

The scope of the tables increased in the text editions, and the edition for 1934–35 appeared in two volumes, one dedicated to statistics alone. Since 1936 the statistical part has been published separately under the title:

- 273 *Yearbook of Labour Statistics*. 1—, 1936—.

The fields covered by the yearbook are: employment and unemployment, hours of work, wages, prices, family living studies, migration and industrial relations; between 1946 and 1961 a section on social security was also included. Each section starts with a discussion of the scope of the data, the method of their compilation and the degree of comparability.

3.6 United Nations Educational, Scientific and Cultural Organization

UNESCO was founded in 1945. Two institutions, however, may be regarded as its predecessors. One is the 'Institut International de Coopération Intellectuelle' in Paris which was founded in 1925 by the French government and worked as an agency of the 'Commission de Coopération Intellectuelle' of the League of Nations. A comprehensive survey of its work, including a bibliography of its publications, is given in:

- 274 *L'Institut International de Coopération Intellectuelle 1925–1946*. Paris, 1946.

The other institution is the 'Bureau International de l'Education' which was privately founded in 1925 in Geneva. In 1929 it was transformed into an inter-governmental organization and soon began to publish a yearbook:

- 275 *Annuaire international de l'éducation et de l'enseignement*. 1—, 1933—.

Since 1948 this yearbook was published in cooperation with UNESCO and appears in English. In 1969 the 'Bureau International de l'Education' was incorporated into UNESCO.

UNESCO compiles and publishes statistics on education, science and culture. The most important publication relating to education consists of a series of five volumes, the first of which is named:

- 276 *Handbook of Education Organization and Statistics*. Paris, 1951.

The following four appeared under the general title:

- 277 *World Survey of Education*. Vol. 2: Primary education, Paris 1958; vol. 3: Secondary education, 1961; vol. 4: Higher education, 1966; vol. 5: Educational policy, legislation and administration, 1971.

The three middle volumes report statistics on school enrolment in practically all countries of the world, many reaching back to about 1930.

Since 1963 UNESCO has issued a general yearbook which includes statistics on education, science and technology, libraries and museums, book production, newspapers and other periodicals, paper consumption, film and cinema, radio broadcasting and television:

- 278 *UNESCO Statistical Yearbook*. 1—, 1963—.

More detailed statistics on communication, including numbers of radio and TV sets, new films produced, and newspapers published and circulated are given in a manual which has been published

irregularly from 1950:

- 279 *World Communications: Press, Radio, Television, Film*. 1—, 1950—.
Finally, more special analyses on a variety of subjects which sometimes include time-series are given in the series:
280 *Statistical Reports and Studies*. 1—, 1957—.

4. PRIVATE STATISTICS

4.1 Early national collections

The value of the following collections lies above all in assembling dispersed statistics from a variety of official and sometimes private sources at an early stage in the development of official statistics:

- 281 Dieterici, C. F. W. *Handbuch der Statistik des preußischen Staates* (Statistical manual of the Prussian state). Berlin, Mittler, 1861. 715 p.
- 282 Forsell, C. af. *Statistik in Schweden*. Nach der zweiten und verbesserten Auflage übersetzt von A. G. F. Freese (Statistics of Sweden. Translated by A. G. F. Freese using the second and improved edition). Lübeck, Rohden, 1835. VIII + 365 p.
- 283 Franciscini, S. *Neue Statistik der Schweiz*. Nach der zweiten und gänzlich umgearbeiteten Ausgabe aus dem Italienischen übersetzt (New statistics of Switzerland. Translated by using the second and completely revised Italian edition). Bern, Haller; vol. 1, 1848, 580 p.; vol. 2, 1849, 298 p.; Nachtrag (supplement), 1851, 372 p.
- 284 Horn, J. E. *Statistisches Gemälde des Königreichs Belgien* (Statistical picture of the Kingdom of Belgium). Dessau, Katz, 1853. XVI + 228 p.
- 285 Ignatius, K. E. F. *Statistisk handbok för Finland* (Statistical manual for Finland). Helsinki, 1872. XI + 411 p.
- 286 Kraft, J. E. *Topographisk-statistisk beskrivelse over Kongeriget Norge* (Topographic statistical description of the Kingdom of Norway). Christiania Grondahl, 1820–1835. 6 vols + tables.
- 287 Schweigaard, A. M. *Norges statistik* (Norwegian statistics). Chris-

tiania, 1840.

- 288 Viebahn, G. von. *Statistik des zollvereinten und nördlichen Deutschlands* (Statistics of the German Tariff Union and of northern Germany). Berlin, Reimer; vol. 1, 1858; vol. 2, 1862. 1050 p.
- 289 Wirth, M. *Allgemeine Beschreibung und Statistik der Schweiz* (General description and statistics of Switzerland). Zürich, Füssli; vol. 1, 1871; vol. 2, 1873; vol. 3, 1875. VII + 782 p.
- 290 Zuccagni-Orlandini, A. *Corografia fisica, storia e statistica dell'Italia e delle sue isole . . .* (Geography, history, and statistics of Italy and its islands . . .). Florence, 1835–1845; 12 vols.

4.2 Older comparative collections

- 291 Wappäus, J. E., ed. *Handbuch der Geographie und Statistik für die gebildeten Stände*. Leipzig, Hinrichs, 1853–1871.
Vol. 1, pt. 1: Handbuch der allgemeinen Geographie und Statistik, 1855; vol. 1, pt. 2: Nordamerika, 1855; vol. 2, pt. 1: Afrika, 1853; vol. 2, pt. 1 + 2: Afrika, Australien, 1866 (second enlarged ed.); vol. 2, pt. 3: Asien, 1864; vol. 3, pt. 1: Ost- und Nordeuropa; vol. 3, pt. 2: West- und Südeuropa, 1862–1871; vol. 4, pt. 1: Österreich, Deutscher Bund im allgemeinen, 1861–1867; vol. 4, pt. 2: Das Königreich Preußen und die deutschen Mittel- und Kleinstaaten, 1864.
On the whole, the volumes containing several thousand pages cover practically all countries of the world at that time. Besides a bibliography and a very detailed topographical description including quantitative information on cities and other communities for each country, the following subjects are frequently treated by 'country specialists': political constitution and administrative division of the country, military structure, distribution and movements of population, agriculture and industry, commerce, transport and communication, education and religion, welfare and criminality. The extensive statistical tables are usually scattered in the text.
- 292 Kolb, G. F. *Handbuch der vergleichenden Statistik der Völkerzustands- und Staatenkunde*. Leipzig, Felix, 7th ed., 1875; XXIV + 886.
Mainly on Europe, but also including some other countries, above all the Americas. The country chapters are usually divided into four parts relating to country and population, public finance, military,

- and 'Sociales' which includes statistics on churches, education, criminality, agriculture and industry, railroads, post and telegraphs.
- 293 Mulhall, M. G. *Dictionary of Statistics*. London, Routledge, 4th ed., 1899. 853 p.
This voluminous manual contains quantitative data only. Although concentrating on economic and demographic statistics, other fields are also covered, including, education, elections, public finance, and communications. Besides detailed current figures for single countries, comparative tables and time-series are presented. It is the major single source of that period, but has the great disadvantage that no authorities are given and only few annotations are made.
 - 294 Webb, A. D. *The New Dictionary of Statistics*. A complement to the fourth edition of Mulhall's 'Dictionary of statistics'. London, Routledge, 1911. XI + 682 p.
Supplement for 1899–1909 to Mulhall but superior, since authorities are given for all statistics; includes an extensive list of publications.
 - 295 Sundbärg, G. *Aperçus statistiques internationaux*. Stockholm, Imprimerie Royale, 1908. Reprinted as volume 4 in the series 'Demographic monography', ed. by M. Perlman. New York, Gordon and Breach. XVI + 396 p.
The major part consists of comparative statistical time-series relating to the structure and movement of population (including special demographic indicators), agricultural and industrial production, commerce and communications. The more 'recent' statistics refer to education, elections, public incomes and expenditures, military forces, trade unions and strikes. This volume has a high reputation, although practically no sources and only few annotations are given.
 - 296 Woytinsky, W. S. *Die Welt in Zahlen*. Berlin, Mosse, 1925–1928. 7 vols. Vol. 1: Die Erde, die Bevölkerung, der Volksreichtum, 1925, XXIV + 236 p.; vol. 2: Die Arbeit, 1926, XXI + 375 p.; vol. 3: Die Landwirtschaft, 1926, XXII + 320 p.; vol. 4: Das Gewerbe, 1926, XXI + 375 p.; vol. 5: Handel und Verkehr, 1927, XXII + 376 p.; vol. 6: Die öffentlichen Finanzen, 1927, XXII + 280 p.; vol. 7: Staatliches und kulturelles Leben, 1928, XII + 395 p.
Like the older German collections, these extremely useful volumes combine extensive qualitative information with the presentation of numerous statistical tables; with the exception of a very few countries, they are restricted to Europe. The main contents of the various volumes are: vol. 1: structure and movement of population, migra-

tion, cities, national income, income distribution; vol. 2: working classes, women and child labour, labour unions, collective agreements, wages, hours of work, strikes, unemployment, social security, insurances; vol. 3: distribution of land, land ownership, agricultural products; vol. 4: industrial branches and enterprises, industrial products; vol. 5: transport, communications, commerce, banking, prices, economic conjunctures; vol. 6: incomes and expenditures, debts, communal finances; vol. 7: elections and parliaments, military forces, housing, health service, education, judiciary.

- 297 Woytinsky, W. S.; Woytinsky, E. S. *World Population and Production*. New York, The Twentieth Century Fund, 1953. LIX + 1255 p.
- 298 Woytinsky, W. S.; Woytinsky, E. S. *World Commerce and Governments*. New York, The Twentieth Century Fund, 1955. LII + 907 p. In comparison with the earlier collection these two volumes cover the whole world and they are more concerned with economic statistics, but less useful with respect to other topics. The first volume contains demographic and economic statistics, the second presents statistics on trade and transportation, and political statistics referring to elections and parliaments, government revenues and expenditures.

4.3 Newer cross-national collections

- 299 Banks, A. S.; Textor, R. B. *A Cross-Polity Survey*. Cambridge, Mass., The M.I.T. Press, 1963.
- 300 Ginsburg, N. *Atlas of Economic Development*. Chicago, University of Chicago Press, 1961. VII + 119 p.
- 301 Russett, B. M.; Alker, H. R., Jr.; Deutsch, K. W.; Lasswell, H. D. *World Handbook of Political and Social Indicators*. New Haven and London, Yale University Press, 1964. X + 373 p.
- 302 Taylor, C. L.; Hudson, M. C. *World Handbook of Political and Social Indicators*. New Haven and London, Yale University Press, 2nd edition, 1972. XIV + 443 p.

4.4 Newer historical collections

The Correlates of War Project:

- 303 Singer, J. D.; Small, M. *The Wages of War 1816-1965*. New York,

Wiley, 1972. XII + 419 p.

The QUAM-Project:

- 304 Zapf, W. *Materialien zur Theorie des sozialen Wandels*. Konstanzer Habilitationsschrift. University of Konstanz, 1967.
- 305 Zapf, W.; Flora, P. 'Some Problems of Time-Series Analysis in Research on Modernization'. *Social science information* 10 (3), 1971: 53-102.
- 306 Flora, P. *Modernisierungsforschung: Zur empirischen Analyse der gesellschaftlichen Entwicklung*. Düsseldorf, Westdeutscher Verlag, 1974. 203 p.
- 307 Flora, P. *Indikatoren der Modernisierung: Ein historisches Datenhandbuch*. Düsseldorf, Westdeutscher Verlag, 1975. 197 p. The Minnesota Political Data Archive, University of Minnesota, Minneapolis, Minn. 55455: A greater part of the data has been analyzed in two articles by
- 308 Flanigan, W.; Fogelman, E. 'Patterns of political development and democratization: A quantitative analysis', and 'Patterns of democratic development: An historical comparative analysis' in: Gillespie, J. V.; Nesvold, B. A., ed. *Macro-Quantitative Analysis*. Beverly Hills, Sage, 1971. The SUNY-Binghamton Cross-National Time-Series Data Archive, Center for Comparative Political Research, State University of New York, Binghamton, New York 13901:
- 309 Banks, A. S. *Cross-Polity Time-Series Data*. Cambridge, Mass., The M.I.T. Press, 1971. XXIII + 300 p. In 1972 two 'Technical reports' were produced, the first containing a general description of the archive, the variables and the series coverage, the second giving coding criteria and sources. The Nordic Countries Project: The content of the archive is described in:
- 310 Kuhnle, S. *Indicators of National Development: The Nordic Countries. Codebook for the National-file per March 1st 1972*. Historical-ecological data-archives: Report No. 5. University of Bergen. Institute of Sociology. The data have been analyzed in:
- 311 Kuhnle, S. *Patterns of Social and Political Mobilization. A Historical Analysis of the Nordic Countries*. London, Sage, 1974.