

# STATISTICAL AND SOCIAL INQUIRY SOCIETY OF IRELAND.

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## THE ORGANISATION OF OFFICIAL STATISTICS IN SAORSTAT EIREANN AND IN SOME OTHER COUNTRIES.

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In the complexity of modern life, governments and peoples require a vast and ever-increasing fund of measurable facts, or as they are called "statistics," for their work and weal. They require to know the size and distribution of the population, the resources of the country—agricultural, mineral and industrial—the wealth or taxable capacity, the volume and value of external and internal trade, the social statistics relating to health, unemployment and education, means of communication (rail, road, post and telephones)—and many other details of the economic, financial and social conditions of the people. That information is provided by the collection of (a) Statistics which arise directly out of the administrative functions of the several Departments of Government, and (b) other Statistics which are collected and compiled deliberately and purposely by a particular section of the Government administration—a Statistics Office, which in some countries is described as and fulfils the functions of a national laboratory for social and economic research. Both of these groups of statistics form "official statistics." The labelling of any set of statistics as "official" gives them an authority, and implies accuracy resulting from careful collection and compilation. Much "official" statistical information is not published because of the considerable cost of printing but is available on request at the compiling office. The public are gradually being educated to use statistics and there are daily demands for special returns and for specific figures. When official statistics are presented in tabular form they are nearly always accompanied by a page or pages of explanatory notes which should always be very carefully read by the users of the figures in order to appreciate their exact significance. It is the use of statistics without these absolutely essential qualifications which has justly been responsible for the phrase "Lies, damned lies and statistics." It is quite possible without deliberately meaning to do so, to use statistics wrongly, and when controversies arise in the public press or elsewhere and sets of statistics are hurled by one side against the other, and quoted as "official statistics," a lack of faith in official statistics is engendered—all due to careless handling of the figures.

As the expenditure of public money is involved, the facts which the Official Statistics Office measures must be of national importance and must be of such a character that private individuals or organisations interested could not reasonably be expected to collect or compile them for themselves. A Statistics Office would not be justified in collecting data just because it is interesting. This is a point of academic importance however; in this, as in all other countries, the scope and volume of statistics of real national importance at present collected fall far short of what is required.

Official statistics can be divided into two groups: (1) those which are deliberately collected as part of a special enquiry and (2) those which arise as by-products in the course of the administrative work of Government Departments. In the first group would fall such enquiries as Census of Population, Census of Production, Agricultural statistics, and it is with these branches of statistics that a Central Statistical Office is mainly concerned, but statistics of no less importance would be included in the second group which comprises the Revenue and other Financial Statistics, Social Statistics, Criminal and Judicial Statistics. In some countries the statistics are collected and published haphazard without any co-ordination, while in others there is a centralised control over all official statistics and publication is made in such a way that comparison and correlation between statistics on different subjects are possible. Those countries (and this country may be regarded as one of them) are fortunate which have centralisation of their official statistics under a single Direction. In other countries where statistics have been collected and published independently over a series of years by the various branches of the Administration, tradition, vested interest, desire for economy and departmental jealousy are perhaps the principal reasons that militate against the centralisation of statistics.

In new countries—by which I mean those countries which within the past half century have achieved or been accorded a measure of political independence—it has been possible to benefit from the experience of older countries concerning organisation of statistics and in almost all cases a Central Bureau of Statistics has been set up.

### SAORSTÁT STATISTICS.

The statistical service of the Saorstát is entrusted to a Branch of the Department of Industry and Commerce which fulfils practically all the essential functions of a Central Bureau of Statistics, inasmuch as it has no administrative functions. Its sole function is the collection, compilation and dissemination of statistics. All the more important economic and social statistics of the country are collected, compiled and published by that office. The principal exception is vital statistics, which are compiled, and have been compiled for many years back, in the office of the Registrar-General of Births, Deaths and Marriages.

Prior to the beginning of this century when the Department of Agriculture was set up, the statistical information relating to Ireland, was, with the notable exceptions of the Census of Population and of Agricultural and Vital Statistics, meagre and dispersed. A Statistics and Intelligence Branch was part of the organisation of the Department of Agriculture and Technical Instruction. That Branch compiled and published the annual reports on Agricultural Statistics, Statistics of Banking, Railways and Shipping, Agricul-

tural Prices, Irish Agricultural Labourers, Exports and Imports at Irish Ports. The work of the Branch continued without much change up to 1923. It also issued a "Monthly Statistical Statement" in March, 1919, which survived up to 1923. This publication, while mostly devoted to statistics of trade in certain commodities, was used as a medium for prompt publication of other statistics such as prices of Agricultural Produce, Live Stock, etc., compiled by the Branch, which otherwise would not appear until publication of the Annual Reports.

In 1919, when an Irish Department of the Ministry of Labour, London, was created, a Statistics and Intelligence Branch formed part of the plan of organisation. That Branch collected statistics relating to (1) the working of Labour Exchanges and the working of the Unemployment Insurance Act, (2) Trade Disputes, (3) Changes in rates of wages and (4) as an agent for the Ministry of Labour, London, retail prices for the compilation of a United Kingdom cost-of-living index number. No statistical reports were published by the Irish Department of the Ministry of Labour, but the Monthly Journal of the Ministry in London contained the summaries of statistics compiled in this office. The office had very little freedom, as almost everything concerning statistics was planned and ordered from the Headquarters of the Ministry in London. When the Saorstát was established in 1923 the Statistics Branch of the Department of Agriculture and Technical Instruction and the Statistics Branch of the Irish Department of the Ministry of Labour were merged into one and the joint personnel formed the nucleus of the present Statistics Branch of the Department of Industry and Commerce, of which the late Mr. John Hooper, an ex-President of this Society, was the distinguished first Director.

Shortly after the Statistics Branch as at present constituted was formed the Minister for Industry and Commerce appointed a special Committee (Professor Bastable (Chairman), Professor Busted and Mr. John Hooper) to advise him on Economic Statistics and on the publication of other information of an economic nature. The Committee reported\* in 1925 and advised *inter alia* that the Government should introduce a Statistics Bill. Accordingly in 1926 a general Statistics Act for the Saorstát was passed by the Oireachtas.

The Statistics Act, 1926, gives powers to the Minister for Industry and Commerce for the collection, compilation and publication of statistics relating to any matter affecting the general economic and other activities of the Saorstát and in particular all or any of the following matters, (a) population, (b) vital social and education matters, (c) local government, (d) employment and unemployment, (e) emigration and immigration, (f) agriculture, (g) sea and inland fisheries, (h) industry, (i) commerce, (j) banking, insurance and finance, (k) railways, tramways, shipping and other forms of transport, and (l) ancient monuments. Before the powers conferred by the Act can be brought into operation it is necessary for the Minister for Industry and Commerce to make an Order specifying the subject matter, scope and periodicity of the enquiry to be undertaken and to have such Orders laid on the table of the Oireachtas. Notwithstanding the wide scope of this field of enquiry the powers conferred

\* Report of Committee on Economic Statistics, published by Stationery Office, price 9d. net.

by the Statistics Act have so far been used only in connection with Census of Population, Census of Industrial Production, Statistics of Slaughter of Animals for Food, and Statistics of Fresh Fish (Salmon, Trout and Eels) captured. There are several other Acts on the Statute Book which provide compulsory powers for obtaining statistics relating to the following subjects:—

Workmen's Compensation	Workmen's Compensation Act
External Trade	Customs Consolidation Act
Shipping and Migration	Merchant Shipping Act
Road Motor (Passenger) Services	Road Transport Act

The following branches of statistics are collected on a voluntary basis, viz., the Annual Agricultural Statistics, Retail Prices (cost-of-living), Labour Statistics (trade disputes, unemployment, wages), Prices of Agricultural Produce at Saorstát markets, Prices of Live Stock at Fairs. Through the publication of the Statistical Abstract, which contains statistics collected and compiled by other Departments as well as statistics compiled by the Department of Industry and Commerce, the Statistics Branch of the latter Department is brought officially into contact at least once a year with the statistical sections of other Departments. No doubt through this contact the Statistics Office if occasion arose could properly make suggestions to these other Departments as to the improvement or extension of scope of their statistics. To this extent official statistics are almost completely centralised in the Saorstát.

#### *Census of Population.*

The first mention of a Census of Population having been taken in Ireland relates to the enquiry made by Sir W. Petty in 1672; this enquiry was followed by other efforts at intervals until an Act of Parliament was passed, in 1812, providing for the taking of a Census in Ireland. A further Census Act of 1815 under the provisions of which the 1821 Census was collected and compiled marks the establishment of the first reliable population figures for Ireland. From 1821 to 1911 a Census was taken every 10 years and in 1921 preliminary arrangements had been made for such an enquiry but, owing to the political situation, the collection of Census particulars was postponed until 1926.

The Censuses of 1821 and 1831 were compiled from returns completed by each enumerator in respect of the persons residing in the Enumeration District. In 1841 the use of a householder's schedule was initiated and the personal particulars relating to the household were inserted on the Schedule by him. This system of household schedules has been maintained from that date.

The compilation of Census results was shown for areas, i.e., Counties, Baronies, Parishes and Townlands for the period 1821 to 1891. In 1901 District Electoral Divisions were introduced as a unit and the results of the enumeration were published by Counties, Poor Law Unions, District Electoral Divisions and Townlands for 1901 and 1911. Thus, up to and including 1911 particulars for each separate County were shown together, i.e., numbers, conjugal conditions, occupations, etc. The results of the 1926 Census were published by Subject volumes and not by County volumes. Information relating, for instance, to the occupations of the people in each County, Urban and Rural District, etc., of the Saorstát has been shown in one volume.

In preparation for a Census it is very necessary to give as much instruction as possible to those who either directly or indirectly take part in the filling up of the Census Schedule. Before the 1926 Census, circular letters were issued to Clergymen, members of public bodies, responsible farmers, etc., asking for their assistance in obtaining accurate and detailed returns on Census Schedules. School Teachers were requested to make the filling up of the Census Schedules the subject of a lesson for some days before actual Census date. One of the senior officials engaged on Census work gave broadcast talks over the Wireless on Census night and the preceding night with special reference to the filling up of the questions on the Census Schedule relating to Occupations and Industrial Classification. There is no doubt that these educative steps have an important effect on the manner in which the Census information is furnished and tend to the production of reliable Statistics.

The scheme of publication by subject volumes is described later on in the paragraph relating to Statistical Publications.

Up to and including the Census of 1911 the authority under which each Census was taken was an Act of Parliament. The Census of 1926 was taken under powers conferred by the Statistics Act, 1926, and specifically covered by Census of Population Order, 1926. The distribution and collection of forms for the previous Censuses had been carried out by the Royal Irish Constabulary and in 1926 this important work was carried out by the *Gárda Síochána*.

Statistical machinery for Census compilation was introduced for the first time in Ireland for the 1926 Census. No modern type of Census is possible without the use of these machines. The principal feature of the machine process is that all the particulars or attributes given on the Census Schedule for each person in the *Saorstát* who was alive on Census night are transferred by means of punched holes to special cards which can be sorted and counted automatically for all types of information, the wide range of which can be learned from a perusal of the Census Report Volumes. These special cards contain space for 46 columns of figures only and accordingly there is a limit to the amount of information that can be transferred to the cards. This fact has a bearing on the amount and kind of information asked for on the householder's schedule. For instance, in previous Censuses information has been collected and published relating to such subjects as the numbers of afflicted persons, i.e., blind, deaf and dumb, lunatics and paupers, etc., but on account of the inclusion in 1926 for the first time on the Census form of some new enquiries, such as "out of work," industrial classification, etc., certain types of information formerly collected had to be omitted from the Schedule.

#### *Census of Industrial Production.*

The first Census of Industrial Production for this country was taken in 1907 when the Board of Trade, London, took the first Census of Production for the whole of the (then) United Kingdom. The Census related to Industrial Production in the year 1906 and the results were published in a volume entitled "Final Report on the First Census of Production of the United Kingdom" (Cmd. 6320 1912). The enquiry was not extensive so far as Ireland was

concerned but the figures published can be taken as representing at least the minimum quantities of goods produced, manufactured, etc. A second Census for the whole of the United Kingdom was taken in 1913 in respect of the year 1912. The compilation of the returns which had been furnished was interrupted by the outbreak of the European War in July, 1914, and the Board of Trade Statistical Department were not able to resume their work on this Census until after the termination of the War. It was then too late to query the returns which had been received or to endeavour to obtain outstanding returns and it was accordingly decided to summarise those industries or industry groups for which it was considered that the bulk of returns had been received. The results of that Census were not presented in the form of a published Report, but figures for 1912 production were used for comparative purposes in the Reports on the 1924 Census of Production taken for Great Britain and for Northern Ireland. The figures by groups of industries for the area now constituting Saorstát Eireann were subsequently specially compiled by the Board of Trade, London, and are being published as an Appendix to a Report on Industrial Production in the Saorstát 1926 and 1929, though they are not strictly comparable with the figures compiled for those years.

For Saorstát Eireann the first Census of Industrial Production was in respect of the year 1926. According as the material for the different industries, industry groups, services, etc., were summarised preliminary Reports were issued in neostyled form to the Press and to the public in order to give quickly some idea of the extent of manufacturing industry in the country. The first enquiry of this kind made by an untrained staff necessarily took a long time to complete and before all the industries had been reported on, arrangements were being made for the taking of a Census in respect of the year 1929. No final Report on the 1926 Census was published. A final Report on the 1929 Census, containing the figures for 1926 is about to be published. It contains many useful summary tables as well as the detailed Reports on the several industries, etc., together with a short analysis. The latter, by the way, includes an estimate of the annual value of the production of material goods in the Saorstát including the value of the output of Agriculture and Fisheries. A Census of Production was taken for 1931 but results are not yet ready for publication. It is proposed to take similar Censuses quinquennially in the years 1936, 1941, 1946, etc. Partial Censuses, partial both as to the extent of the enquiry amongst industries and partial as to the amount of detail information asked for, will be made annually in the intervening years.

So much for the history of Census of Industrial Production in this country. These enquiries provide information respecting the industrial production of the country classified according to 35 industries or industry groups (including services such as laundries, construction and maintenance work done by employees of and maintenance work on railways, harbours, etc., Local Authorities and Government Departments). The tables compiled relate to the following matters (*a*) gross output (quantities and values) of each principal article manufactured; (*b*) quantities and values of principal raw material; (*c*) quantity and value of fuel, electricity, gas, etc.; (*d*) packing material; (*e*) personnel; (*f*) seasonality of employment;

(g) salaries and wages; (h) capacity of engines; (i) location of the industry.

When the 1926 Census was being taken it became apparent that only the large concerns were included in the early British Board of Trade inquiries. Although most of the industrial firms were unfamiliar with what must have seemed long and complicated forms of return, the response was splendid even from small concerns whose meagre business records added to their difficulties. Naturally returns were not received from all small concerns but a sufficient number were received to permit of estimates being made of the total value of output.

On grounds of economy—as well, I will admit, as by reason of difficulty in obtaining a complete satisfactory return without a great deal of trouble—the enquiries subsequent to 1926 have not included those very small businesses which are mostly engaged in repair work or in personal occupations such as dressmaking, etc., in their own homes. In the Saorstát it is estimated that this type of small business accounts for goods made or work done to the value of approximately £13½ million, a very big figure.

The Census is taken for the calendar year, but certain industries are seasonal and it is the custom of those engaged in them to keep their books and accounts according to periods other than the calendar year, e.g., Maltsters, Fertiliser Manufacturers. In all such cases permission is readily given to substitute for the calendar year the twelve months period most nearly corresponding to the year of enquiry. Running through all the systems of statistics the same scheme of classification is adopted and it is therefore possible to relate Industrial Production figures with Trade Statistics.

#### *Agricultural Statistics.*

In June each year visits are paid by members of the *Gárda Síochána* acting as official enumerators to every farm in the country and a record is made from information furnished of the number of holdings, classified by size and valuation, of the extent of area planted that year with the several crops, wheat, oats, barley, potatoes, turnips, first year's hay, pasture, etc. The numbers of the different classes of live stock on the farm are also recorded according to kind, e.g., cattle group (calves, milch cows one to two-year old, etc.), sheep, pigs, horses—each group being subdivided into categories. Statistics are also obtained of the numbers of persons engaged in farm work. Later in the year the enumerators obtain estimates from the farmers in each Electoral Division of the average produce of each crop. Hay crop enquiries are made in September, those for grain crops in October and November and corn and root crops in November and December. Electoral Division averages are worked out and tested by reference to a small set of sample returns received direct in the Statistics Office from the Agricultural Instructors (of the Department of Agriculture) for the several counties. The average produce of each crop in each Rural District is found from the rates in each Electoral Division and is applied to the extent under the crop to determine the total produce. The live stock figures collected in June give maximum figures as the young stock in most classes are born in the first half of the year. Countries should be provided with some indication of the minimum figures.

This enquiry would not be made each year but the results of one enquiry could be used for a number of years provided the annual June enquiry is made. Advantage is taken at the time of the collection of the agricultural statistics to include from time to time headings for supplementary information such as milk yields, egg yields, extent under varieties of potatoes, births of calves, numbers of agricultural machines. The replies received are excellent and furnish a very solid basis for estimating for the whole country.

I should like here to pay a special tribute to the Gardaí throughout the country for the efficient manner in which, year after year, acting as enumerators they have made an almost perfect survey of the state of agriculture in the country. The farmer or his representative who furnishes the original data must also be congratulated on the high standard which these statistics have achieved. In this connection I would like to refer to the World Census of Agriculture, 1929/'30, in which almost every country of the world participated—the work was organised by the International Institute of Agriculture, Rome, the representatives of the Rockefeller Foundation and to state that the first Report issued in connection with the Census was that for the Irish Free State. The Annual Agricultural Statistics of Ireland extend back in an almost unbroken record to the year 1847 and are the finest agricultural statistics in the world. The centrally controlled body of efficient enumerators is largely responsible for this satisfactory state of affairs.

#### *Output of Agriculture.*

The annual agricultural statistics of extent and average rates of produce of crops furnish satisfactory figures of quantities of the different crops produced; these quantities are divided, on the basis of special enquiries into (1) the amounts used for further agricultural production (i.e., as seed and as food for live stock) and (2) the amounts sold by the agricultural community or consumed in farmers' households. Only the latter part (2) is taken into account when calculating the value of the annual output of agriculture. The output of live stock consists of the increase in stocks (exported, consumed as meat, or added to stock). A special report on the output of agriculture is published quinquennially.

#### *Trade Statistics.*

In most countries the returns from which the trade statistics are computed are obtained under fiscal system regulations. It is only since 1924 that such statistics have been available for this country. When the D.A.T.I. was established in 1900 a system of trade statistics was set up; harbour authorities and shipping companies voluntarily furnished returns of gross weights of goods of each description loaded or discharged to which annual average "official" prices were applied. These returns referred only to the cross-Channel trade with Great Britain. Trade between Irish ports and Foreign Countries were compiled as furnished under Customs Regulations. Reports have been published annually from 1904 to 1921 inclusive. These statistics were necessarily very imperfect, but possessed some value for purposes of comparison. Powers were sought, but without avail, to obtain compulsorily declarations of the cross-Channel trade with Great Britain. During the European War the Ministry of



Food were given compulsory powers to obtain returns relating to Foodstuffs and they delegated to the Department of Agriculture those powers in reference to statistics of quantities of certain foodstuffs imported and exported at Irish ports from and to all countries. When the Saorstát was established and the Saorstát Government as from 1st April, 1923, took over control of the Customs, these automatically were made available data for a full system of trade statistics based on "declared" quantities (net weight) and values. It is generally known that the law requires importers and exporters or their agents to complete and certify documents on which are inserted particulars of the article imported or exported, according to descriptions in the official import and export lists, of net weight, the value (c.i.f. in the case of imports and f.o.b. in the case of exports) the port or place on land frontier in the Saorstát at which the goods were loaded or unloaded, country from which consigned (imports) or of final destination (exports) and in the case of a limited number of articles imported, the country of origin. From the information on these documents the trade statistics are compiled according to the country from which consigned and in certain cases origin (imports) or final destination (exports). The Accountant-General's Department of the Revenue Commissioners compile the statistics of imports of goods liable to Customs duties and of certain exports of exciseable articles and also most of the statistics of goods in transit and forward summaries each month to the Statistics Branch of the Department of Industry and Commerce where Statistics for all other imports and exports are compiled. The latter office is responsible for the analysis and publication of the Trade Statistics Reports. Publication is made by monthly statements (16 pages) giving the figures for the principal articles and for groups of articles and by very detailed Annual Reports (300 pages) on Trade and Shipping Statistics in which the quantities, where available, and the values of each item specified in the Official Import and Export Lists are recorded. The latter publication also includes a section in which are given details of the Saorstát trade with some 70 Countries. In this annual publication the average prices of the total imports and exports of each item are shown.

The International Convention on Economic Statistics (1928) required that each country ratifying the Convention should compile for an experimental period of 12 consecutive months a table of imports according to the three classifications (a) Country of origin or production, (b) Country of consignment or provenance, and (c) Country of purchase, and a table of exports according to (a) Country of consumption, (b) Country of consignment or destination, and (c) Country of sale. The tables when compiled are to be sent to Geneva where they will be examined by a small Committee of Experts. As a result of that examination a recommendation will be issued signifying in which of the ways mentioned above the Trade Statistics of Countries should, for international purposes, be compiled. Each country is permitted to select a list of articles suitable for this classification but the Committee of Experts suggested a full list of articles, most of which should, if possible, be included. In this country imports and exports are ordinarily compiled according to the (b) classification (i.e., country of consignment) in both cases. A list of ten articles, later extended to 15, was drawn up for which information regarding country of origin or production, as well as

country from which consigned, is asked for on the Customs forms. As the volume of trade with Great Britain is so large and as it is known that the country of consignment is usually the country of purchase, it was decided not to require particulars about (c) for imports. Then as regards exports, the Saorstát trade in 1931 was 96% to the United Kingdom, 95% being retained there for consumption; accordingly it would not warrant the unavoidable expense and trouble to require exporters to state on all documents particulars for (a) or (c) in the export classification above.

In the ordinary process of compilation of the Trade Statistics, as stated already, the Office of the Revenue Commissioners compile particulars relating to dutiable imports in the fullest detail for *all* consignments however small. In the case of free goods imported, of which small consignments form a considerable bulk, the latter are compiled according to a ten per cent. sample basis. There is a considerable economy of staff and time effected by this process, while the margin of possible error would not be more than three or four per cent. After working on a sample basis for seven years a full examination is now being made covering a period of six months and it will be seen how far the sample system worked satisfactorily. It is quite possible that with the increased tariff list, the number of "free" small consignments may have diminished considerably, and that the size of the sample will be found to be too small to be dependable.

A sample system was in operation for a few years for parcels post both for description of items as well as for value of contents, and resulted in a possible "break up" of the total numbers of all parcels containing non-dutiable goods imported and all outward parcels. The Department of Posts and Telegraphs co-operated in this work, the results of which were published in the Annual Trade Reports.

#### *Railway Statistics.*

Railway Returns were published annually by the Board of Trade for a number of years up to year 1914. The Railway Companies were obliged by the Regulation of Railways Act, 1871, to furnish information from which the statistics were compiled. In 1911 the law with respect to the Accounts and Returns to be furnished by Railway Companies was amended. The first returns received under the 1911 Act were for the year 1913 and the statistics for that year were published in a revised and more comprehensive form. The publication of the Returns was suspended during the period of the Great War and was not resumed until 1919 when the powers conferred upon the Board of Trade under the 1911 Act were transferred to the Ministry of Transport set up under the Ministry of Transport Act, 1919. For two years after the period of the passing of that Act the newly-formed Ministry were empowered to collect returns in such manner and form as the Minister might direct. From 1920 monthly statistical returns were collected and published by the Ministry of Transport under the powers conferred by the 1919 Act. A new departure was made in these statistics. For the first time Railway Companies were compelled by law to render monthly returns relating to passengers and goods carried and gross receipts, detailed returns relating to "operation," e.g., Train and Engine-miles, Wagon-miles, Ton-miles, Passenger-miles, Construction and

Maintenance of Rolling Stock, etc. These statistics were generally referred to as the "new statistics of operation." The temporary powers conferred on the Ministry of Transport were confirmed by the Railways Act, 1921.

On the setting up of the Saorstát the powers (including those relating to returns and accounts) conferred on the Ministry of Transport were taken over by the Department of Industry and Commerce in relation to those railways operating wholly or partly in the Saorstát. From 1923 therefore the Railway Statistics are compiled and issued by that Department. In so far as the railways operating partly within the Saorstát and partly in Northern Ireland are concerned, it is not practicable to collect financial and operation statistics in respect of those portions of the line actually situated in the Saorstát. Accordingly, any statistics issued in so far as these railways are concerned relate to the whole of the line irrespective of location. The only exception is the returns of staff employed which relate only to employees whose headquarters or depots are situated in the Saorstát.

The statistics are published annually by the Department of Industry and Commerce as the "Returns of Railway Companies," the financial section being compiled by the Transport and Marine Branch and the statistics of operation and of staff by the Statistics Branch.

#### *Shipping Statistics.*

The Customs authorities furnish monthly returns of vessels that arrive at and depart from ports in the Saorstát showing name of vessel, port from or to which vessel came or went, net registered tonnage of vessel, whether arrived or departed "with cargo" or "in ballast," and a general description of the cargo. Vessels which do not load or unload cargo or mails are recorded as "in ballast" although they may have cargo or mails on board. Separate statistics are published for mail carrying vessels as distinct from other "cargo" vessels. While a general description of cargo carried is given no figures for the weight loaded or discharged are returned. The recording of the total weight of cargo loaded or discharged would be a distinct improvement in these statistics. Separate statistics are available for coasting trade and foreign trade. Not only vessels arriving or departing directly between the Saorstát and foreign ports but vessels calling from port to port in the Saorstát are deemed to be in the foreign trade so long as any of the cargo loaded at a foreign port or intended for a foreign port remains undischarged.

#### *Road Transport.*

Figures are obtained and published each month in reference to the Road Motor Passenger Services. No corresponding statistics relating to goods services have yet been collected. The monthly returns provide information from each licensed road motor (passenger) service showing numbers of passengers carried, vehicle-miles run, total gross receipts (including any receipts from the carriage of mails and goods). At half-yearly intervals statistics of the numbers employed in connection with the road motor (passenger) services are obtained as well as rates of wages paid to those employed in each occupation classified according to a specified list of occupa-

tions. Owing to the rapid development of the services in 1927 it was decided that statistics as outlined above should be collected and accordingly an Order was made under the Statistics Act requiring returns. When the Transport Act, 1932, was being drafted clauses were inserted in reference to the returns and the powers under which the statistics are now obtained were transferred from the Statistics Act to the Transport Act.

#### *Migration.*

The statistics available relate to passenger movement into and out of the country by sea. Particulars of passenger movement across the land frontier between the Irish Free State and Northern Ireland are not available.

Returns of the number of passengers carried between ports in the Irish Free State and ports in the United Kingdom are received monthly from the various Shipping Companies.

The master of every ship calling at Irish Free State ports which carries any passenger from or to a place out of Europe and not within the Mediterranean Sea furnishes to the migration authorities at the ports lists of all passengers (landing or embarking as the case may be). These lists contain the following information in respect of each passenger:—

Name of passenger; address in the United Kingdom (last or proposed as the case may be). (Addresses in the Irish Free State are given on the forms); class of travel; port at which passenger has contracted to land or port of embarkation as the case may be; profession, occupation or calling of passenger; age of passenger; sex; whether accompanied by husband or wife; country of last permanent residence and country of intended future permanent residence (by permanent residence is meant residence for a year or more); nationality of passenger.

The Board of Trade, London, furnish by arrangement particulars of “permanent” migrants to and from the Irish Free State from and to countries out of Europe and not within the Mediterranean Sea who travel via ports in the United Kingdom. A person leaving “permanent residence” in the Saorstát to take up “permanent residence” abroad would be considered an “emigrant” and *vice versa*.

From the foregoing it will be seen that the only statistics of “permanent” migration at present available are those relating to movements to and from countries out of Europe and not within the Mediterranean Sea. It is not possible from the returns received to compile statistics of (a) “temporary” migration to these countries or (b) either “permanent” or “temporary” migration to other countries.

Statistics are available of *direct* passenger movements between the ports in the Saorstát and ports in all other countries. There are practical difficulties in the way of an attempt to secure precise information in reference to “permanent” migration to Great Britain and Europe. It is understood that permanent migration between the Saorstát and Europe is comparatively insignificant. The statistics of permanent migration are published annually in the Irish Trade Journal and summary figures are published quarterly in the issues of the same publication. Statistics of Cross-Channel passenger movement are published in the Statistical Abstract for the Saorstát.

For many years up to 1904 an annual Report was published on statistics relating to migratory agricultural labourers. The police furnished returns compiled from information gathered locally in the rural districts in June of the numbers of, extent of land held by, and family relationship of, labourers who had left or who intended to leave those areas for temporary work on agriculture in Great Britain. This information was supplemented by returns from the Railway Companies of the numbers of harvesters' tickets issued by them as well as by information furnished by the Shipping Companies. The number of these labourers had been decreasing for years and after the interruption of the collection by the War the statistics were not resumed.

### *Prices.*

The prices statistics which are compiled specially are average prices of live-stock at Fairs, the market prices of certain kinds of agricultural products, the retail prices of feeding stuffs, agricultural seeds and fertilisers, and the retail prices of certain commodities which enter into the Family Budget used for computing what is familiarly known as the Cost-of-Living Index Numbers. The returns are furnished voluntarily. Prices of goods imported and exported are also compiled from the Trade Returns and are published in the Annual Trade Reports. Prices of live-stock are collected on a different basis from prices of other agricultural produce. The former are furnished by important persons in the live-stock trade who reside in or about the towns at which fairs are held. The Statistics Branch, in collaboration with the Department of Agriculture, arrange which fairs each month in different areas of the country are to be reported on and the "Fair Reporter" (usually a farmer or dealer of importance) furnishes the return. Special returns of the prices of fat stock sold at the Dublin Cattle Markets are obtained each Thursday, and a statement is issued to the Press and correspondents that evening giving particulars of numbers of beasts offered for sale, average weight per cwt. dead weight. This information, with other general information concerning agriculture, is broadcasted officially on Thursday evenings.

The other agricultural produce dealt with comprise crops—wheat, oats, barley, potatoes, etc., and live-stock products—butter, eggs, wool, etc. Prices at *weekly* intervals are received from market reporters who reside in the principal towns of the Saorstát at which such market prices can regularly be obtained. These reporters are usually officials of the Local Authority, agricultural instructors, journalists, etc. The average prices for the Saorstát are compiled *monthly* and are published quarterly in the Irish Trade Journal. The daily Press, however, provide up-to-date prices of specific kinds of live-stock and agricultural produce at particular places, and in fact publish many of the reports issued by the Department but no general averages showing trends are compiled by them.

The *retail* prices obtained for the compilation of the quarterly cost-of-living index numbers are only for a representative number of items of food, clothing, fuel, and light, rent, etc. Two sets of independent returns are obtained, one from the 98 Employment Exchanges and Branch Employment Offices in the Saorstát and

another set from 162 Post Offices and Sub-Post Offices throughout the country, and which comprise almost all the towns covered by the Employment Offices returns mentioned above. Separate index numbers are constructed (base July, 1914 equals 100) from both sets of returns, and provide an efficient check on the accuracy of the final figure arrived at. As well they help in the verification of the original data and the querying of the returns. The Report on the Cost-of-Living, June, 1922, explains fully the procedure according to which this series of price index numbers is compiled.

Similar index numbers are compiled in almost every civilised country of the world. An American publication, "Cost of Living in Foreign Countries," contains a detailed account of the scope of the inquiries in a large number of countries. In some countries the inquiry is confined to a single large city only, in others to two or more cities or large towns, in others to particular classes of the population. The majority of countries, however, confine their inquiry to the "Working Class" standard. The prices are weighted by a budget expenditure of the class to whom the index number applies. The popular title, "Cost-of-Living Index Number," is not quite correct, the index number in fact registers only the "percentage change in the cost of maintaining a fixed standard of living." The results of the quarterly inquiries into changes in retail prices are published in the Irish Trade Journal.

The *Import and Export* prices, as their name implies, are merely annual average prices of the different kinds of goods imported and exported. They are a poor substitute for wholesale prices, and do not include amounts of Customs Duties in the case of imports or Export Bounties or rebates allowed on excise duties in the case of exports. There are not a sufficient number of wholesale businesses in the country nor a sufficiently big volume of wholesale trade from which could be obtained a satisfactorily large sample of returns on which to base wholesale prices.

#### *Index Numbers.*

All statistics can be expressed by way of index numbers, but prices statistics are particularly suitable for this form of presentation. Unlike statistics of population for which exact numbers can be obtained statistics of prices deal more with averages and are more easily understood when expressed in the form of index numbers.

The cost-of-living index number has already been referred to.

The agricultural produce prices index numbers are calculated both on the monthly and the annual average prices and are published in the Irish Trade Journal. An account of the manner in which the series of *monthly* index numbers is compiled was given in the Journal for December, 1931, while an account regarding the present series of *annual* index numbers appeared in the Journal for May, 1930. A series of index numbers for animal feeding stuffs, agricultural seeds and fertilisers has also been commenced and a short account of the basis on which the numbers are compiled was given in the Journal for March, 1932.

The import and export prices index numbers have been compiled since 1924 and are published in the Annual Trade Reports for each year up to 1930. At first monthly index numbers were calculated for imports only and the export price index numbers were for periods.

of a whole year. The reason for this was the important seasonal fluctuations in the quantities (by which the average prices were weighted) of the principal classes of goods exported. After some years observation of these seasonal movements it has been possible to calculate monthly export price indices making allowance for seasonality. Monthly index numbers of prices are now calculated for both imports and exports and an explanation of the method of their construction was given in the Annual Trade and Shipping Statistics, 1930, and in the issue for the December quarter, 1929.

### *Labour Statistics.*

This section comprises a miscellaneous group of subjects each of which has a sort of independence of its own. They relate principally to unemployment, trade disputes and changes in wages. Unemployment statistics are continuous and are derived from the working of the Employment Exchange Act and the Unemployment Insurance Acts. Statistics of trade disputes and changes in wages are collected only occasionally, as and when such disputes or changes occur.

The principal statistics relating to Unemployment are (1) numbers of persons registered at the Exchanges for employment (Live Register), (2) numbers of persons making fresh claims and number having current claims to Unemployment Insurance Benefit and numbers of vacancies notified, filled and remaining unfilled, (3) amounts paid in Unemployment Benefit and number of individuals to whom paid. In the Statistical Abstract there are tables showing for each of the years 1924 to 1931 (1) numbers of persons on Live Register on first Monday of each month, (2) numbers of vacancies notified and filled, (3) total receipts and payments in respect of Unemployment Insurance, (4) total number of insured population, (5) number of insured persons paid Benefit during the week ended on first Monday of each month and (6) industrial classification of the persons insured during the latest Insurance year.

Two reports are furnished by managers of Employment Exchanges and Branch Employment Offices in reference to each Trade Dispute, one when the dispute commences, setting forth name and address of firm or organisation involved, cause of dispute and numbers of workpeople directly affected, and a second report on the termination of the dispute, stating terms of settlement. A short annual report on Trade Disputes is published in the Irish Trade Journal classifying, by industry groups, the numbers of disputes, causes of dispute, numbers of persons directly involved, working days lost, methods of settlement and results of settlement.

Statistics of Changes in Wages are in a very undeveloped state. Occasional reports are received from Labour Exchanges or notices are seen in the daily or the trade press and inquiries are then made. Such information as can be obtained is recorded and may prove useful at some later date when some progress can be made in these statistics.

At the end of each year the Employment Exchanges collect and forward to the Industries Branch of the Department of Industry and Commerce lists of current rates of wages and hours of labour for some 32 different occupations in the towns where the Exchange or Branch Employment Office is situated. These records are avail-

able since and including 1929 and provide adequate material for statistical treatment and for presentation in tabular form as part of a study in the trends of rates of wages.

The branches of statistics enumerated above are the "major" systems of statistics collected and compiled in the Statistics Office. There are a large number of "minor" statistics collected regularly and published, e.g., Pig Killing statistics, numbers of Live Stock exported to Great Britain and the Isle of Man, wages of Agricultural Labourers, returns of numbers of animals slaughtered for food, Workmen's Compensation statistics, etc. A large number of regular special returns are prepared for Government Departments, representative of Foreign Governments, business firms and members of the public. In some cases where the work of special preparation of returns for business firms or the public is outside the usual routine, a charge based on the actual extra time occupied has to be made for the returns. In addition to these special returns the Statistics Branch receive daily requests for statistical information, both of general and specific kinds, or for particulars regarding sources of information.

#### *Official Statistical Publications.*

There are two opinions concerning the presentation of official statistics; one opinion is that as much tabular matter as possible, with very little comment, should be given, with an ample supply of definitions and explanations of what the figures in the tables refer to, and the other that the tabular matter should be strictly limited, but that elaborate analyses with numerous summary tables illustrated by graphs and charts should be presented. In the Saorstát we try to take a middle course between these opinions and the plan of publication is, if possible, to cover each principal subject for which statistics are compiled with a full report, tables and analysis once every five years and in the intermediate years to present tabular matter only with explanatory notes.

#### *The Annual Statistical Abstract.*

It is in connection with the compilation of the Annual Statistical Abstract of the Saorstát that centralisation of the statistics of the country is manifested, and that direct contact is made with the Departments which compile statistics as by-products of their administration. The Abstract for the year 1931 was the first number of this series of publications. Necessarily the information is of a condensed character on account of the wide range of subjects to which the statistics refer. The following are the principal headings in the Abstract:—(1) Area, Population, Movements and Distribution of the Population; (2) Agriculture, Land Purchase, Fisheries and Industrial Production; (3) External Trade; (4) Social statistics; (5) Education; (6) Justice; (7) Defence; (8) Finance; (9) Transport and Communications; (10) Miscellaneous (Prices, Business Organisation, Patents), and (11) International Tables (Area, Population, Vital Statistics, Agriculture, Trade, Prices).

*Trade and Shipping Statistics.*—Annual reports giving in detail imports and exports, quantities and values for all items on the official Import and Export Lists with an analysis of the Trade at



five yearly intervals, and monthly statements of total trade giving details for the principal imports and exports.

*Agricultural Statistics.*—A detailed report at five-yearly intervals, annual statements in leaflet form giving extent under the various crops and numbers of live stock as at 1st June, statistics of the estimated produce of the crops, and at five-yearly intervals report on the estimated annual output of agriculture in the Saorstát.

*Census of Population.*—The following eight subject volumes of the Report on the 1926 Census of Population have been published:—(1) Population by Areas; (2) Occupations; (3) Religions and Birth-places; (4) Housing; (5) Ages and Conjugal Conditions; (6) Industrial Status; (7) Industries; (8) Irish Language. A volume on Dependency is at the moment in the hands of the printers, and these volumes, together with a Final General Report on the Census (most of which has already appeared in neostyled form) will complete the publication of information compiled from the 1926 Census.

*Census of Industrial Production.*—Censuses were taken in 1926, 1929 and 1931. Neostyled reports have been issued containing the detailed reports for each industry for 1926 and 1929, and a Final Report embodying the results of these two Censuses, with summary tables and analysis, will be published shortly. The compilation of the 1931 Census is proceeding.

*Transport Statistics.*—Annual reports on the working of railways in the Saorstát are published by the Transport and Marine Branch of the Department of Industry and Commerce. These Reports contain a large number of statistical tables compiled by the Statistics Branch. Monthly summaries of the returns of Road Motor Passenger Services are compiled and issued regularly to the Press.

*Agricultural Prices.*—Daily fair reports are compiled from returns received from official reporters at the principal fairs held throughout the Saorstát and issued to the Press, and a large number of interested persons.

*Workmen's Compensation Statistics.*—An annual report is published containing particulars of numbers of cases in which compensation is paid, amounts paid, duration of cases in respect of both accidents and industrial diseases.

*Irish Trade Journal.*—This Journal is produced quarterly by another Branch of the Department of Industry and Commerce, and contains a considerable amount of statistical information for which there is no other outlet for early publication. The following are statistics which appear regularly each quarter:—Cost-of-Living, Migration, Agricultural Prices, Bacon Produce, Fishery Statistics, Banking Statistics. The following other statistics are published with short introductory reports:—Staff employed by Railway Companies, Catches of Fish in Inland Waters, Industrial Disputes, Annual Survey of Road Motor Passenger Services, Annual Survey Agricultural Wages.

#### *Statistics Compiled and Published by other Departments.*

The only branch of statistics compiled by another Department which is not merely a by-product of its administrative work is Vital Statistics. They are compiled from returns furnished by the Local Registrars of Births, Deaths and Marriages to the Department of

Local Government and Public Health. There is a fund of other useful and important statistics which emerge as by-products in the administrative work of a number of Government Departments. These mostly appear in the appendices to the Annual Reports on the work of the several Departments.

Perhaps the most important set of statistics published in this manner are those which appear in the Annual Reports of the Revenue Commissioners. They show amounts of Revenue received from each principal source of Revenue—Customs, Excise, Income Tax, Death Duties and Estate Duties, Licences, etc. Statistics relating to amount spent on education, numbers of schools, numbers of teachers, numbers of pupils classified by type of schools and by locality are to be found in the Annual Reports on Education. The Department of Local Government publish the Local Taxation Accounts and the Annual Reports of the Department contain a considerable amount of miscellaneous statistical information. The Department of Finance publish Estimates for Public Services, Finance Accounts, and periodical Statements of Saorstát Receipts and Expenditure.

The following are some Public Departments, etc., whose Annual Reports contain statistical information. The Reports of the Registrar-General; the Irish Land Commission; National Health Insurance Commission; Commissioners of Public Works; Department of Agriculture; Inspectors of Mental Hospitals; Department of Lands and Fisheries (Sea and Inland Fisheries); Reports on the Factory and Workshops Acts; Commercial Accounts of the Post Office; Reports on Assurance Companies; Reports of the Controller of Industrial and Commercial Property, etc., to which might be added the Reports of the Currency Commission and the Reports of the Electricity Supply Board.

The more important general figures appearing in these reports are extracted and included in the tables of the Statistical Abstract.

### *Library.*

A statistical office working without the use of a statistical library has been likened to the growing of crops without fertiliser. A library containing the statistical works of this country as well as the statistical publications of other countries is an essential adjunct to the efficient working of the statistics office. The library is built up mostly without much cost, as the statistical services in the various countries usually arrange for an exchange of their publications.

It is interesting to note that in order to help the foreigner to make use of the Statistical Abstracts or Year Books of a number of non-British and non-French countries the headings of the tables, the preface, footnotes, contents page and index are given in French as well as in the language of the country itself. Amongst the countries whose publications are received in the library and to which the above remark applies are Norway, Sweden, Denmark, Holland, Finland, Latvia, Poland, Switzerland, Czecho-Slovakia and Greece. It is possible there are others. The inclusion recently of an Inter-

national Section in the Year Books or Statistical Abstracts of many foreign countries has helped to lighten considerably our work in drawing up an International Section in the Statistical Abstract of this country though checking up and verification is necessary. The library now consists of about 16,500 volumes, not including a further 12,000 volumes appropriate to the library of a Statistical Office taken over from the Office of the Registrar-General and which might be regarded as archives rather than of use for current work.

#### *Statistical Councils.*

In a number of countries an important part of the organisation of the Statistical Service is the existence of an official Statistical Council acting in an advisory and consultative capacity to the Central Statistical Authority but with no executive functions. The Councils, as will be seen from the accounts of the organisation of official statistics in other countries, which are given later in the paper, are of different types and are usually drawn from the ranks of prominent statisticians, economists, university professors and businessmen and from responsible officials in the several Government Departments charged with the collection of certain branches of statistics or from officials in those Departments which make much use of the statistics. Some countries have even two Statistical Councils. In France, for instance, there exists a Conseil Supérieur de Statistique consisting of 70 members chosen from the principal groups of the population, and including persons of recognised authority on demographic, economic and social questions, as well as representatives of the Departments who use the statistics. Meetings are held only at long intervals. There is also "Le Conseil de la Statistique Générale de la France" made up of 12 members who meet twice a year and report annually to the Minister in charge of the Statistics Department. In Italy the law of 1926 provided for the appointment of a Superior Statistical Council to be elected every three years consisting of five members nominated by Royal decree to be selected from the Universities, Chambers of Commerce and persons interested in statistics and economics, and three members selected from the staff of the Statistical Department and three from the principal "syndicate" organisation. The functions of the Council were to organise the Central Institute of Statistics, to draw up a programme of statistics to be compiled, to suggest to the Government new branches of statistical enquiry. In Soviet Russia there is a Central Statistical Council as part of the Central Statistical Administration of the country. Greece and South Africa are also among those which have Statistical Councils.

#### *International Statistical Organisations.*

In the forefront of all statistical organisations in the world stands the International Institute of Statistics, with headquarters at The Hague, Holland. The names of the principal officers of the Institute from its foundation in 1885 are sufficient to establish its authority. At the present time the President is F. Zahn (Munich) the Vice-Presidents W. F. Willcox (New York), A. Julia (Brussels), M. Huber (Paris), Secretary-General H. W. Methorst (The Hague), and Treasurer A. L. Bowley (London). The Institute is maintained by means of annual subscriptions from the Governments of the

principal countries and from a large number of municipalities and from its members. Membership is limited to 200 and it holds meetings biennially at the capital city of one or other of the different countries of the world. Since the termination of the European War meetings have been held at Brussels, Rome, Cairo, Warsaw, Tokio and Madrid. The Institute publishes a very full monthly bulletin of statistics (to be changed to a quarterly publication as from the beginning of this year) as well as rather bulky bulletins containing accounts of the proceedings, as well as copies of papers read, at the biennial Conferences.

The International Institute of Agriculture at Rome was established in 1905 by an international treaty which was ratified by forty Governments, and 10 other Governments have since adhered to the Institute. Due credit for the foundation of the Institute must be given to Mr. David Lubin of the United States of America, who conceived the idea of, and urged the necessity for, the establishment of such an Institute. The King of Italy endowed the Institute with a permanent office at Rome and with an annual subvention. It is a Government Institution in which each country is represented by delegates and is altogether maintained by subscriptions from the adhering Governments. The Statistics Branch of the International Institute of Agriculture is their most important section. The Institute publish a monthly statistical publication entitled "The International Review of Agriculture."

The League of Nations Economic and Statistical Section publish many annual works relating to statistics such as the Balance of International Payments, Review of the World's Trade, World Economic Survey. Their monthly Bulletin of Statistics contains most up-to-date statistics of the different countries of the world, classified according to a number of subjects.

The International Labour Office, Geneva, confines its activities as far as statistics are concerned to labour statistics, and those social and economic statistics directly affecting labour. The Office publish a monthly International Labour Office Review, which contains regularly a considerable amount of statistical matter. They have also issued a number of publications bearing on statistical matters in their series, "Studies and Reports."

The International Institute of Commerce, Brussels, collect statistics dealing with the trade of various countries. These are published monthly in their "Recueil Mensuel" with other statistics relating to production, average prices, etc.

Though these bodies endeavour to collaborate with one another as far as possible, there must be a considerable amount of overlapping. The Economic Section of the League of Nations, the International Labour Office and International Institute of Agriculture at Rome may be regarded as inter-governmental institutions, whereas the other two bodies owe their origin to non-official sources. Through the agency of Preparatory Committees and Mixed Committees drawn from members of two or more of these bodies a degree of co-operation is maintained. This is markedly so as between the League of Nations and the International Labour Office, where the fullest co-operation exists by means of a joint Committee consisting of the statistical officers of the two organisations. The

Saorstát contributes regularly to international statistics by sending to the above International Statistical Organisations at monthly intervals, statistics on a number of subjects for inclusion in the monthly bulletins or journals published by those organisations.

#### *International Conferences.*

From time to time responsible international bodies convene meetings of statisticians from the various countries, at which methods of collection, compilation and publication of different branches of statistics are discussed and agreement arrived at, as far as possible, with a view to securing uniformity of treatment, and thus making them available for accurate international comparisons.

The Saorstát has been represented at some of these conferences held under the auspices of the International Labour Office, Geneva, and the International Institute of Agriculture, Rome.

The biennial meetings of the International Institute of Statistics are largely attended by statisticians, both official and non-official, from the various countries. At these meetings papers by recognised world authorities on statistical problems, the results of statistical investigations and matters pertaining generally to statistics are read, and general discussions on the papers take place. The conferences also serve to bring together the representatives of the statistical authorities of the several countries, enabling them to cultivate that personal touch which is most desirable amongst the officials in the various countries engaged on the same problems, population, trade, production, etc., etc.

International comparisons is one aspect of statistics that is occasionally lost sight of. Of recent years, thanks to the types of conferences just alluded to, it has been found possible to include in the published official statistical reports of countries satisfactory comparative figures for other countries. Methods have been agreed upon, definitions have been laid down, and a uniform classification on broad lines has, in many branches, been adopted. Just now the various countries are considering a draft customs nomenclature to secure uniformity in the presentation of Trade Statistics, and a draft convention relating to Transport Statistics. An International Committee of Study nominated by the International Institute of Statistics and the League of Nations are concerned with drawing up a convention on the subject of Migration Statistics. Another committee is engaged on Criminal Statistics.

Official statisticians of the Scandinavian countries, Norway Sweden, Denmark and Finland, hold regular conferences at which their plan of work is discussed and agreed on on general lines. For the International Sections of their respective Year Books they each undertake the preparation of certain tables and pool their results.

## **II.—ORGANISATION OF OFFICIAL STATISTICS IN SOME OTHER COUNTRIES.**

The following brief descriptions of the organisation of official statistics and their history in some other countries are submitted by way of information and contrast. A number of countries whose

statistical service is very advanced such as Poland, Germany, Czecho-Slovakia and others have had to be omitted partly on account of the difficulty of readily obtaining recent authentic accounts of their organisation and partly on account of space. This whole subject, however, could form material for another paper to be read before this Society. The few countries for which some account is given can be grouped into (1) Scandinavian Countries (Norway Sweden and Denmark), (2) Great Britain and British Dominions (Great Britain, Canada, Australia, New Zealand and South Africa), (3) European Continental Countries (France, Italy, Russia, Greece), (4) United States of America.

#### *Norway.*

A Statistical Bureau was first organised in Norway in 1837 but for some time preceding the establishment of the bureau a fairly considerable amount of official statistics had been collected by the Department of Finance. After functioning for some years the Norwegian Government in 1875 reorganised their official statistical organisation and set up under the Minister for the Interior an independent institution known as "The Central Statistical Bureau" with a Director as its chief and with a separate Budget. The Bureau has direct control over all statistics except those belonging to special expert administrations such as medical statistics, statistics of insanity, recruiting, etc. In 1914 a separate office for Social statistics was set up under the Department for Social Affairs, Commerce, Industries and Fisheries. At present the Bureau acts independently although under the control of the latter Department. There are subordinate statistical branches in the Department of Justice, Department of Finance, Department of Education, Department of Defence, The Postal Service, the State Insurance Institute and the Bureau of Fisheries. The first volume of the Statistical Year Book was published in 1879 and a monthly publication has been published regularly since 1882.

#### *Sweden.*

Swedish official statistics may be said to date from 1748 when the Government passed a law in respect of the making of tabular records which were principally concerned with population statistics. By a royal decree in 1756 a separate statistical authority was set up. For nearly a hundred years population statistics were collected at varying intervals and in 1811 an attempt was made to collect agricultural statistics. Several Departments of administration also issued from time to time reports which contained statistics, but in 1858 the Tabulating Commission was transformed into a Statistical Department for the purpose of securing uniformity and unity between the different branches of statistics. Gradually the various departments began to collect statistics which were published in a series of reports entitled "Contributions to the Official Statistics of Sweden," and in 1910 the Government appointed a special Commission to investigate the possibility of securing a greater measure of uniformity in the compilation and publication of the official statistics. As a result of the recommendation of the Commission statistical compilation was centralised except for labour statistics, post office statistics and a few smaller types of statistics which were closely connected with adminis-

tration and the central statistical authority was given the duty of supervising the uniformity and regularity of planning within the entire field of official statistics.

The old tabulating commission was continued in an advisory capacity and is composed partly of chiefs of the most important statistical offices, and partly of university teachers and representatives of business.

#### *Denmark.*

In 1797 a tabulating office was set up by the Danish Government for the main purpose of taking a population census in 1801 and collecting statistics relating to finance. The personnel was so inadequate that after a struggling existence of twelve years it was abolished. Notwithstanding its comparative failure, the need for some sort of body to collect official statistics was felt after its abolition and in 1834 a Tabulating Commission consisting of government officials of high rank was appointed. Attending to statistics was, however, only a secondary duty with them and gradually a demand for an independent Statistical Bureau grew up. The Commission was replaced in 1850 by a "Statistical Bureau." This Bureau remains unchanged in principle up to the present time. The Committee of State in establishing the Bureau made the following points: (1) the direction of the Bureau should be entrusted to an individual rather than a Commission, (2) the Chief of the Bureau should be directly under the Minister without a departmental director as intermediary, (3) the Chief should sign documents pertaining to the Bureau, (4) matters pertaining to the Bureau should preferably be addressed to it in so far as the respective authorities did not feel especially impelled to address their communication to the Minister in charge as in complaints against the Bureau, etc.

There was a reorganisation and expansion of the Bureau in 1895 and a Statistical Year Book made its appearance in the following year. Later on in 1909 a series of monthly statistical bulletins was inaugurated. In 1913 the name "Statistical Bureau" was changed to "The Statistical Department." The statistics are collected in accordance with powers given under special laws of 1895 and 1913 relating to statistics. It is interesting to note in the law of 1895 the following: "The Bureau shall furthermore contribute to International Statistics." The subordinate work in the Statistical Department is mostly done by women with office experience, but the higher positions (ten assistants, five experts, three bureau chiefs and the department chief) are practically all filled by graduates in economic science.

#### *Great Britain.*

Up to the time of the establishment of Saorstát Eireann in 1922/3 the official statistics of Ireland from the beginning of the nineteenth century (Act of Union, 1801) were part of the scheme of statistics for the then United Kingdom. In some cases they were collected, compiled and published independently for Ireland such as population censuses, agricultural statistics, education statistics (from 1898), statistics pertaining to Local Government and (from 1900) statistics relating to Irish Trade with Great Britain.

There is no central controlling or consultative authority over official statistics in Great Britain. The field of official statistics is

practically co-extensive with that of public administration. The principal offices for collection and publication of statistics are Home Office, Board of Trade, Board of Agriculture, Board of Education and Local Government Board, Treasury, Inland Revenue and Customs and Excise Commissioners. The Statistical Department of the Board of Trade was created in 1832 "to collect, arrange and publish statements relating to the conditions, and bearing on the various interests of the British Empire" and is the nearest approach to a Central Statistical Office for the United Kingdom. It certainly marks the first official recognition of statistics in the country as a special field of enquiry. The responsibility for the publication of the Annual Statistical Abstract of the United Kingdom gives to the Board of Trade the appearance of being the nearest approach to a centralising authority for statistics.

It would occupy too much space to give an historical account of the establishment and development of the several departments in which statistical work is at present distributed in Great Britain. The following may be helpful towards understanding the rate of development. The Home Office dates from 1782 and deals with factory statistics, criminal statistics. The Board of Trade began collection of statistics in 1832 and publishing miscellaneous statistics, industrial production. A section dealing with labour statistics was transferred to the Ministry of Labour in 1918. The Local Government Board which was set up in 1871 took over the work of the Poor Law Commission which had been in existence since 1834, published in its Report statistics on a large number of subjects. The Board of Agriculture as its name implies concerns itself mainly with agricultural statistics. The Department of Education dates from 1856 and deals with statistics relating to education. The Inland Revenue Department established in 1849 and the Board of Customs and Excise possess important statistical records. The great Census of Population and Vital Statistics are under the control of the Registrar-General. Some of the above sets of statistics are compiled and published separately for Scotland by Local Departments, e.g., Department of Agriculture, Registrar-General for Scotland, etc.

From as far back as 1877 when the Government appointed a Special Committee on Departmental Statistics there has been a demand for some sort of centralising and co-ordination of British official statistics. Our sister Society, the Royal Statistical Society (London), brought pressure to bear on the Government of the day and influential Committees met with success only in so far as the arguments put forward were not directly refuted, but nothing has been done and even the suggestion for the appointment of a consultative body such as a statistical commission composed of the heads of the several Statistical Branches or Department in connection with which a Petition was presented to the British Government in 1919 and amongst the signatories to which was the Statistical and Social Inquiry Society of Ireland was not adopted.

Official statistics in the United Kingdom are granted high status and the officials in charge of the several statistical branches of the important Government Departments rank as Assistant Secretaries. The Registrar-General whose duties include the taking of the periodical Censuses of Population ranks even higher.



*Canada.*

To Canada belongs the credit of taking the first nominal population census of modern times, that is a record of each individual by name. The Census was taken in 1665 when the population of Canada was only 3,215 souls, exclusive of 1,000 troops. The first legislative attempt to bring under official control the statistics of Canada was in 1847 when a Board of Registration and Statistics was created under the Minister for Agriculture. This Board in fact compiled only a Census of Population which was found later on to have produced most untrustworthy results. There were also some miscellaneous statistics published by Department of Finance, Municipal Banking Insurance and Building Society statistics as well as Mortality Statistics.

In 1905 a Permanent Census and Statistics Office was established under the Department of Agriculture, and seven years later (1912) this office was transferred to the Department of Trade and Commerce. This office compiled principally statistics of Population, Census of Manufactures, Criminal Statistics, Imports and Exports, monthly and annual Reports of Agriculture, Trade and Commerce, area and yield of principal field crops, numbers of farm live stock.

In particular a degree of uniformity was introduced into the methods of compilation of the agricultural statistics and vital statistics by the Provinces. The compilation of vital statistics was in the jurisdiction of each of the Provinces and was previously most imperfect for combination with statistics from the other Provinces or for purposes of comparison.

In 1915 the title of the head of the Census and Statistics Office was changed to that of "Dominion Statistician and Controller of the Census" and this officer was charged with the reorganisation of the official statistics of Canada. As a result, the Statistics Act, 1918, was passed by the Legislature and a Dominion Bureau of Statistics with full general powers of centralisation and control of statistics was set up. The office is divided into 12 separate divisions each under the direction of an expert chief with the exception of the Administrative Division, which is under the immediate control of the Dominion Statistician himself. The divisions are (1) The Census and Statistics Office (covering the Census, and also Agriculture, General Manufactures and Criminal Statistics), (2) Fisheries Statistics, (3) Mining Statistics, (4) Forestry Statistics, (5) Dairying and Fruit Statistics, (6) Water and Electric Power Statistics, (7) Railway and Canal Statistics, (8) External Trade Statistics, (9) Grain Trade Statistics, (10) Live Stock Statistics, (11) Prices Statistics, (12) Employment Statistics. There are four Branches dealing with Public Finance, Internal Trade, Vital Statistics and Education as well as a division which includes the technical staff who do most of the analysing work and correlate the different sets of statistics.

For some branches of statistics, principally vital statistics and education statistics, much of the preliminary work is done by the Provincial Governments, similarly the collection and primary compilation of Foreign Trade Statistics is carried out by the Customs Department, leaving their analysis, interpretation and publication to the Bureau of Statistics. The most important publication of the Bureau is the Canada Year Book—a statistical abstract (1,075 pages)

with a considerable amount of descriptive and interpretative matter. It also publishes a monthly review of current statistics.

#### *Australia.*

The statistical organisation of Australia owes its origin to the manuscript returns which used to be sent to the Colonial Office in London recording in figures incidents arising out of the administration of the Government Departments. Each State of Australia did its work independently and these returns were succeeded at different dates between 1850 and 1860 for each State by publications called "Statistical Reports." Gradually a demand for more and better statistics arose and the most important system set up was that for the Census of Population undertaken by the State Registrars for Births, Deaths and Marriages, who became known as the State Statistician and Registrar-General. Australia was fortunate in the fact that some very eminent men who later earned a world-wide reputation were appointed to fill these positions from time to time and who developed the statistics under their charge to a high degree of perfection.

Several conferences of these "State" officials were held, sometimes at very long intervals, in order to enable them to exchange views and to arrange for intercomparability of the different sets of statistics compiled by the different States. The conferences resulted in great improvement in the uniformity of statistical data.

Shortly after the Commonwealth of Australia was constituted, a Federal Bureau of Census and Statistics was created by the Census and Statistics Act of 1905. Certain work previously done by the several State Bureaus was taken over by the Federal Bureau, but a considerable amount was still left with the latter. The Federal Office was given powers to compel uniformity in compilation and presentation of statistics amongst the States. Several conferences have been held with a view to combining the Federal and State Bureaus but so far without success.

The *Commonwealth Statistician* directly collects the following statistics:—Population, migration, shipping, banking, insurance, prices, wages, trade disputes, unemployment. *Commonwealth Departments* (non-statistical) collect and compile statistics of external trade, post, telegraphs and telephones, customs and excise, finance, railways, and meteorology. *State Statisticians* collect and compile statistics relating to agriculture, manufactures, local government, justice. *State Departments* (non-statistical) collect and compile statistics relating to minerals, land settlement, forestry, fisheries, education, wages, trade unions, state electors. The official Year Book of the Commonwealth of Australia—a volume of approximately 1,100 pages—is compiled and published by the Federal Statistical Office. To say that it contains all information, statistical and otherwise, about Australia is a fair description of its contents. The several States publish Statistical Reports including Year Books quite independently of the Federal Statistical Office.

#### *New Zealand.*

As in the case of Australia the first recorded official statistics of New Zealand were those contained in the Annual Manuscript Reports which from 1841 to 1852 were forwarded to the Colonial Office in London and contained statistics illustrating the work of

the various Government Departments in New Zealand. These were very poor statistics and in time the need for a better system was felt. In 1853 the Registrar-General was entrusted with the task of compiling monthly statistics relating to the whole colony of New Zealand as it then was.

The passing of various Acts relating to Census of Population, the Agricultural and Pastoral Statistics Act (1895) culminated in the Statistics Act of 1908 as part of the general consolidation of the Statutes. The latter Act was replaced two years later by the Census and Statistics Act 1910 and this Act, after amendment in 1915, was superseded by the Census and Statistics Act 1926, which contains the present law on the subject of statistical enquiry.

The Census and Statistics Act 1910, provided for the appointment of a Government Statistician who has since been the authority charged with the administration of the Act. Up to 1915 the office was part of the Office of the Registrar-General; in that year it was made a separate Branch of the Department of Internal Affairs and in 1931 the Census and Statistics Office was transferred from the control of the Minister of Internal Affairs to the Minister of Industries and Commerce.

The following are the principal statistics compiled in New Zealand roughly divided into (1), those obtained from private sources and, (2), those obtained from or through other Government Departments in the form of individual cards, etc. In category (1) are included statistics relating to Population, Agriculture, Factory Production, Transport, Insurance, External Trade, Banking, Wholesale and Retail Prices, Wages, Employment and Unemployment and in category (2), Vital Statistics, Judicial Statistics, Statistics relating to Migration, Shipping, Taxation, Industrial Disputes, Accidents, Joint Stock Companies, etc.

The New Zealand Official Year Book first published in 1892 as the New Zealand Official Handbook is an excellent publication. It contains 838 pages of statistical descriptive and analytical matter covering every aspect of Finance, Commerce and Social Conditions of the Dominion.

#### *Union of South Africa.*

Prior to the constitution of the Union in 1909, the only official statistics published were those procured by various Government Departments as an incident of the ordinary work of their administration. There had been in existence since 1905 a Customs Statistical Bureau which collected trade and shipping statistics for all the States in British South Africa. There were at the time of the Union no other organised means of obtaining statistics. The Government accordingly passed a Census Act in 1910 to enable a Census of Population to be taken in the following year and at such other times as the Government should decide. They also passed in 1914 a comprehensive Statistics Act which provided for the establishment of a Central Statistical Office for the Union and the appointment of a Director of Census and Statistics. Thus, centralisation of statistics was brought about and the office now collects statistics dealing with a wide diversity of subjects—population, vital statistics, migration, agricultural production, industrial production, indices of industrial activity, fishery statistics, social statistics (wages, prices, education, employment), judicial statistics, statistics relating to local govern-

ment, motor vehicles, trade, banking, finance and insurance, mining, railways and a variety of subjects such as savings banks, libraries, building societies, etc.

The office is divided into the following 7 sections. (1) Administration; (2) Population; (3) Production, Industrial and Agricultural; (4) Social; (5) Mechanical Tabulation; (6) Compilation and Computing; (7) Publication. For certain purposes such as Census of Agriculture and Industries use is made of the Union Police Force for the collection of the statistical information. For the Census of Population work a special field organisation has to be improvised as the special circumstances surrounding the population Census in South Africa render the utilisation of the Police Force impossible.

The office publish a monthly Bulletin of Statistics and are responsible for the compilation and publication of the Official Year Book of the Union of South Africa. The volume for 1930-31 consisted of 1,020 pages of tabular, descriptive and analytical matter with a complement of maps and statistical charts and diagrams.

A Statistical Council was provided for by the Statistics Act of 1914 to consist of not less than four and not more than eight members to advise the Minister in regard to matters connected with the Act. The Council has been functioning since the establishment of the Central Statistical Office.

#### *France.*

There is in France to-day only a semblance of real centralisation of statistics as it is generally understood. Despite her long tradition in statistics back to the time of Colbert in 1663, the setting up in 1796 of a Statistical Bureau, a statistical enquiry in 1801 into agriculture, industry, wages and prices (there was a Census of Population in the preceding year) France has a statistical organisation centralised only at the report or study stage.

Most of the Administrative Departments of Government compile without any outside control, the statistics which arise as by-products of their work. The "Statistique General de la France" exercises no supervision over methods and has no powers to require co-ordination of results in these types of administrative statistics. The Statistique General has charge of the Census of Population and its sub-enquiries into housing, occupations of the people, conjugal and industrial status, etc., the calculation of a number of series of index numbers such as those relating to wholesale and retail prices, trade, bankruptcies, transport, unemployment, etc. After the Census of Population its most important work is the compilation and publication of the Statistical Year Book of France which has been issued annually since 1878, the publication of the quarterly Statistical Bulletin since 1911 and a monthly Bulletin since 1923.

Apart from a compiling staff of 94 persons (mostly females) there are on the staff of the office 11 statisticians of a University standard of education (mathematics, calculation of probabilities, theory of statistics, political economy, economic geography, compulsory knowledge of English and German) whose duty it is to study the subjects of enquiry, to scrutinise and re-verify the results of the compiling staff, analyse the figures and prepare detailed reports for publication by the office which usually contain comparative figures for other countries.

There is a fairly full equipment of statistical machinery (compto-

meters, calculating machines, etc.) for the use of the office and for other Departments when they wish to avail themselves of the machines, which it is stated is unfortunately seldom. A feature of the statistics office is its splendid Statistical Library (of over 45,000 volumes) which is open for the use of, and availed by, the general public.

The *Statistique General* which up to 1931 was under the Department of the President of the Council is now under the Department of National Economy.

### *Italy.*

The official statistical organisation of Italy to-day occupies a very prominent and influential position in the general scheme of Government Departments of that country. It is directly under the Prime Minister. The Central Institute of Statistics of the Kingdom of Italy was established by law in 1926 and given very wide powers to ensure the fullest measure of co-ordination and centralisation in all matters relating to statistics. From 1923, the first year of the Fascist regime, to 1926, official statistics were under the charge of the Minister for National Economy, and for many years prior to 1923 they formed part of the work of the Ministry of National Economy and Labour.

Italy was one of the first European countries to organise a Statistical Bureau. The Bureau, set up in 1807, was short lived, and we find some few years later, a number of census bureaus established in the several small States into which Italy was divided following the fall of Napoleon. Soon after the establishment in 1861 of the Kingdom of Italy, a Central Bureau of Statistics was created which remained in existence up to 1926. It gathered the partly compiled material from the other offices and worked it up uniformly. In 1926 the Government created a "Central Institute of Statistics" in which were centralised only the statistical reports relating to such general subjects as population censuses and industrial censuses. The responsibility for the collection and publication of other statistics was left to the several Departments, but they were required to follow co-ordination plans laid down by the Institute. The Institute was given the right of initiative and could require other Departments to collect statistics. The Institute is divided into four main sections, (1) general administrative, cultural and incidental affairs; (2) demographic, sanitary and public welfare statistics; (3) censuses and commercial, industrial and general investigations; (4) bureau of research (special studies, mathematical section, cartography, translations, etc.).

The law of 1926 provided for the appointment of a Superior Statistical Council of 12 persons to be elected every three years, and consisting of (a) five members nominated by Royal Decree to be selected from the universities, chambers of commerce and persons interested in statistics and economics; (b) three members selected from the staff of the Statistics Department, and (c) three from the principal "syndicate" organisations. The President of the Institute is *de facto* a member of the Council. The functions of the Council were principally to organise the Central Institute of Statistics, to draw up a programme of statistics to be compiled, and to suggest to the Government new branches of statistical enquiry. The Director-General of the Institute is appointed by Royal Decree on the nomina-

tion of the Head of the Government. After three years' experience of the working of the Central Institute under its new conditions, an amending law was passed in 1929 tightening up the centralisation and arranging for the gradual absorption by the Central Institute of the number of statistical services then existing in other branches of the administration, so that the full collection and compilation, as well as the publication of official statistics in Italy, will eventually be under the control of the Central Institute of Statistics.

#### *Soviet Russia.*

Pre-revolutionary Russia while having Statistical Branches in the several Ministries of State had no semblance of a State Statistical Office with control of organisation and co-ordination of statistics collected by the various Ministries. Attached to the Ministry for the Interior there was in existence a Central Statistical Committee but it was a moribund body; it had no independence and could not accordingly organise a system of National Statistics, it had no relations whatever with the numerous statistical organisations of the districts and towns throughout Russia. The Revolution in 1917 put an end to the Ministry of the Interior and the Statistical Committee ceased to exist.

In 1916 during the European War, on account of the urgency of Food Control in Russia it was found necessary to obtain full information regarding agricultural production in the country and the work of collecting the statistics was entrusted to the Ministry of Food notwithstanding that it was laid down as one of the functions of the Central Statistical Committee to collect statistics relating to crops and live stock and to calculate estimates of agricultural production. After the collection of these particulars it was seen how necessary it was to have an independent statistical office and accordingly a Central Statistical Office was set up working side by side with the Central Statistical Council and drawing its material principally from the local district and municipal statistical offices referred to above.

Eventually the Supreme Council of National Economy of the Soviet Government created by Decree in 1918 a Central Statistical Administration for Soviet Russia as an independent, central and directing Body, having equal rank with the several Ministries of the Government. The Head of the Statistical Administration is appointed by the highest authority of the country, viz., "Le Conseil Supérieur du Peuple" and is assisted directly by a Committee composed of statisticians and other persons noted for their work in connection with statistics. The Central Administration is responsible for the organisation of statistics and for the co-ordination of statistics throughout Russia but for those big branches of national statistics which were not statistics arising directly from Administration decentralisation at the primary stages of collection and compilation was made a fundamental principle.

The statistical organisation in the provincial districts is closely connected with the local administration and carries out the preliminary stages of the work in accordance with plans laid down by the Central Statistical Administration. Regular conferences and congresses are held by the latter at which representatives from these local district and municipal statistical offices take part. Sometimes the conference had to do only with one particular subject, while at

other times the range of subjects for consideration is very wide. These conferences would seem to be in the nature of miniature International Congresses. The particular care of the Central Administration is the compilation and publication of the Statistical Year Book.

#### *Greece.*

The Organisation of Official Statistics in Greece has, since the year 1925, been fully centralised, and its plan is almost the ideal to be aimed for by all countries. This achievement, however, was not brought about without much antecedent difficulty extending back over a period of almost a century. Up to 1913 statistics were collected and published independently by the several Ministries. In 1913 a statistical "Direction" was constituted by law under the Ministry of National Economy, consisting of a Director, two Secretaries and six Writers, with power to appoint up to 30 extra Writers if necessary. Thus the principle of centralisation was admitted and the "Direction" was given control over the major systems of national statistics, e.g., vital statistics, statistics relating to agriculture, industry, occupations, external and internal trade and transport. A Statistical Council was appointed whose opinion and advice had to be obtained before plans for the collection and compilation of any new system of statistics could be submitted to the Minister in charge.

In 1925, while still under the Ministry of National Economy, the Statistical "Direction" was by law transformed with very wide powers into the Central Statistical Department of Greece. Its duties included the systematic and exact collection, control, scientific analysis, and publication of all statistical information concerning the State, the movements of the population, agriculture, industries, occupations and conditions of work in the several industries, internal and external trade, transport, finance, justice, education, public health and social insurance, defence, and to the editing of a Statistical Year Book. For these purposes the office is divided into six sections, and there are besides four independent sub-sections for staff, correction of proofs, library and translation, classification of printed matter. There are 30 "outside" staff attached for statistical purposes to other Departments, such as Customs, Judicial Courts, etc., and a staff of 35 in the National Government printing works, whose full time is occupied in connection with work on official statistical publications only. The whole cost of the Statistics Service is more than covered by a statistical tax levied on Imports and Exports.

A Statistical Year Book for Greece was published for the first time in 1930, and the Statistics Office also publish a Monthly Statistical Bulletin. In the Year Book the contents pages are reproduced in the French language as well as Greek, and likewise the heading and description in the various columns in the tabular parts of the volume.

#### *Netherlands.*

The first effort of the Netherlands Government to set up a Statistical organisation was in 1795, when arrangements were made for the taking of a Census of Population. In 1825 statistics were collected concerning imports and exports and in the following year

a Statistical Bureau was established in the Department of Home Affairs. A few years later political events put an end to its activities and not until 1848 was any further step taken towards organising official statistics in the country.

Again in the Department of Home Affairs a Statistical Bureau was set up but centralisation of statistics did not take place and their compilation was continued in the other Departments of the administration. An unofficial body called the "Union for Statistics" formed by a small number of statisticians, made its appearance in 1856. It was assisted by the Government and repeatedly consulted on matters of a statistical nature, and many years later developed into the present International Institute of Statistics. The Government hesitated to inaugurate a Central Bureau of Statistics, despite great pressure but went so far as to create a Central Commission for Statistics consisting of representatives of science, of departments having to do with statistics, and of the different great groups of social life to advise on the collection, compilation and publication of statistics. The Committee took over control of the Official Year Book of Statistics. In 1898 this Commission was reorganised and a Central Bureau of Statistics was created alongside of it. The independence of the Bureau in relation to the Government was guaranteed by the stipulation that not the Government but exclusively the Central Commission could give orders to the Bureau.

The Central Bureau undertakes work in connection with population statistics, election statistics, statistics of poor law relief, judicial statistics, savings banks, government finances, labour statistics, statistics relating to agriculture, commerce and shipping which for a time after the creation of the Central Bureau were compiled in the respective departments to which they belonged, and were subsequently transferred to the Central office.

#### *United States of America.*

There is no attempt at centralisation of official statistics at present in the United States. This country is probably the biggest producer of statistics, official and other, in the world. Practically every Bureau in Washington collects or disseminates statistics of one kind or another. The following Departments have each a separate statistical organisation:—Department of Commerce, Department of Labour, Department of the Interior, Department of Agriculture, Department of the Treasury, Department of Justice, Post Office, Department of War, Department of the Navy and some other independent establishments.

The Department of Commerce contains the Bureau of the Census which is by far the largest statistical unit of the Federal Government. The Bureau was established in 1902 under the Department of the Interior but in the following year it was transferred to the Department of Commerce. Its work covers the taking of Censuses of Population, of Manufactures and of Agricultural and vital statistics and of statistics of States and Cities. It also includes the Bureau of Foreign and Domestic Commerce which was established in 1866 and collects statistics of trade, fisheries and navigation.

The Department of Labour was established in 1885 as a Bureau of the Department of the Interior, and was made an independent establishment in 1888, and as its name implies, deals with labour



statistics concerning wages, cost of living, and accidents, as well as employment. It also has charge of immigration statistics.

The Department of the Interior has to do with statistics of mines and minerals, reclamation of land, education, pensions and Indian affairs.

In the Department of Agriculture.—Agricultural statistics in the United States were collected as far back as 1839 but a separate Department of Agriculture was not set up until the year 1862. The Department collects statistics relating to live stock, production of crops, markets, farm management, forestry and weather statistics.

The Department of the Treasury dates as far back as 1739 and is concerned with the Statistics of national finances, the public debt of the United States, currency; mint and banking, as well as internal revenue, income tax, etc.

The Department of Justice, established by the Act of Congress, 1870, collects and disseminates no statistics other than those necessary to a description of the administrative activities which are conducted under its jurisdiction or its field of work, such as Court statistics and Criminal statistics.

The statistics compiled by the Post Office Department relate to the transportation and distribution of mail and the administration of the postal service system. Other statistics date back to 1894, except as regards savings bank business, which goes back only to 1910.

The Department of War and of the Navy each publish statistics mostly of personnel of the different branches of the Defence Force.

The principal other establishments which compile statistics are the Federal Reserve Board, the Inter-State Commerce Commission, the Civil Service Commission, the Panama Canal and Employees' Compensation Commission.

The above list of independent statistical bureaux give some idea of the difficulty which at times is felt in obtaining a complete statistical view of many important subjects in the United States. Towards the end of 1922 the United States Bureau of Efficiency made an investigation into the statistical work of the whole Federal Government, and with a view to the standardisation of statistics and the improvement of output, as well as the elimination of the large amount of duplication which existed at that time, reported in favour of the centralisation of the collection, tabulation and dissemination of all non-administrative statistics within the Bureau of the Census of the Department of Commerce. The large staff of trained statistical clerks concentrated in one bureau would make for considerable economy as well as better statistics. It would appear that the Federal Government have not yet taken any steps to implement the Report of the Bureau of Efficiency.