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DOMINION BUREAU OF STATISTICS

*Annual
Report*

For the Fiscal Year ended March 31, 1963

CATALOGUE No.

11-201



ANNUAL REPORT
OF THE
DOMINION BUREAU OF STATISTICS

FOR THE FISCAL YEAR
ENDED MARCH 31, 1963

June, 1963
1101-502

Price 40 cents

*To His Excellency Major-General Georges P. Vanier, D.S.O., M.C., C.D.,
Governor General and Commander-in-Chief of Canada.*

The undersigned has the honour to forward to Your Excellency the report of the Dominion Statistician on the activities of the Dominion Bureau of Statistics for the fiscal year ended March 31, 1963.

Respectfully submitted,

A handwritten signature in dark ink, reading "Mitchell Sharp". The signature is written in a cursive, flowing style. The first name "Mitchell" is written with a large, prominent 'M' and the last name "Sharp" follows in a similar cursive script.

Minister of Trade and Commerce

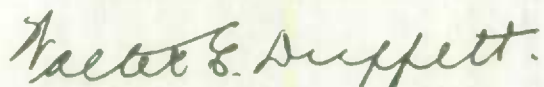
Ottawa, Canada
June, 1963.

THE HONOURABLE MITCHELL SHARP,
MINISTER OF TRADE AND COMMERCE,
OTTAWA, CANADA.

Sir:

I have the honour to submit the Annual Report of the Dominion Bureau of Statistics covering the operations and services rendered during the fiscal year ended March 31, 1963.

Your obedient servant,

A handwritten signature in dark ink, reading "Malcolm G. Duffett". The signature is written in a cursive style with a large, stylized initial 'M'.

Dominion Statistician

Ottawa, Canada
June, 1963.

GENERAL ACTIVITIES

Under this heading are discussed a number of the highlights of the year's activities in the Dominion Bureau of Statistics as well as certain operations closely associated with the office of the Dominion Statistician. Subsequent sections deal with the work of subject-matter and service divisions.

Among developments affecting the entire Bureau of Statistics during the year, two were of major importance. The first was the suspension of recruitment from June 28, 1962 to January 2, 1963. The second was the publication, in December 1962, of Volume 3 of the Report of the Royal Commission on Government Organization, which contained important observations and recommendations regarding the development of the statistical services of the Federal Government.

The suspension of recruitment, in conformity with a government-wide economy program, affected the Dominion Bureau of Statistics for approximately six months and gave rise to a considerable number of vacancies, which were in the course of being filled at the end of the fiscal year.

The Report of the Royal Commission on Government Organization drew attention to the great and growing importance of statistics in decision-making in government and business, and made recommendations designed to clarify the status of the Dominion Statistician, to strengthen the staff resources of the Bureau, to facilitate the co-ordinating function of the Dominion Statistician and to define the respective roles of DBS and a number of government departments. As the fiscal year drew to a close, the Government was considering these recommendations.

The 1961 Census of Population, Housing and Agriculture was being tabulated during the year, although first results had been released in the previous fiscal year. Much of this work was carried out by the new computer which has made it possible to prepare a greater wealth of detail than in previous censuses; although, as is not unusual with innovations of this kind, occasional delays were encountered. Tabulation will be complete by the end of 1963 except for a sample survey of migration and income. A number of monograph studies are in the course of preparation and others are anticipated.

Co-operative arrangements were further pursued with government departments at all levels and with international agencies. Expansion continues in the statistical activities of the provinces, and efforts are being made to co-ordinate federal and provincial programs in order to improve the quality of the statistics and minimize respondent burdens.

The Government of Canada is acting as host to the 34th Session of the International Statistical Institute, which is to meet in Ottawa during the latter part of August 1963. Concurrently, there will be meetings of the Institute of Mathematical Statistics and the International Union for the Scientific Study of Population. Preparation for this large conference occupied a good deal of the time of the Dominion Statistician and his senior associates.

The Corporations and Labour Unions Returns Act was passed in April 1962 and came into force on January 1, 1963. The administration of this Act is quite separate from the operations of the Dominion Bureau of Statistics but is part of the duties of the Dominion Statistician. The purpose of the legislation is to provide information about the extent of foreign participation in Canadian corporations and unions. Financial and other reports are required from some 35,000-40,000 corporations and about 200 trade unions.

The Dominion Statistician wishes to acknowledge the continued contribution of the Bureau's competent and capable staff both in assisting the Dominion Statistician in preparing to carry out the above legislation and in the course of their regular duties throughout the many and varied activities carried out by the Bureau; their loyalty and devotion to duty have been of vital importance in the accomplishments of the past year.

Central Research and Development Staff

During the year members of the staff have been engaged in a variety of projects and participated in numerous divisional and interdivisional activities. A summary of the main developments follows:

Considerable time has been devoted to preparing the groundwork for a series of census monographs based on the 1961 Census and related material. Plans on the following monographs are far advanced: The Canadian Labour Force; Income of the Canadian Population; Internal Migration; Housing in Canada; Trends in Merchandising in Canada. Other topics are being considered.

Work has continued on the various statistical classifications and their implementation. A French edition of the Standard Industrial Classification has been prepared and is in the process of being printed. An important step in the uniform implementation of the SIC is the development of the Standard Lists of Establishments. Additional staff has been secured to ensure the completion and maintenance of this list. By linking the establishments of multi-establishment firms through a system of identification numbers, the list will provide also a bridge between survey data obtained on the basis of establishments and statistics covering the firms as a whole.

Implementation of the Standard Commodity Classification of Imports has been postponed until January 1964 owing to staff shortages and to minimize delays in publication of current statistics. Timeliness of the import statistics became especially important when surcharges and special regulations were introduced in June 24, 1962 to conserve foreign exchange. Preparations for the change-over in import coding are proceeding. Amendments to the Standard Commodity Classification during the period 1959-62 have been assembled and reprinted pages for Volume I (The Classifications) are now available. Volume III (Alphabetical Index) is now in manuscript and will be published soon. A commodity classification for railway freight which will provide information comparable with that from the Standard Commodity Classification is in preparation. Its completion awaits further action on the part of the railways and the Board of Transport Commissioners.

Studies preliminary to the construction of the 1961 Input-Output table are proceeding and a general plan for future work has been drawn up. Procedures have been set up for one of the principal studies in preparation of the table designed to summarize commodity flows from their source of production to their end use. This study covers the whole field of commodity statistics, including production, imports, exports, and materials used in production. In order to set up the work sheets for the study, it was necessary to examine the feasibility of using the Standard Commodity Classification in order to summarize in tabular form statistics from various sources on a comparable basis. Certain proposals, designed to improve the comparability of commodity statistics, resulted from these activities.

Work on the Fixed Capital Stocks Project, which had been interrupted as a result of staff shortages, was resumed during the fiscal year. Preliminary estimates of the gross and net stocks of fixed reproducible capital, net fixed capital formation and capital consumption allowances by industry, in current and constant (1949 and 1957) dollars, have been prepared for 1926 to 1959, for eight out of eleven industrial divisions of the 1948 Standard Industrial Classification. Some of the preliminary estimates have been circulated to various Government Departments for analysis and comment, but a decision regarding the suitability of this material for publication has not been made yet. Work is now going ahead on the remaining industrial divisions.

Developmental work continued in the field of financial statistics in collaboration with several divisions of the Dominion Bureau of Statistics. The survey of quarterly corporation balance sheets, carried out in the Business Finance Division in 1961, continued and results for trust companies, mortgage loan companies, instalment finance companies and personal loan companies will be released shortly. Preparations were made for the Public Finance and Transportation Division to undertake surveys of quarterly government balance sheets as soon as the required staff is secured. The Central Research and Development Staff acted as the focal point for requests for information from the Royal Commission on Banking and Finance and considerable assistance was given to this Commission.

A survey of consumer finances was taken in March-April 1962 in conjunction with the monthly labour force surveys. Income data were obtained from approximately 10,500 family units along with some new data on work experience during 1961. A report will be published in the latter part of 1963. Work continued on the planning of the analysis of the income sample from the 1961 Census of Canada. Data for the sample may become available early in 1964. Quality checks were also carried out. Tabulation of the farm family income statistics for the 1959 Survey of Farm Income and Expenditures was started and preliminary results have become available. It is planned to release some statistics later in 1963. Special analysis of consumer financial data were carried out for the Royal Commissions on Health Services and on Banking and Finance, and other assistance was provided Commission staffs.

In the field of energy statistics, the Interdepartmental Advisory Committee on Energy Statistics concentrated on problems in refined petroleum products and electric power statistics. The re-organized and enlarged Federal-Provincial Committee on Oil and Gas Statistics was instrumental, among other

things, in instituting joint collection and tabulation procedures for oil and gas pipelines. Meetings were held with representatives of petroleum refiners and distributors, oil pipeline companies and electric utilities on a wide range of problems. One of these, the development of a supply-disposition table on crude oil and equivalent by source, necessitated the introduction of changes in concept and reporting procedure by provincial governments, oil pipeline companies and petroleum refineries.

While a very large part of the resources of the Dominion Bureau of Statistics is understandably oriented primarily towards the collection and compilation of national economic aggregates, the demand for data applicable specifically to provinces, or to regions within provinces, has been increasing substantially. This demand frequently arises from the needs of provincial and municipal governments, and of commerce and industry, for more adequate factual knowledge and has been expressed in several forms. Perhaps most significant of these were the resolutions passed in the summer of 1962 by the Dominion-Provincial Conference on Economic Statistics. The Conference recommended that DBS set up a staff with specific responsibility for studying provincial statistical needs and developing data to supply such needs. In line with this recommendation, and similar requests from other sources, it is hoped that the Bureau will be in a position to expand its operations in the area of provincially-oriented statistics.

A particular area of concern in the past year has been the problem of determining the most appropriate geographic framework within which to estimate or publish economic statistics. The Bureau has become aware that this is a problem of concern to many provincial agencies as well, and discussions have been proceeding with provincial authorities. In this area, as in many others, the Bureau's chief concern is to ensure that geographic classification systems in use in any one part of the country should be capable of being integrated in some way into a national classification system.

Sampling Research and Consultation Staff

The Sampling Research and Consultation Staff has been engaged in a number of studies and activities. The most important projects are summarized below.

In preparation for the redesign of the Labour Force Survey a mathematical model has been devised to facilitate the study of the sampling variability of the estimates and the cost of the survey under alternative designs. It is expected that this study will be completed in the first half of the next fiscal year. The complete design of the new sample (including stratification, maps, sampling ratios, instructions) will be prepared jointly with the Special Surveys Division.

Since September 1962, estimates of sampling variability of selected Labour Force Survey estimates have been distributed monthly to interested persons. These estimates will be issued regularly in the future as well.

Three studies in connection with the 1961 Census of Canada are near completion. The first of these is to provide estimates of the completeness of the population counts for Canada. Preliminary estimates of underenumeration

have been prepared and the final estimates will be released shortly. The second study, which was confined to a single small region, aims to analyse the effect of errors in response on the final census estimates. The final results of this study will be available in the next fiscal year. A paper on the methodology of this project will be read at the 34th Session of the International Statistical Institute. The third study concerns the Census of Agriculture. Estimates of underenumeration of acreages and farms have been prepared. A scientific paper on a general sampling problem has been published in the *Journal of the American Statistical Association*.

A study has been undertaken to analyse the methods of sampling, processing and quality control as applied in the Motor Transport Survey. It is expected a change in the procedures will result from this study.

Consulting services were rendered to several divisions of DBS in addition to the ones mentioned above: Education, Health and Welfare, Industry and Merchandising, Labour, National Accounts and Prices Divisions; also to various government departments, such as the Departments of Agriculture, Citizenship and Immigration, External Affairs, Forestry, National Health and Welfare, Labour and Public Works; to the Royal Commissions on Banking and Finance and on Health Services, the Air Transport Board and the Royal Canadian Mounted Police.

AGRICULTURE DIVISION

The Agriculture Division is responsible for the development and co-ordination of an integrated program of agricultural statistics, including the collection, compilation and publication of current statistical data relating to all phases of the agricultural industry as well as the answering of numerous inquiries from users of statistics. Although much of the data related to the program is collected by a number of other divisions of the Dominion Bureau of Statistics, by provincial governments and the Canada Department of Agriculture, the Agriculture Division assembles such data for statistical analyses and publication.

The specific role of the Division in the collection of statistics is to conduct numerous farm sample surveys (annual, monthly or seasonal) from which are derived estimates of the acreage and production of crops, number and production of the various kinds of livestock and poultry, as well as farm prices and wage rates. It also conducts full-coverage surveys at the manufacturing or wholesale level for production and stocks of a number of agricultural products and co-operates directly with the provinces and other agencies in the conduct of certain farm and industry surveys.

A Dominion Government Interdepartmental Committee, with commodity sub-committees, and an annual Dominion-Provincial Conference on Agricultural Statistics, facilitate the co-ordination of the statistical program. The 1962-63 fiscal year's Dominion-Provincial Conference was chiefly concerned with reviewing the program of current estimates in relation to the 1961 Census of

Agriculture, specific problems raised by provincial representatives and the participation of the Economics Division of the Department of Agriculture in the over-all statistical program. Provincial delegates urged that a Canada-wide Census of Agriculture be taken in 1966.

During the year under review, data on the acreages of grain crops in 1961 became available from the Census Division. As decennial Census figures are used as benchmarks for the annual series, necessary revisions were undertaken in the annual estimates. The intercensal revisions for the 1956-61 period were completed for all crops in all provinces and revised figures on wheat, oats, barley, rye and flax for the Prairie Provinces were published.

A new "double-ratio" method of expanding acreage surveys of the Prairie Provinces, introduced by the Crops Section in June 1962, is expected to have some significant advantages over the "Current-Historic" change-ratio method used during the 1956-61 period. As usual, the extensive publication service of this Section was maintained. Basic source material, derived from the results of mail questionnaire surveys of farm respondents and supplemented by material supplied by the Board of Grain Commissioners, the Canadian Wheat Board, Marketing Boards, private industry and other government departments, was integrated to provide a wide range of weekly, monthly, seasonal and annual statistics relative to production, marketing, processing and consumption of field and special crops. Analyses of the wheat and coarse grains situations were carried in the monthly *Wheat Review* and the *Coarse Grains Quarterly*. Extensive files of data pertaining to the production and disposition of cereal and oilseed crops are maintained and hence information and special tabulations are provided, so far as is possible, in addition to the data contained in the regularly scheduled releases.

In the field of experimental estimating techniques, the Division continued to co-operate with grower and processor associations and provincial authorities in their studies of the application of objective estimating procedures to tender tree fruits in the Niagara District. A mail questionnaire survey of a large number of growers was conducted which resulted in the provision, for the first time, of data on yields per tree as well as tree plantings and removals. DBS continued to co-operate with the Quebec Bureau of Statistics in the development of a program of objective crop estimates for the Quebec apple crop. With the publication of the 1961 Census figures on vegetable acreages, discussions were held with the various provincial officials and, where appropriate, revisions were made for 1960 and 1961 to bring the annual acreage estimates into line with the Census benchmarks.

Considerable study was given to the methods by which estimates of the value of apple production are prepared in the different provinces, with emphasis on comparability. In response to a request from the Canadian Seed Growers' Association and other interested bodies that the necessary data be obtained for the preparation of annual estimates of the consumption of forage crop seeds in Canada, initial study was given to this problem. The Special Crops Unit continued close liaison with the Canadian Horticultural Council and assisted in the preparation of the annual report of the Statistics Committee of that group.

During the year, the Livestock and Animal Products Section issued monthly reports on the output of dairy factory products, fluid milk sales, milk production and its farm value, egg production, and on stocks of the principal food commodities held in storage; quarterly reports on numbers of pigs on farms and forecasts of farrowing intentions; semi-annual estimates of other livestock and poultry on farms; and annual estimates of meat and wool production and domestic disappearance. The Section also issued comprehensive annual reports on dairy statistics, livestock statistics, poultry and egg statistics, fur farms and total fur production.

This Section, along with others in the Division, co-operated with the Canada Department of Agriculture in reviewing and up-dating the manual, *Weights and Conversion Factors for Canadian Agricultural Products*. Questionnaires were revised for several surveys to adapt them more fully to company bookkeeping practices or to ensure more complete reporting. Preparations were also made to start a new series of statistics on plant sales of skim milk powder by specific price ranges, which was requested by industry and endorsed by producer and government agencies. It is intended to publish these statistics in the monthly *Dairy Review* starting May 1963. Problems associated with proposed new surveys of cattle on feed were under investigation.

The Farm Finance Section prepared estimates of cash and net farm income, volume and value of farm production, farm prices of agricultural products, value of farm capital, value per acre of farm land and rates of wages paid to male hired farm help. Its functions include the distribution and compilation associated with the questionnaires used in connection with the semi-annual surveys of crop acreages and livestock numbers.

During the year under review, efforts were continued to obtain price information which could be used as a check against, or as an alternative to, the prices reported each month by farmer correspondents. As a result, arrangements were made to receive each week from the Ontario Hog Producers' Marketing Board, a report of the dressed prices per hundredweight paid by meat packers for hogs at the various assembly yards operated by the Board. Additional information provided by the Board concerning its marketing charges and an estimated cost for moving hogs by public transportation from farm to assembly yards has permitted a fairly accurate calculation of the "farm gate" prices for Ontario hogs. Early in 1962, arrangements were also made to obtain data for hog prices in the other provinces. This consisted of dressed prices per hundredweight, f.o.b. packing plant, as collected by the Department of Agriculture in connection with the federal Agricultural Stabilization program, and necessitated the conducting of a survey of costs of services provided by stockyards and the collection of information on costs of public transportation.

A pilot survey of cattle and calf prices for Alberta was continued on a monthly basis throughout the year; known producers were asked to report prices received at the farm, classified according to grade, and the marketing channel through which their livestock were sold. Under the present method farmer correspondents are requested to report the average price prevailing in their neighbourhood which reflects all grades of the produce marketed; often the prices reported are those for products which the correspondents

themselves have not sold. Prices calculated by the new method will more accurately reflect the relative importance of the various grades marketed and the channels through which the products are sold.

Near the close of the fiscal year, a study was initiated to deal with farmers' cost for insurance incurred on behalf of the farm business. Progress was made during the year in incorporating data from the 1958 Farm Expenditures and Income Survey into the series of statistics on farm finance.

The Special Projects Section was engaged almost entirely during the year in work on the 1958 Farm Expenditures and Income Survey and in organizing and co-ordinating activities required to produce the Farmer Mailing Lists from the 1961 Census of Agriculture. Data tabulations were completed for most of the general non-analytical tables from the survey consisting of estimates of aggregates and averages, by provinces, for detail items reported in the schedule and summary items derived from the schedule. Computer processing was completed during the year for 72 of 260 analytical tables. First results of the Survey were released during November 1962, in a publication entitled *1958 Farm Survey Report No. 1: Expenditures, Receipts and Farm Capital*.

BUSINESS FINANCE DIVISION

A large part of the work of this Division is centred around the collection and analysis of the financial statistics of business firms. Surveys of corporation profits and related data are conducted quarterly and the results published about ten weeks after the end of each quarter. Profits data are provided for twenty broad industrial groups and a more detailed breakdown of these than formerly is being attempted, requiring some increase in the number of firms covered and additional detail from multi-industry firms. Estimates of capital and repair expenditures on construction, machinery and equipment are obtained three times each year from business, institutions and governments. Estimates of the expenditures of individuals for housing are also included in these surveys. One survey of capital and repair expenditures is conducted in the Fall of the year and obtains estimates for the current year and intentions for the year ahead. Each Spring estimates of actual expenditures for the previous year are collected and at mid-year a sample survey is undertaken to review the stated intentions of the previous Fall. Two reports are issued each year on the results of these surveys: *Private and Public Investment Outlook* is released in late February or early March and gives the outlook for that year, preliminary estimates for the previous year and final estimates for the year prior to that; *Private and Public Investment Mid-Year Review* is released in July and gives a re-assessment of the intentions stated the previous Fall for the current year.

The results of the profits and investment surveys provide the basic data for these items in the National Accounts and are widely used by business and government as key indicators of current and future developments in the economy. Investment in plant, equipment, housing, institutions and other facilities

is of particular significance in Canada since over a fifth of the nation's expenditures are usually made for these purposes. The size and content of the intended investment program and its regional distribution provide much information on the support that may be given to general economic activity as a result of the direct demand generated for labour, materials and equipment during the construction period and later when newly created plants or other facilities start production.

In addition to the construction data provided in the investment reports which show expenditures on construction by industries, agencies, or organizations paying for the work done, another report is prepared entitled *Construction in Canada* which provides information on value of work put in place by type of structure along with over-all estimates of labour and material content of this work. The value of construction by type of structure is reported in the capital expenditure or investment surveys. The labour and material content of these expenditures is estimated by applying ratios derived from surveys of construction contractors to the total cost estimates taken from the investment surveys. Separate estimates are also shown for the total value of work performed by construction contractors and that performed by others engaged in construction work on their own account. The report containing this information is usually released in May of each year.

Monthly statistics on construction activity, as reflected by building permits data collected from over 1,000 municipalities in Canada, are published about six weeks after the close of each month in a report entitled *Building Permits*. This report contains information by provinces on the number and value of housing units by type, for which permits have been issued, along with value data as given on the permits for industrial, commercial, institutional and government building construction. During the year, the Division undertook a program of research and development in co-operation with the Central Mortgage and Housing Corporation as a first step towards improving the quality of housing statistics. Since building permits data are used extensively in estimating the number of housing starts, a complete review was made of this series, coverage was expanded and follow-up procedures improved so as to obtain reports from all municipalities in Canada issuing building permits. Improvements were made in the methods of estimating residential capital formation to provide more accurate quarterly figures. Preliminary work was undertaken on the reconciliation of estimates of housing activity between 1951 and 1961 with census data on housing stock at these dates.

Work continued on the new quarterly survey of corporation assets, liabilities and net worth which was started in 1961 to meet the need for information on the financing of corporation activity, their liquidity position and probable demand for funds. Quarterly data up to and including the fourth quarter of 1962 will be published in May of 1963 for trust companies, mortgage loan companies, sales finance companies and small loan companies. Quarterly data for non-financial corporations will be published as surveys of this sector are improved and more complete information becomes available.

An annual survey of the financial aspects of trustee pension plans is conducted in July each year and the results of the survey are usually published about December of the same year. These surveys collect income,

expenditure and assets data for plans with fiscal years ending between July 1 of one year and June 30 of the following year from employers having a trustee pension plan and from trust companies on the investment of pooled and mutual funds. There are a variety of uses for the data collected: pension payments of individuals form a part of forced savings as recorded in National Accounts; trust and investment companies are able to follow developments in pooled and mutual funds; and government bodies to use the data as background material in social security studies.

Data was also collected on the non-financial aspects of all pension plans in operation in Canada, including underwritten as well as trustee plans. The purpose of this survey was to obtain selected information about the terms of the plans, such as eligibility, contribution formulae, the type of underwriter or trustee involved and cash option arrangements. The survey was finished in February 1962, and the results were published the following November.

Two reports on research activity, *Industrial Research-Development Expenditures in Canada* and *Federal Government Expenditures on Scientific Activities*, are released by this Division in alternate years. Data are collected during the summer months on research expenditures made during the previous year and the report is usually available in the Fall. Both reports show expenditures by scientific fields and also provide information on the number of professional employees and their level of training. The *Industrial* report shows expenditures by industry group and the *Government* report provides similar information by Department.

Monthly reports are issued on the total value of cheques cashed in fifty-one clearing centres in Canada which account for more than 80 per cent of all cheques cashed. Quarterly reports are issued on commercial failures in Canada on the basis of information supplied to the Bureau under the provisions of the Bankruptcy and Winding-Up Acts. The number of failures and the liabilities incurred are reported by region and by industry.

A continuous survey of new firms is conducted to assist divisions of the Bureau in maintaining up-to-date coverage in various Bureau surveys. Efforts are made to cover all establishments in manufacturing and wholesale trade and, for other businesses, those with fifteen or more employees. Co-operative arrangements exist with provincial governments whereby the results of these surveys are made available to them. The publication *New Manufacturing Establishments in Canada*, issued semi-annually, is based on results of this work.

The Division is responsible for constructing a standard list of establishments according to definitions set out in the most recent issue of the *Standard Industrial Classification Manual*. As the name implies, it is intended that this list be used as the standard industrial classification of establishments throughout the Bureau for the purpose of attaining comparability of coverage between one statistical series and another. By year-end, work was well advanced on this project.

CANADA YEAR BOOK, HANDBOOK AND LIBRARY DIVISION

The program of the Division includes the compiling, editing and publication of both English and French language editions of two official compendia of information on the Canadian economy, the large 1250-page reference volume, *Canada Year Book*, and the 320-page illustrated handbook, *Canada*, as well as the revision of material relative to Canada for a score of national and international yearbooks, and the maintenance of a suitably stocked library for statistical research and study.

Although initial work was performed during opening months of the year, the compiling and editing of the 1962 edition of the *Canada Year Book* was completed in October and held for simultaneous publication in both English and French language editions on December 4, 1962.

In the interests of economy, during a period of government austerity, it was decided to advance the publication date of the next edition of the Year Book to the beginning of the new fiscal year in April 1964, thereby entitling it the *Canada Year Book 1963-64* and its French counterpart *Annuaire du Canada 1963-64*. By the end of the fiscal year under review, planning of its contents was largely completed and the compiling and editing of the opening chapters well in hand.

The 1962 edition of the official handbook, *Canada*, was published in English and in French by offset process during the opening months of the fiscal year and released simultaneously on May 15, 1962. The planning, preparation and editing of *Canada 1963* were carried on during the period September 1962 to February 1963 and were sufficiently advanced to anticipate possible publication, in both languages, by the end of May.

In its capacity as a focal centre for Canadian statistical material, the Division supplied regular series of Canadian statistics each month for the United Nations Statistical Bulletin and the International Labour Office. In addition, the long-established practice of providing up-to-date annual revisions of Canadian material was continued for a great variety of standard national and international reference works.

The Library at the Dominion Bureau of Statistics maintains a large stock of books, periodicals, documents, and reports for the use of the DBS staff and research workers. It also has an extensive collection of statistical publications received on an exchange basis from nearly all countries of the world. The Library's resources are used not only by Bureau staff but by other government departments, business firms and academic staff throughout Canada as well as the United States through inter-library loan facilities.

In the interests of the best use of limited library space and of library services, a policy of constant review of library material is maintained, embracing considerable disposal of surplus items and rearrangement of stock. For example, current arrangements include the transfer to the National Library or to university libraries of all foreign material not required by the DBS Library, the complete rearrangement of provincial government material, and the further reorganization and centralization in the Library of the periodical collections.

An expanded classification for DBS publications was completed and will be applied in the proposed *Historical Catalogue of DBS Publications*, now in final draft stage. This is based on the classification in use for current DBS material which is listed in the catalogue of *Current Publications*. The Library's own collection of DBS publications is being rearranged by this new classification.

Cataloguing of new material in the Library has reached a stage where there are no arrears and it is possible to make progress on recataloguing of older material, including the remaining foreign publications.

The installation of a Xerox machine in the Bureau building has provided a more efficient means of copying articles and statistical tables for internal use by Bureau personnel as well as a means of answering inquiries quickly. This machine also permits the economical reproduction of limited numbers of out-of-print DBS publications, thereby meeting the needs of libraries requesting otherwise unavailable publications.

CENSUS DIVISION

Final results of Canada's Tenth Decennial Census of 1961 are being issued in the form of individual reports as the information becomes available. During the 1962-63 fiscal year, fifty-four reports were published.

The processing of the results of the 1961 Census enumeration was carried out on a large-scale electronic computer. By this process, information from the completed questionnaires is first recorded on magnetic tape by means of the electronic "document reader" at the rate of 600 forms per minute and then fed into the computer without the need for intermediary punch cards. After examining the records for completeness, the computer rearranges and summarizes the data to produce the tabulated results of the Census at speeds not otherwise possible and with numerous built-in checks for accuracy. Cross-classification of data is thereby facilitated and the quality of statistics improved. In addition, the volume of the tabulations has increased beyond that of any previous census because of the increased capacity of the equipment.

In the year under review, the staff of the Division was engaged primarily in checking the machine tabulations of the data on Population, Housing, Occupations and Agriculture and assembling the information from these tabulations into statistical reports for publication. As the individual tabulations were received from the computer, the results were checked, analysed and evaluated. The resulting statistics were then arranged in a series of tables as well as in reports for publication in advance of the series of detailed releases which will later be combined in the different subject Volumes of Census information. Subsequently, more detailed tabulations including cross-classifications were checked and compared for agreement with those made earlier and finally arranged in tabular form for publication.

A complete Census of Merchandising and Services is also made every tenth year. Following the checking of the enumeration documents provided by the 1961 Census of Population enumerators, report forms were prepared and

mailed early in 1962 to retail stores, wholesalers and service trade operators. Compilation, analyses and publication data in these fields are being carried out by the Industry and Merchandising Division of the Bureau and reports in these areas will begin to be released late in 1963.

The planning of the Census reports continued throughout the year. Booklets entitled *Publications of the 1961 Census of Canada*, listing Census publications with probable dates of release were prepared and distributed by the Information and Public Relations Division. A revised and complete brochure listing all Census reports will be prepared at the year's end and will list a number of reports which were not planned in detail at the time of printing the preceding brochure.

The individual census reports comprise four main series: -

1. The *Advance Series* provide summary information on specified basic topics for which there is a wide demand and are published earlier than the regular series of Volume Reports. The first three reports of this series were published in the previous fiscal year, while twenty additional reports showing basic characteristics of the Population, Housing, Labour Force, Agriculture and Farm Woodlands were released during the past twelve months.
2. *Volume Series* represent the main results of the 1961 Census and are prepared in such a way that the user can combine the contents to form the subject matter of each Volume. Twenty-eight reports in this series were published dealing with characteristics of the Population, Housing and Labour Force.
3. The *Special Series* contain some basic materials not included in the regular Volume Series and which relate, for the most part, to more detailed or smaller geographical areas. During the year, three reports dealing with farm characteristics and one showing the Population by specified age groups and sex were printed.
4. *Census Tract Series* contain basic Population, Housing and Labour Force data for each of the larger cities (or Metropolitan Areas) according to Census Tracts, (i.e., areas of approximate uniformity in population size and composition). The first two of the twenty-five reports in this series were published at the close of the fiscal year.

In order to conserve storage space and preserve for future reference, the microfilming of the 1961 Census Population Documents was undertaken. Progress was made on preparing charts and other material describing the operations of the 1961 Census for inclusion in the Administrative Report.

A series of analytical monographs on Canadian economic and social life as measured by the Census will be published in due course. At the end of the fiscal year, the preparatory material was being completed for the authors, many of whom are university professors of economics or sociology.

In the Census Analysis Section, the regular continuing series of population estimates and citizenship statistics were prepared for publication. The first report in the annual series of population estimates for thirteen Metropolitan Areas was prepared and released during the fiscal year, as well as one

bulletin entitled *The Growth of the Population*, in the series of Analytical Reports of the 1961 Census results. Manuscript for a second report in this series was prepared for publication. Assistance was rendered in preparing population estimates and projections for the Department of National Health and Welfare and for the Royal Commission on Health Services.

In the Administration Section some 48,000 applications for verification of age using early census and National Registration records were received and processed during the year.

Consultant services on census matters were provided by Officers of the Division to other Divisions of the Bureau and to other Government Departments. A representative of the Division served on the DBS Committee on Geographical Classifications. Meetings with officials of the United States Bureau of the Census took place and a program for training a number of United Nations, International Co-operation Administration and other international students and observers was held during the period under review.

An extensive review of the Division's functions and staff requirements for planning future censuses was under way at the end of the fiscal year and a comprehensive plan for reorganization and strengthening the Division is expected to result.

EDUCATION DIVISION

The primary task of the Education Division continues to be that of collecting and disseminating information which describes the state of Canadian education. However, its role is changing and expanding to meet an increasing number of requests for further analysis and greater interpretation of the available information. Year by year, the Division provides increasing consultative service for research personnel in education and for many officials having some responsibility for the actual conduct of public education.

Since Canada has no education documentation centre, the Education Division, along with the Canadian Education Association, Canadian Teachers' Federation, Canadian Universities Foundation and other education departments or bodies, share this responsibility. As the Division compiles data on education for Canada as a whole, it provides reports, statistical data and other materials for international bodies, national organizations, Government Departments, associations and individuals. These vary in length and complexity and include chapters for UNESCO publications, tables and textual materials for yearbooks and handbooks and a wide variety of other publications.

The Division operates in a field where provincial governments exercise jurisdiction within their boundaries and collect statistical data on education, mainly for administrative purposes. Because of this, the Division maintains informal though close liaison with provincial departments, and the data collected serve both the provincial departments and the DBS. Similar relationships have been developed with the universities, business colleges and other types of educational institutions, both public and private. The Division also works closely with national educational organizations.

The Education Division is organized into six sections covering the elementary-secondary field, higher education, adult education, vocation-technical education and training, education finance, and education research, each of which, except for research, is charged with developing comprehensive series within its area and keeping abreast of changes and developments. Forms for the collection of data from the elementary-secondary schools are designed co-operatively with provincial departments for eight of the ten provinces. The other two—Quebec and Ontario—use similar forms prepared after consultation with the Bureau and provide data from these for the Division. Comparable data are obtained from the Indian schools, schools of the Northwest and Yukon Territories, Department of National Defence schools and private academic schools. This has ensured reasonable comparability, although there are still problems in equating teachers' certificates and combining school and grade classifications for all Canada. Data on higher education, business colleges, teacher training colleges and private business colleges are obtained directly from the institution on forms prepared by DBS to ensure comparability.

The Chief of the Higher Education Section has been working with the university business officers and registrars to improve the forms for the collection of data on finances and enrolment and the Chief of the Vocational Education Section has been working with the Technical and Vocational Training Branch of the Department of Labour and provincial representatives to devise forms which will produce comparative statistics for all programs receiving support from the Federal Government; similar figures are collected from private trade and technical schools. With the co-operation of the Canadian Library Association, adult education associations, the Canadian Association of Directors of Extension and Summer Schools and others concerned, the Chief of the Adult Education Section is attempting to obtain adequate coverage on a reasonably uniform basis in the field of adult education. The Chief of the School Finance Section has been co-operating with representatives of the Provincial Departments of Education and others concerned to produce an accounting manual for secretaries of school districts and hence improve their accounting procedures. Much work remains to be done to ensure complete coverage of expenditures on education in Canada and to devise means of showing figures for the current year.

The annual output of the Division consists of some fifteen reports, of which eleven are, or soon will be, regular annual publications. Occasional publications, which number four or five, generally remain current for several years, so that at any one time some twenty-five publications on education are available. In addition, each year the Division prepares special releases such as lists of private schools, short reports on institutes of technology, private business colleges and teacher training colleges. The *DBS Daily Bulletin* is used also to publish advance releases of current information, most of which will appear later in one of the regular publications.

During the year under review, the Elementary-Secondary Education Section issued *Survey of Elementary and Secondary Education, 1959-60 and 1960-61*; *Salaries and Qualifications of Teachers in Public Elementary and Secondary Schools, 1961-62*; *Enrolment and Staff in Schools for the Blind and Deaf, 1962-63*; *Some Statistics of Private Elementary and Secondary Schools, 1961-62*; and *Interprovincial Transfers and Immigration of Children into*

Canada, 1961-62. In addition, the usual compilations were prepared for the Departments of Education of Newfoundland, Nova Scotia and Prince Edward Island for the year 1961-62. The Newfoundland Teachers' Federation purchased from DBS a set of punched cards based on the teachers' Fall reports for their province; this was the fifth department or teachers' association receiving such sets. Special requests dealt with included: one covering teachers with Saskatchewan certificates teaching elsewhere; one on size of classes in selected Canadian cities; and one on size of class related to university degrees.

The Chief of the Elementary-Secondary Education Section spent four months in Libya, acting as statistical advisor for UNESCO.

During the year, the Higher Education Section produced *Fall Enrolment in Universities and Colleges, 1961*, and *Salaries and Qualifications of Teachers in Universities and Colleges, 1961-62*. The text and tables for the *Survey of Higher Education, 1954-61* were prepared for printing and *Fall Enrolment in Universities and Colleges, 1962* and *Salaries and Qualifications of Teachers in Universities and Colleges, 1962-63* are under preparation. Other releases included: a compilation of salary scales at major universities for the Canadian Association of University Business Officers and the Canadian Association of University Teachers; an extensive analysis of 1962-63 salaries for the latter association's Bulletin; and data on average age of faculty by rank and university.

An extensive chapter on higher education in Canada was prepared for UNESCO's *World Survey of Education*; a report on engineering for an Indian publication, and a listing of Canadian universities for a handbook published by the International Universities Bureau. Data on enrolment by graduating year were collected for the Pay Research Bureau of the Civil Service Commission, the National Research Council and the Canadian Association of University Teachers.

The Chief of the Higher Education Section participated in meetings with national university organizations and, in addition, gave a paper on Canadian higher education to the Admission Committee of the Greater New York Council for Foreign Students at Columbia University.

In the Vocational Education Section, considerable time was spent in the planning and administering of the survey of 1961-62 college student costs. In co-operation with officials of the Department of Labour and the provinces, a re-organization of statistical reporting was effected in the field of vocational education. In addition, the 1960-61 edition of the *Survey of Vocational Education and Training, 1960-61* was published and bulletins covering Institutes of Technology, Private Business Schools and Private Trade Schools were issued. A special comprehensive compilation of data on apprenticeship from 1950-1962 was prepared for the Advisory Council on Apprenticeship Training of the Department of Labour. Considerable exploratory work was also undertaken covering organized in-plant training in certain industrial groups.

The Chief of the Vocational Training Section participated in meetings of the Advisory Council of Vocational Training, Advisory Council on Apprenticeship Training, Advisory Committee on Technicians Training and the Skilled Manpower Committee convened by the Department of Labour.

In the Adult Education Section, the following publications were made available: *Survey of Libraries, Part I: Public Libraries* 1960; *Survey of Libraries, Part II: Academic Libraries* 1960-61; and *Survey of Adult Education, 1959-60*. Special releases included *The Adult Learner at University, June 1962* and *Report on Pilot Project, 1962*. In the pilot project, summer school students of the University of New Brunswick were required to complete a card when enrolling, which was readily processed to give current information on the students. It appears that such a method, whether undertaken by a central office or separate institutions, is feasible and has many advantages. In addition, reports were prepared for UNESCO on Libraries, Educational Opportunities of Rural Women and on Illiteracy.

The Finance Section issued *The Survey of Education Finance, 1958* and almost completed the tables and text of the 1959 and 1960 surveys. At the request of the Newfoundland Department of Education, a survey of finances for 23 school boards in 13 medium-sized cities was undertaken, and the resulting tables circulated to all participating boards. The Chief of the Finance Section took part in a Canadian Library Association workshop which discussed the subject: "What form could federal aid to libraries take in Canada?"

In addition to publishing the 1961-62 edition of *Preliminary Statistics of Education*, and preparing the 1962-63 edition, the Research Section was engaged in the survey of University Student Expenditure and Income in Canada, 1961-62. The report will be released in three sections: - *Non-Canadian Students, Canadian Undergraduate Students* and *Canadian Graduate Students*.

EXTERNAL TRADE DIVISION

The External Trade Division was established on April 1, 1962, and assigned responsibility for statistics of Canada's commodity trade with other countries. These statistics are published in the *Trade of Canada* series of reports, and are widely used in the business world and in government for specific market analysis, general economic analysis and as a guide to international economic relations.

The uses of external trade statistics demand that they be published promptly and in detail by commodity and country. During the fiscal year 1962-63, considerable progress was made in reducing the delays affecting monthly publications. By the end of the year, export statistics had returned to the 5 to 6-week publication schedule in force before the introduction of the new Export Commodity Classification and import reports were appearing some weeks earlier than had been the case in the previous year.

The first results of a program to improve the release dates of the three volumes of the annual *Trade of Canada* report also became evident during the year. These volumes had been appearing at an increasingly later date for some years. To overcome the delay, it was decided to produce the photocopy for Volumes II (Exports) and III (Imports) by mechanical tabulation and to publish only every second year until normal timeliness had been regained. The first

issue of Volume II on the new basis (for 1959-60) was released in May 1962 and that for 1961-62 is expected to be available in the autumn of 1963, which will almost restore the normal schedule for this volume. It will take about two years to regain normal timeliness for Volumes I and III. Besides speeding the production of these volumes, the new technique substantially reduces their cost.

The transfer of import tabulations to the computer, in January 1962, created transitional problems for the compilation of import statistics for most of the first half of 1962. By the latter part of the year, these difficulties were rapidly coming under control and the estimated time required to produce a month's import statistics had been reduced to about two-thirds of that estimated for the earlier months of the computer operation. At the end of the fiscal year there remained only one point at which a manual operation still caused considerable delay in the production of import statistics; this should be under control by the end of 1963.

It was not possible to introduce the new Import Commodity Classification in January 1963 because of a shortage of trained staff. This shortage would have greatly increased the delays in the production of monthly import statistics which will inevitably be associated with the introduction of a new classification. Considerable progress was nevertheless made towards this objective during the year, and the remainder of Section II of the new classification was introduced in import statistics from January 1963. About half of all import commodity classes are now fully consistent with the new classification.

HEALTH AND WELFARE DIVISION

This Division is responsible for the production of statistics on the state of the health of the Canadian people, the enforcement of law and the administration of justice in Canada. Three sections share the responsibility for producing health statistics. The Vital Statistics Section is concerned with recording and analysing births and deaths as well as producing statistical studies on mortality, fertility and life expectancy. This Section also receives records of marriages and dissolutions of marriages. The Institutions Section is concerned with collecting detailed information on the services, facilities, staffing and finances of general and special hospitals as well as mental and tuberculosis institutions. The Public Health Section is concerned with acquiring data on the conditions and characteristics of patients in hospitals of any treatment type and with obtaining figures on the incidence of a number of communicable diseases. A fourth Section, the Judicial, is responsible for the production of criminal and judicial statistics based on figures supplied by the National Parole Board, by police departments, courts and correctional institutions.

In keeping with the Bureau's statutory obligations in the field of Vital Statistics, the Division prepared and published the regular series as well as special reports on specific diseases and on particular features of mortality and life expectancy. The provinces were supplied with the basic tabulations required under Dominion-Provincial agreements.

Throughout the year, there was an increasing demand from medical, public health, market research and other areas for a fuller analysis of current and historical vital statistics. One instance of this demand was provided by the 'thalidomide episode', which resulted in carrying out an intensive examination of a large body of mortality data in order to honour requests from several sources for information on congenital anomalies of all types. Other requests handled related to research into the epidemiology of particular diseases and investigation of population and fertility trends. These requests gave rise to compilations more detailed and analysis more refined than those carried out in the past.

On behalf of the provinces and the Family Allowance Administration, the Division compiles numerical and alphabetic registers of births, deaths and marriages. Negotiations with the agencies concerned have been under way for some time, with a view to curtailing these non-statistical operations and it was possible to eliminate some of this work in 1962-63.

The Division also undertakes each year to provide the secretariat services for the Vital Statistics Council of Canada. One matter discussed in the year under review was the provision of the registers of births, deaths, and marriages; another was the content and design of the forms used for registering these vital events. The Council asked the Division to examine all these forms to evaluate the administrative and statistical usefulness of the items and to consider how best to standardize them in terms of content, size and spacing.

The Division is intent on reaching a number of objectives in the vital statistics field:—meeting new and continuing demands for additional data and at the same time advancing regular publication dates; reducing costs by taking every advantage of new techniques; and ensuring the maximum co-ordination between its own operations and those of the provincial registration and statistical offices. The Division is therefore experimenting with and introducing new processing techniques, arranging for the preparation of new and revised tabulations, and consulting with the provinces about the feasibility of receiving the raw figures in a form that will eliminate duplication in data-reduction operations.

In 1962-63, for the first time, electronic computer processing was used to prepare administrative and financial statistics of the hospitals providing general and special treatment services. The statistics for 1961 should be available for analysis and publication by the end of 1963. Included in the 1961 statistics is a new and comprehensive series of hospital indicators expressed in terms of ratios and relationships. In the past, there has been some delay and difficulty experienced in obtaining uniform and internally consistent data on which to base statistics related to general and special hospitals. These problems in source data are gradually being overcome by means of discussions with officials of provincial hospital insurance commissions, health departments and hospital associations. At institutes and seminars held in several provinces, reporting requirements and checking procedures have been explained by Division representatives.

The 1960 publication program for general and special hospitals was completed by the end of 1962. The analytical material, necessarily left out of the 1959 reports, was restored in 1960. The 1961 data relating to mental and tuberculosis institutions were prepared for publication.

At the request of the Royal Commission on Health Services, the Division undertook to collect, process and tabulate material on hospital morbidity statistics from eight provinces. In the meantime, the Division has received, or been promised, cards or magnetic tapes containing copies of the admission-separation records for all cases separated in 1961 from general and special hospitals. A standard code was devised to make the ten provincial codes compatible and a tabulating program based on this code was outlined. The 1961 admission-separation forms for Yukon hospitals were coded and tabulated.

In addition to publishing the regular reports on mental institutions, special work was carried out for the Royal Commission on Health Services, including a cohort-type study of a sample of those persons first admitted to mental institutions for treatment in the period 1958-60.

The regular reports on tuberculosis institutions were published during the year together with a monthly report on the incidence of tuberculosis derived from provincial registers of known active, inactive and reactivated cases of tuberculosis. Visits to several provincial registers and to a number of individual sanatoria were made during the year but more field work will be needed to perfect the new system of reporting established in 1961.

Weekly bulletins on the incidence of communicable diseases were released for the benefit of public health authorities and these figures were later incorporated into an annual publication. Tabulations of certain venereal infections reported to DBS were forwarded to the Department of National Health and Welfare for inclusion in a special report. All provinces except Alberta supply communicable disease records on weekly summaries. In the case of Alberta, individual case records are forwarded for all diseases except venereal infections and from these individual records, tabulations subdivided by age, sex, city and health unit, are prepared and sent to Alberta on a weekly and four-weekly basis.

The 1961 report on the home nursing services provided by the Victorian Order of Nurses was published but will be the last in this series; tabulations only will be made for the internal use of the VON. With the 1962 edition of *Illness in the Civil Service*, work in this area will cease although a modified form of data will be maintained in the Public Finance and Transportation Division but not published. The bi-weekly series *Upper Respiratory Infections within the Civil Service* will also be discontinued.

Publication of the results of the Canadian Sickness Survey, held in 1950-51, was concluded with the issuing during the year of the French version of a number of reports previously available only in English, including the comprehensive report *Illness and Health Care in Canada*.

To fulfil requests from the Department of National Health and Welfare, from organizations and individuals active in the field of health, the Division developed information on morbidity or health care. Both morbidity training and direct field liaison work were carried out during the year. A five-day course on the assignment of international diagnostic codes to hospital morbidity records was held in the Bureau, attended by persons from Federal Government departments, provincial hospital insurance commissions and individual hospitals.

Officers of the Division attended and spoke at a number of meetings, including the Second National Conference on Tuberculosis, the annual meeting of the Alberta Hospital Association, the Statistical Sub-Committee of the Advisory Committee on Mental Health and the Advisory Committee on Epidemiology.

In its work of producing statistics on law enforcement and on the administration of justice, the Division is now governed by Regulations to the Statistics Act approved by the Minister of Trade and Commerce. These Regulations deal with the collection and publication of statistics concerned with police administration, crime, traffic enforcement and criminal records.

The Division produced publications on crimes and traffic enforcement based on reports by police departments; on police administration based on reports by police departments; on criminal and other offences and on juvenile delinquents based on material supplied by adult and juvenile court officials; and a report on correctional statistics based on returns by correctional institutions and the Commissioner of Penitentiaries. In addition, statistical tables were prepared for supplements to the annual reports of the Commissioner of Penitentiaries and the National Parole Board. Three manuals were also prepared, one for the reporting of crime, one for reporting by penitentiaries and another for reporting by training schools.

Papers on the Uniform Crime Reporting Program were given at a number of police meetings throughout Canada. A *Police Records Manual* is being prepared by divisional officers with the co-operation of the Committee on the Uniform Recording of Police Activities. This Manual will assist police department officials in recording information and reporting data to the Bureau.

One difficult reporting problem was the identification of arson and of attempted arson in a way capable of meeting the distinct requirements of the different bodies interested in offences of this nature. The proper reporting method was established during a meeting at the DBS of the Canadian Association of Chiefs of Police and of the Association of Canadian Fire Marshalls; this became effective January 1, 1963. In response to requests by the C.A.C.P., a special one-time survey dealing with thefts of automobiles was set up to take place in May 1963.

Officials in the departments of the Attorneys General of the provinces and in the federal Department of Justice were interviewed by divisional officers during the year in connection with a proposed revision of the methods employed for reporting adult court statistics. A conference on this matter is scheduled for the coming fiscal year.

The juvenile statistics program will remain unchanged until recommendations have been made by the Committee on Juvenile Delinquency of the Minister of Justice. Divisional officers met frequently with members of this Committee which is working on an historical review of juvenile delinquency for which the Division prepared a number of tables.

On April 1, 1962, a revised program of reporting penitentiary statistics was implemented by the Division in co-operation with the penitentiary service to meet statistical and operational needs by use of newly designed forms and supported by a specially prepared reporting manual. As a result of discussions

between divisional officers and officials of the National Parole Board, the statistical parole form was redesigned and the means of forwarding the new form to the Bureau improved.

A new *Training School Statistics Manual* was issued to facilitate the filling in of the training schools admission, release and population forms introduced January 1, 1963, as a result of the Dominion-Provincial Conference on Training School Statistics held at the Bureau in 1961.

INDUSTRY AND MERCHANDISING DIVISION

The Industry and Merchandising Division is responsible for statistics in two important fields of activity: (1) *Industry*, comprising logging, fishing, mining and manufacturing; and (2) *Merchandising and Services*, comprising retailing, wholesaling and the service trades. A comprehensive industrial census is carried out each year, providing data on employment and payrolls, materials and fuels used, value of inventories and details of producers' shipments. More current data on important commodities produced and on total manufacturers' shipments and inventories are provided by appropriate monthly or quarterly surveys. Similarly, a complete census of the merchandising and service trades is made every tenth year, and current estimates of sales and inventories, in total and for important trades, are provided by monthly and annual sample-type surveys. Results of these surveys are published in a regular series of industry, trade and commodity reports—about 225 annuals and 65 monthlies or quarterlies.

In the annual Census of Industry, further progress was made in revising reporting procedures of multi-unit firms on the basis of the new establishment definition. The necessary information on corporate organization and accounting practices was obtained by correspondence, telephone calls and company visits by officers of the Division. A large number of additional reporting problems was revealed by the 1961 Census of Manufactures and the decennial Census of Merchandising and Services. As a result, methods of valuation and the treatment of Manufacturers' Sales Branches had to be investigated in many cases. The original accumulation of problem cases was reduced substantially but a considerable number remained outstanding at the year-end.

A start was made in the implementation of the Standard Commodity Classification in the annual Census of Manufactures. The preliminary work is being carried out jointly with the Central Research and Development Staff in connection with the requirements of the 1961 Input-Output study. Associated with the move toward gradual adoption of standardized commodity definitions, a considerable number of relatively unimportant commodity items were eliminated from the 1962 questionnaires. A number of "medium" type report forms were cancelled for the 1962 Census of Manufactures and, as a result, many establishments were transferred to "short" forms for reporting purposes.

The implementation of the new establishment definition in the 1961 Census of Manufactures affected the continuity of statistics for many establishments, particularly those of multi-unit firms. To provide comparability for a number of years, the statistics for these establishments were recompiled on the 1961 reporting basis for the years 1957-60 and these revised statistics are being published in the 1961 industry reports.

The Inventories Unit also had to spend extra resources on the implementation of the revised Standard Industrial Classification and the new establishment definition. At year-end, the recompilation of the monthly series on manufacturers' shipments, inventories and orders to the revised S.I.C. basis was nearing completion. The results of the 1960 Census of Manufactures, based on the new S.I.C., are being used as benchmarks for the revised monthly series. Associated with this project was the adjustment of reporting procedures in the monthly survey to the new establishment concept. The Inventories Unit participated in the work of investigating the organization and accounting practices of manufacturing firms and arranged, where necessary, for changes in reporting procedures in line with the revised basis of reporting in the annual Census of Manufactures.

In the primary industries, the principal new developments were in forestry where the sample surveys, designed to provide estimates of the cut of primary products on privately owned woodlots, were extended to cover all of Prince Edward Island, Nova Scotia and New Brunswick, and a large part of southern Ontario. Exploratory work was done in Quebec, Manitoba and Alberta. Compilations were completed for the "cut" of wood products on farm woodlots, as enumerated at the time of the decennial Census of Agriculture taken on June 1, 1961. A Federal-Provincial Conference on Forestry Statistics, the first of its kind, was held in Ottawa in March 1963. Divisional officers continued to participate in the activities of the Interdepartmental Advisory Committee on Forestry Statistics. In fisheries, the annual census of fish processing plants was extended to include operators in the Provinces of Ontario, Saskatchewan, Alberta and in the Northwest Territories, as well as the Atlantic Provinces, Quebec and British Columbia. In mineral statistics considerable attention was given to the elimination of differences in the data published by the provinces and by the DBS.

In the area of productivity measurement, progress was made on the calculation of average hours worked figures for the commercial non-farm economy since 1947, and on the development of suitable employment data, from various sources, which match both the average hour and real output series. The principal adjustments consisted of calculating allowances for the shortening work-week by sex and by industry. Work on the numbers employed included the evaluation of factors causing differences between various employment series, e.g. turn-over, part-time work, coverage and weighting. Progress was also made on several manufacturing industry studies in order to provide specific productivity series as well as to develop the methods for general use. The problems varied greatly from industry to industry but some of the more important concerned the changing product-mix and quality, the introduction of new products and the difficulties of labour input data. The Productivity Research Section also prepared material for various international agencies and contributed substantially to interdepartmental statistical co-ordination.

Collection and compilation of data on stocks of critical survival materials was extended in co-operation with the Emergency Supply Planning Branch, Department of Defence Production. Tabulation print-outs now provide quarterly data by locations for 61 food items and 87 clothing items. Projects in the development stage involve data on stocks of fish at processing plants, warehouses and cold storage plants; a survey of holdings of about 500 pharmaceutical products; area tabulations of stocks of coal and other fuels; and a survey of capacity and equipment of bakeries.

Work on the 1961 Census of Merchandising and Services was well advanced at the year-end. Following the checking of enumeration documents provided by the 1961 Census of Population enumerators, report forms were prepared and mailed early in 1962 to 150,000 retail stores, 30,000 wholesalers, and 100,000 service trade operators, and by the end of the year collection in all areas was practically complete. Editing of incoming reports was also well advanced and checks completed on the adequacy of enumeration and on businesses which were not in operation at the time of enumeration. Some priority was given to retail trade with the objective of releasing, in June 1963, a preliminary report by kinds of business for Canada and the provinces. More detailed reports on retailing are expected to follow in early Fall, and initial summaries on the service trades and on wholesaling will also appear at that time. A special survey of 20,000 manufacturers' trading outlets to provide data on channels of distribution is also being carried out by the Census staff and it is expected that results will be made available early in 1964. Continuous attention was given during the year to the intercensal program on merchandising and services statistics to be put into effect in 1964 when the basic Census data are available.

INFORMATION AND PUBLIC RELATIONS DIVISION

In recognition of the increasing importance of its functions, the Information and Public Relations Division was created a separate division at the close of the 1961-62 fiscal year.

During the year under review, this new Division served as the focal point for the release and dissemination of the published information of the Dominion Bureau of Statistics. In performing these functions, it published the DBS *Daily* and *Weekly Bulletins* which serve to summarize the publications of the Bureau as they are released. In addition, the Division replied to a large number of enquiries which required the assembling of published statistical information from a variety of sources. In the sphere of public relations, it prepared conference display material promoting DBS services for exhibitions and seminars. The Division published, in co-operation with the Department of Public Printing and Stationery, DBS catalogues of *Current Publications*. At the close of the 1962-63 fiscal year, work on a 1963 revision of the current 1960 catalogue was far advanced and, when completed, will incorporate material from supplemental catalogues issued in the intervening years.

Arrangements were made for several television and radio performances by officers of the Bureau, thus informing the public of the work of the Dominion Bureau of Statistics.

In the 1962-63 fiscal year, the Division was preparing plans to:— (1) develop new promotional programs to expand the sale of DBS publications in co-operation with offices of the Department of Public Printing and Stationery across Canada; (2) find means of expanding newspaper coverage of DBS material by the preparation of press releases supplementary to the *Daily Bulletin*; and (3) publish booklets and brochures which would assist the public to locate their way among the multiplicity of Bureau reports and the material contained therein.

LABOUR DIVISION

The Labour Division consists of three sections: the Unemployment Insurance Section, the Employment Section, and the Labour Income and Research Section. The Unemployment Insurance Section provides the Unemployment Insurance Commission with operational statistics; it also publishes statistics of public interest concerned with persons covered by unemployment insurance and persons claiming benefit. The Employment Section collects industrial establishment records of employment, hours of work and wages and salaries; it publishes index numbers of employment and payrolls, and per capita figures of hours and earnings. The employment index numbers are widely used for industry and area analysis of employment changes; per capita data on earnings and hours of work have several uses, the most important of which is perhaps in collective bargaining between labour and management. The Labour Income and Research Section issues labour income estimates giving industry and area totals and undertakes research and analysis pertaining to the general field of labour statistics.

During the 1962-63 fiscal year, the Unemployment Insurance Section continued its regular program of preparing statistics concerning the operation of unemployment insurance. In addition, a number of special projects were undertaken. Senior officers of the Section advised the Unemployment Insurance Commission in the planning of surveys to provide the Royal Commission on Unemployment Insurance with information regarding the contribution record of claimants in the two years prior to the claim, and carried out the processing of the survey results. Assistance was given to a study conducted at Memorial University, Newfoundland, concerning application of unemployment insurance to the fishing industry in that province. This assistance included technical advice on the operation of seasonal benefit and the selection and processing of a sample of claims documents.

For the first time arrangements were made with the Unemployment Insurance Commission to provide a punch card return at book renewal time showing total as well as insured employment. These book renewal punch cards, when coded in DBS, will be used to convert the Unemployment Insurance Commission Employer Index to the new Standard Industrial Classification. In return, the Unemployment Insurance Commission will reproduce for the Bureau a punch card index which can be used for the mechanical selection of establishment samples.

During the course of the year, professional staff of the Section contributed a number of articles and working papers relating to unemployment insurance and labour statistics generally. Several of these were published in the *Canadian Statistical Review* and other Bureau publications.

The Employment Section continued its regular program of preparing statistics of employment, hours and earnings. The monthly survey was tabulated on the computer commencing early in the fiscal year and parallel runs with regular tabulations carried out until mid-year. The computer reduced the amount of clerical time involved in the manual calculation of averages and ratios and made available a much larger number of such calculations on a routine basis for meeting special requests.

A working document for interdepartmental distribution was produced extending the seasonally adjusted employment series for major industry groups. Progress was also made in compiling seasonally adjusted industrial composite indexes for the provinces. It is planned to include these in the monthly publication *Employment and Payrolls*.

The monthly sample survey of employment in small firms was continued and tentative estimates of total industrial employment were compiled for major industries and provinces. As year-to-year comparisons became available and the effect of various collection and compilation methods could be tested, a number of modifications were made to improve response, reduce operational costs and sample variance. An over-all review of the project, including the sample design, is being undertaken prior to releasing the estimates.

Following a study of the effect of their exclusion on published data, establishments of marginal size in the large-firm survey were transferred to either the small-firm survey sample frame or the self-representing sector of this survey. This forestalled an anticipated 5 per cent increase in the number of reporting units.

Substantial progress was made in the long-term major revision project. This project involves the adoption of the revised Standard Industrial Classification and a new standard definition of business establishment, the revision of geographical coding, the transfer of index numbers of employment and payrolls to the 1961 base period and the re-working of historical series on the new base. The planning of computer programs for most aspects of the work was completed and computer runs of preliminary base-year averages produced. More than half of the detailed check of individual establishments was completed.

During the year the Labour Income and Research Section participated in a number of research and development projects. Estimates of total numbers of employees were computed monthly by industry and province using data prepared in the Employment Section and elsewhere. An investigation of methods of improving estimates of numbers of employees in health and education was carried out. Work continued on the project of compiling historical series of estimates for eventual publication. For most of the year, assistance was provided the Employment Section in the processing of small-firm Employment Survey results. Studies of sampling error in these data were also carried out. Monthly estimates of labour income were produced regularly and work was commenced on the decennial revision of labour income estimates.

NATIONAL ACCOUNTS AND BALANCE OF PAYMENTS DIVISION

The sphere of this Division was widened with the transfer of the Balance of Payments Section from the former International Trade Division in April 1962. The responsibilities of the enlarged Division cover the preparation and analysis of the principal Canadian economic accounts and comprehensive indicators which are published regularly. This set of economic statistics is integrated into a related framework from the wide body of Canadian statistics which, for the most part, are collected by other Divisions of the Bureau.

Regular publications include quarterly and annual reports on national accounts and balance of payments, annual reports covering a survey of production, foreign capital invested in Canada and Canadian capital invested abroad, as well as travel between Canada and other countries. Monthly publications include *The Canadian Statistical Review*, *Index of Industrial Production*, *Sales and Purchases of Securities Between Canada and Other Countries*, *Travel Between Canada and Other Countries* and *Travel Between Canada and the United States*. *The Canadian Statistical Review*, with its *Supplements*, is the most comprehensive of the monthly publications, being the medium for presenting a selection of Canadian statistics from the whole range of information encompassed in the various fields covered in the Bureau's activities and from other sources. This publication also contains an article each month reviewing developments in special fields of Canadian statistics and, as well, it is a leading channel for the public presentation of monthly, seasonally adjusted series produced in the Current Business Indicators Section.

A reference paper showing real domestic product by industry of origin was completed by the Industrial Output Section and in the hands of the printers at the year-end. This major piece of research, under way for a number of years, constitutes an extension of the index of industrial production, which covers about one third of the national product, into other industries of the economy. The additional industry divisions covered in the present study extend over the whole range of primary industries and services with considerable component detail. The new indexes are presented in the document for each year over the period from 1935 to 1961 and quarterly from 1946. This reference paper contains an explanation of the conceptual background and the relationship of the series to the national accounts.

Over a period of years the national accounts have been extended into new areas of analysis and new forms of presentation, a development undertaken in response to the requirements of users and the international standards that are accepted goals in the meaningful presentation of economic accounts. With the complex framework of interrelated information that has been developed, there has been a need to appraise the quality of the data produced. During the year under review, close consideration has been given to the available statistics in relation to quality and to their intended uses. Also, with the object of ensuring quality and keeping up with new developments in the economy, extensive relations were maintained with supplying Divisions in the continuous measurement of major elements in the accounts.

To provide a convenient record for most of the postwar period, a special report entitled *National Accounts, Income and Expenditure, by Quarters, 1947 to 1961* was published during the year. In this report there was brought together under one cover the most recent main tables of the national accounts as well as tables developed of late covering government revenue and expenditure, national saving, and seasonally adjusted constant dollar estimates of gross national expenditure.

In the Current Business Indicators Section some special attention was given to a project on the development of historical monthly statistics in response to the need of the Canadian Political Science Association. A new publication was being prepared by this Section with many of the series corrected for seasonality from primary data supplied by many other sources elsewhere in the Bureau including the Industrial Output Section. This is in

addition to the continuing review of existing seasonally adjusted series, the past record of which has been issued in a new annual *Supplement to the Canadian Statistical Review*.

Balance of payments statistics were in special demand because of interest in the results of official measures introduced in the early part of the fiscal year to stabilize the international exchange value of the Canadian dollar and Canada's international transactions. The meeting of such current demands were given priority over some longer-range statistical programs.

Developments under way in recent years continued to be made in the field of recording short-term capital movements and the international money market, facilitating the analysis of the massive movements in this sector of the balance of payments during 1962.

With major changes in the trends in international travel arising from the official measures referred to above, statistics in this field were also in special demand. Among new statistical developments was a special survey of Canadian automobile travel in the United States with the object of supplementing the regular sampling of this group.

From the records of international investments a special study was made of the size distribution of United States-controlled manufacturing enterprises in Canada and also the largest enterprises in Canada, including those controlled in Canada in the fields of petroleum and natural gas, mining and manufacturing. Some of the more salient parts of the study were presented in the *Canadian Statistical Review*. Another extension of statistics in international investments was a new enlarged survey of Canadian holdings of United States stocks through the co-operation of more than four hundred United States corporations.

Officials of the Division participated in preparations for the introduction of the Corporations and Labour Unions Returns Act by which financial statistics of interest in the field of the balance of payments and international investment will be collected.

Relations with the International Monetary Fund and various other international organizations continued to absorb an increasing amount of the time of officers of the Division. These involved participation in meetings in Washington and in Ottawa as well as preparation of special information required of Canada as a member of different international organizations. The Division was represented at international meetings of experts in Europe in the fields of the measurement of industrial production as well as international travel research and at several meetings in both Canada and the United States dealing with the Canadian economic background. In addition, an official of the Division collaborated in the presentation of a paper on *Price Indexes in a Social Accounting Framework* for the Canadian Political Science Association.

PRICES DIVISION

The function of the Division is to collect, compile and publish data on prices and consumer expenditures. The Division consists of five sections: Retail Prices, Consumer Expenditures, Wholesale Prices, Farm Prices and International Prices. The principal emphasis in the prices program is on the construction and publication of price indexes but data on average prices are

also published for selected commodities. Surveys of urban consumer expenditure are conducted biennially to provide a basis for revising the item content and item weights in the Consumer Price Index. The resultant body of material on expenditures of Canadian families is published and is used widely by business organizations and welfare agencies.

The Retail Prices Section completed the final phase of the 1957 revision program for consumer price indexes with publication of revised indexes for ten regional cities, and initial studies were undertaken in the 1962 revision program. Periodic revision of consumer price indexes at approximately five-year intervals are planned. In the 1957 revision, the time base 1949=100 was retained but items included in the index and their weights were up-dated in accordance with family expenditure patterns based on the 1957 family expenditure survey. In the 1962 revision, items and weights will be based on the 1962 expenditure survey and the time base for the national and city indexes will be changed to 1961. In this connection, re-examination of the boundaries of the population group to which the national index relates, in terms of family types, family income and cities, was completed. The re-examination involved analysis of expenditure patterns revealed by the enlarged 1959 survey which covered all families and individuals in cities of 15,000 population or more. Preliminary analysis of the results of the 1962 monthly surveys of expenditures on food was also undertaken.

In addition to the revision work, a progressive review of retail price survey procedures and techniques was carried out to improve the quality of price data in all retail price indexes. A related project was a one-week conference of regional pricing officers which was held in Ottawa in November. The conference program centred on papers prepared in advance by the pricing officers on problems of specific field operations, and included visits to manufacturers in Montreal and a merchandise display in Ottawa designed to clarify specification and identification techniques.

Two surveys of family expenditures were undertaken by the Consumer Expenditures Section, *viz.*, a survey of detailed food expenditures for which weekly diary-type reporting was employed and a survey of the complete family budget in 1962 by a one-time recall interview of the individual family. The field interviews were completed by regional office enumerators. The surveys were designed to provide data for use in revision of the Consumer Price Index and, therefore, were restricted to families of specified size and income in seven major cities. Returns from the food survey were processed monthly throughout 1962 for conventional mechanical tabulation and initial tables became available. For the complete budget survey, a major development was the decision to process and tabulate returns by electronic computer. Although a relatively small number of records was involved, it was considered that the complexity and volume of data on each schedule warranted the change-over to computer processing. Considerable time was invested in compiling the instructions necessary for the transfer of editing routines to the machine and in formulating requests for tabulations in sufficient detail to facilitate speedy publication. It is hoped that this survey will be marked by a substantial improvement in timeliness of published results.

Preliminary release of the previous 1959 survey results was made in May 1962, and the final publication, *Urban Family Expenditure, 1959*, was released

in March 1963. Analyses of unpublished 1959 tabulations proceeded during the year under review and a considerable volume of material was made available to users in answer to special requests.

Apart from the established statistical program, primary emphasis in the Wholesale Prices Section was devoted to advancing the developmental work on industry output and input price indexes which was described in the previous Annual Report of the Dominion Bureau of Statistics. Preliminary steps, including planning and a limited amount of assembling of base weighting data, were taken in connection with rebasing the Industry Selling Price Indexes from a 1956 to a 1961 price reference base.

Increased attention was given to the matter of compensating for "quality" change in price index construction and ideas were exchanged with United States and British authorities. Also, a paper touching on theoretical and practical considerations in this aspect of price indexes was prepared and presented to the Bureau's extra-curricular seminar on productivity measurement.

A start was made on an experimental program concerned with possible systematic interdependence of price behaviour among industries and some tests were made relating to time lags between prices of new orders and shipments.

The Farm Prices Section prepared and published regularly a wide range of price indexes, weekly and monthly, relating to commodities and services used by farmers and farm families, Canadian farm products at terminal markets, sensitive industrial materials, residential and non-residential building materials, common and preferred stocks, and highway construction. Revision and further development of most of the indexes continued.

Initial studies in a comprehensive revision of the Price Index Numbers of Commodities and Services Used by Farmers were begun as some of the prerequisite data from the 1958 Farm Income and Expenditure Survey became available during the year. Variations in farm expense patterns among groups and sub-groups of farms (as classified in the Standard Industrial Classification) are being examined to determine the nature and scope of an adequate system of indexes of prices paid by farmers.

Revised Security Price Indexes on the base 1956=100 were published in June. The major developments in the revised indexes were the classification of stocks according to the Standard Industrial Classification and the use of constant weights for index groups representing each industry. Further development was achieved on the new series Price Indexes of Highway Construction with completion of current-weighted indexes, and a comprehensive reference paper describing in detail both the base-weighted and current-weighted indexes was published in September. In the continuing development of price indexes relating to the cost of construction of electric generating, transmission and distribution facilities, a large volume of cost data supplied by private and public utilities is being analysed and further progress has been made on the price collection and evaluation phase of the project.

In keeping with the requirements of the Canadian Government's foreign service allowance system, the International Prices Section analysed, during the course of the year, living cost surveys from numerous foreign cities to determine appropriate allowance levels for civil servants stationed abroad. In connection with this work the officer in charge of the Section visited national statistical authorities and Canadian overseas staff in many countries of Africa and the Middle East. During the year under review, retail food cost information was received from about 250 isolated locations within Canada. The results of analysis of these reports will be used to assist in the review of Isolation Allowance levels paid to federal civil servants stationed in remote areas. In the same context, the Section has also been studying domestic fuel and utility cost data received from a number of isolated communities.

PUBLIC FINANCE AND TRANSPORTATION DIVISION

This Division consists of five sections: Government Employment and Payrolls, Public Finance, Public Utilities, Research Projects and Transportation. Its function is to collect and publish data on the financial structure of the three levels of government in Canada with details on numbers employed and payrolls, the performance and financial condition of rail, road, water and air transport, the financial and operational aspects of electric power, gas and oil pipelines, and financial and operational information concerning the various communications media.

During the year, the Government Employment and Payrolls Section prepared, in addition to its regular publications, a number of tabulations for the Pay Research Bureau of the Civil Service Commission. Responsibility for the production of manpower statistics to be used by the Treasury Board and other central agencies of the Federal Government was assigned to this Section as were the surveys of casual and certified sick leave taken by government employees.

The development of computer programming applications to the survey of Federal Government employment commenced with the conversion of punch card records to computer tape and the production of a set of summary cards. Need for a centralized control over all records involving government employees as well as revisions in the system of recording employee and position changes were discussed with Civil Service Commission officers.

Special tabulations involving data on employees and former employees of the Government of Canada, covering such details as deductions for pension plans and amounts paid to persons in receipt of superannuation, were prepared for the National Accounts Division of the Bureau and special analyses relating to a limited number of classes of prevailing rate employees were prepared for the Department of Labour.

In the Public Finance Section, considerable progress was made in the initial analysis of provincial government enterprise finances for the years 1958 to 1961. In addition to the Section's regular publications, the first issue of *Financial Statistics of Federal Government Enterprises* for 1958, 1959 and 1960 was released. Data on sales, by stores, were collected from six liquor boards and forwarded to the Industry and Merchandising Division.

This Section provided the Department of Finance with details of certain items to be used in the calculation of the tax equalization payments by the Federal Government to the provinces in the period April 1, 1962 to March 31, 1967, under the Federal-Provincial Fiscal Arrangements Act.

Data on municipal direct and indirect debenture debt and details on the numerous adjustments of Federal Government budgetary revenue and expenditure were supplied to the Bank of Canada. In addition, special compilations on government finances were prepared for the Royal Commission on Banking and Finance, the Royal Commission on Health Services, the Historical Statistics for Canada and the Canadian Tax Foundation.

Discussions with the Department of Finance and other interested agencies were initiated to determine the implications of the recommendation of the Glassco Commission concerning the form of presentation of Federal Budgetary Estimates. Arrangements are being made to collect financial data relating to provincial crop insurance schemes for the Department of Agriculture and other divisions of DBS on a composite reporting form. Receipt of detailed information from the Province of Quebec has improved data on provincial government capital and repair expenditures and other gaps in the various provincial statistical series are expected to be remedied following outlines of scope and coverage prepared for the Quebec Bureau of Statistics. A study of "errors" in the quarterly estimates of government expenditures on goods and services and an analysis of indirect taxes less subsidies were undertaken at the request of the Assistant Dominion Statistician for Statistical Integration.

The Public Utilities Section continued its program to improve the collection and quality of its pipeline transport, electricity, natural gas distribution and communication statistics. The most important development during the year was the inauguration of a program to establish joint collection of oil pipeline monthly statistics involving provincial governments, the National Energy Board and the Dominion Bureau of Statistics. Following meetings with industry a program for the collection of quarterly financial data was inaugurated involving the National Energy Board, the Business Finance Division and the Public Utilities Section. Joint collection in gas utilities was extended to include an integrated joint compilation program between the Section and the provinces.

During the year a program was initiated to review the telephone statistics series. A National Advisory Committee on Telephone Statistics was established in late December. Joint collection arrangements with the Department of Transport and the Board of Broadcast Governors for radio and television statistics were in satisfactory operation during the year. A federal-industry committee was established, known as the National Advisory Committee on Broadcasting Statistics, and chaired by an officer of the Bureau.

The Public Utilities Section was, during the year, involved in two additional committee projects, both *ad hoc* committees of the Interdepartmental Advisory Committee on Energy Statistics and respectively engaged in producing a standard pressure base for reporting of natural gas statistics and in studying revisions of the electric power statistics reporting forms to meet needs of the National Energy Board, Department of Mines and Technical Surveys and the Department of Northern Affairs and National Resources.

In the Transportation Section, further progress was made toward the development of comprehensive transportation statistics. Estimates of intercity ton miles by mode of transport were revised and published in the *DBS Daily Bulletin* of February 4, 1963, and include the actual estimates of water ton miles for the years 1960 and 1961, improvements in the coverage of air freight ton miles and gas pipe line ton miles. Corresponding estimates of intercity passenger miles by mode of transport were also released in a recent issue of the *DBS Daily Bulletin*. Favourable discussions were held with senior representatives of the railway, airline and trucking industries regarding the feasibility of setting up a National Advisory Committee on Transportation Statistics.

The Standard Industrial Classification code numbers for the various transport series were changed to conform with the revised Standard Industrial Classification. Meetings took place with officials of the United States Government concerning a uniform classification of commodities for such purposes as production statistics, imports and exports as well as transportation. As a result, some changes will be made in both the American and Canadian classifications which will enable convertibility from one to the other with about 95 per cent effectiveness. However, in the case of the commodity information contained in the annual report *Railway Freight Traffic*, data will continue to be based on the uniform classification of commodities as prescribed by the Association of American Railroads. The Bureau has, therefore, converted the 1961 commodity data from this report to the Standard Commodity Classification by publishing a special report for distribution to subscribers to the regular publication.

A Committee consisting of representatives of the Canadian National and Canadian Pacific Railways, the Board of Transport Commissioners and the Chief of the Transportation Section as Chairman, was formed to review and revise the "Classification of Railway Employees and their Compensation". Considerable progress was made and all agencies formally adopted the recommended structural changes in this classification.

The 1962 *Civil Aviation* publication was expanded to include information on aircraft fleets, showing a breakdown by fleet ownership, number of engines, categories and weight groups of aircraft. Arrangements are being made with the Department of Transport and the Air Transport Board to obtain the number of passengers and the tonnage of freight carried by foreign air carriers licensed to operate non-scheduled unit toll and charter services between Canada and other countries.

Two new volumes—Part IV and Part V—of the *Shipping Report* were produced. Part IV contains the origin and destination of all foreign and coast-wise cargoes handled at the eight largest Canadian ports; similar data for the seventeen next largest ports are available on request. Part V contains traffic flow data for eight specific commodities which move in large volume by water. In addition, water ton miles covering all domestic shipping and segments of foreign shipping were compiled for the years 1960 and 1961. In co-operation with the Ship Owners and Ship Builders Association, the annual Water Transportation reporting forms were completely redesigned and instructions amended.

A complete review of the Motor Transport Traffic Survey was undertaken with the assistance of the Sampling Consultation Staff. The annual publication *Motor Carrier Freight* was split into two reports in order to improve timeliness. A *Motor Carrier Freight* quarterly report was introduced and a pilot survey covering operators in Ontario was conducted in the third quarter of 1962, with Quebec operators added in the last quarter of the year and the other provinces included in 1963. In the annual *Urban Transit* report, a provincial breakdown was introduced in place of individual company data. Arrangements were made to collect additional information on refrigerated storage facilities in Canada, on an annual and quarterly basis, for the Economics Branch of the Department of Agriculture.

A number of special studies were prepared during the year: an analysis of commercial motor vehicles by motor power and class of operation; an analysis of the motor transport traffic survey to show motor vehicles by model and by province; a study of the results of the motor transport traffic survey in Ontario covering the period 1956-60 for the Automotive Transport Association of Ontario; a similar study for Quebec for the period 1957-61 for the Quebec Trucking Association; and special tabulations for the North Atlantic Ice Patrol Committee, the Port Administration Authorities of Halifax and Saint John, the Quebec Bureau of Statistics and the British Columbia branch of the National Research Council.

SPECIAL SURVEYS DIVISION

Through its eight Regional Offices, the Special Surveys Division is responsible for all field activities of the Dominion Bureau of Statistics. Current information on many topics is obtained by temporary enumerators, working under the supervision of the different Regional Offices, who interview each month a scientifically selected sample of approximately 36,000 households across the country.

Each month questions on labour force activity are asked and the resulting monthly bulletin *The Labour Force* presents details of employment and unemployment for Canada and the five main regions of the country. At the same time, enumerators inquire about rents paid and the information elicited is used to compile the rent components of the Consumer Price Index.

In addition, a variety of other information is obtained from time to time. An annual bulletin entitled *Household Facilities and Equipment* results from special questions asked in May of each year and provides information on the facilities and equipment present in Canadian homes. During 1962 special questions dealt with personal incomes, annual employment patterns and immigration. A monthly food expenditure survey was conducted to obtain from representative families their patterns of food expenditure throughout the year. Some 1,800 families co-operated by keeping a four-week record of their food expenditures. A family expenditure survey was conducted during February and March 1963, in which approximately 1,200 families provided details of their 1962 income and expenditures on accommodation, home furnishings, clothing, personal care, medical care and recreation.

As part of their continuing duties, the Regional Offices collect data on retail prices of commodities for use in compiling the Consumer Price Index. They also maintain, for the convenience of local business firms and others, a file of all current DBS publications. The collection of business reports, which other Divisions of the Bureau have not been able to obtain by mail, is also carried out through these offices. In connection with the 1961 Census of Merchandising and Service Establishments, the Regional Offices were assigned the special task of collecting approximately 25,000 outstanding reports.

During 1962 preparatory work was carried out and detailed information was assembled from the 1961 Census which will permit significant progress during the 1963-64 fiscal year in the redesign of the Labour Force sample of households.

DATA PROCESSING SERVICES

The large-scale processing of statistical data at the Dominion Bureau of Statistics is undertaken by the Tabulating Services Division in conjunction with the Central Programming Staff. The two Divisions work together to improve the processing services of the Bureau using the equipment most suitable for the purpose.

Central Programming Staff

The function of the Central Programming Staff is to provide assistance and direction to subject-matter divisions of the Bureau in assessing the feasibility of processing their data on the electronic computer systems. The review includes alternate data-processing methods with the object of selecting the best method possible for each job. For applications assigned to the computer, the programming staff then writes and tests the programs and, when these are in production, up-dates them to take care of changing data and statistical requirements.

The staff is organized into five teams each headed by a senior programmer assisted by three to five junior programmers. The senior programmer works closely with the subject-matter officers in defining the problem and in outlining and flow-charting the method of processing. Parts of the problem are then assigned to junior programmers who prepare the detailed instructions for the computer. A few programmers work independently on special projects, analysis and development work.

The programming staff works closely with other service and research divisions of the Bureau to develop the most efficient data processing methods for the Bureau as a whole. In particular, the Tabulating Services Division and the programming staff co-operate to produce integrated data processing systems. A case in point is the preparation of programs for the 1401 computer which combines data from several punched card files, performs certain calculations and punches out summary cards in a form easily handled by unit-record equipment.

In the field of statistical integration, the programming staff has offered suggestions for the structure of numeric codes to be appended to standard

classifications, geographic divisions and standard list of respondents. These codes are designed to simplify and speed up data-processing operations, particularly those of the electronic computer.

By the end of March 1963, all programs for processing the 1961 Decennial Census had been completed and tested for agriculture, family, household and housing tabulations and programs for population and labour force tabulations were almost completed. During the year, efforts were concentrated on developing methods and writing programs for income, migration and fertility studies of census data, for quality control of the census data, and to meet demands for data to be used in monographs and other special studies.

As new data requirements arise for programs already in production, these are reviewed and brought up to date. For instance, programs for processing import statistics are constantly changed to handle new classifications and groupings of commodities and changes in ports of entry. Further processing of the yearly pay research program has been transferred to the 1401 computer and additional programs for the 1958 Farm Expenditures and Income Survey have also been written and tested.

During the year, programmers worked with Bureau officers in analysing data requirements and writing programs to process hospital statistics, morbidity, tourist traffic and federal employment data. Analysis and planning for the transfer of principle statistics of the Census of Manufacturing to the electronic computer and for processing the index of production were started. Programs were written to assist in the preparation of the farm mailing list where data from several sources were matched up by the computer and cards punched. These cards were then converted to punched paper tape from which addressograph plates were embossed without further manual intervention. Work on the urban family expenditure survey was also in progress.

In connection with rebasing Bureau statistics to a 1961 base period, the programming staff co-operated with subject-matter divisions in preparing base data for 1961. Employment and payroll base data were calculated and plans for the production of other 1961 base data were in progress. A special project to evaluate the federal superannuation fund for the Department of Insurance was also undertaken.

The Central Programming Staff collaborated with the Tabulating Services Division, Forms Control, and with the Training Officer in preparing and delivering a series of lectures on data processing in the Bureau. The object of the course was to acquaint technical and professional personnel with the data-processing facilities available in the Bureau and with the analysis, planning, review and evaluation necessary to determine the best combination of data-processing methods for a job.

Tabulating Services Division

The subject-matter divisions of the Bureau gather data which form the basis for statistical tables. The Tabulating Services Division provides a service, using a variety of tabulating methods, to process the data reducing it to more manageable form for further analysis. Broadly speaking, there are three main methods of tabulation, and computer processing.

When aggregates only are required involving a minimum of cross-classification, these are produced directly as a clerical operation by means of peg-bar methods of compilation using comptometers and desk calculators. This group, comprising 25 operators, handles a considerable volume, particularly of data where monthly, quarterly and annual tabulations of a repetitive nature constitute a large part of the work. This group also undertakes special projects involving more complicated calculations. During 1962-63 there was a considerable extension of services in this direction.

Next in order of complexity from a tabulation point of view are the many Bureau projects involving more difficult manipulation of the data and a larger number of more complex cross-classifications. For these the Division uses a wide variety of unit record equipment. More than 100 operators record the data from the source documents onto punch cards, about one half of them punching the cards and the other half verifying them, independently, for accuracy. Another group of some 60 operators use other punch card equipment, such as sorters, tabulators, reproducers and collators, to group the punch cards by the various characteristics of the data and to produce in printed form the totals required.

One important feature of punch card tabulation which has been developed to a high degree of efficiency in the Division has been the editing of the data by mechanical means, seeking out inconsistencies which may arise through misinterpretation of instructions and definitions governing the collection of data and through errors in recording answers. Such inconsistencies and errors are detected and corrected before the data are used on the computer where incorrect material could cause halts and re-runs, expensive both in time and money.

To handle the most complex applications, an Electronic Computing Centre was established in 1961 in the Dominion Bureau of Statistics. Although the greater part of the time of the computer has been allocated to the work of the Bureau owing to the needs of the 1961 Census, some of the requirements of other government departments and agencies have been accommodated. Priorities in the use of the equipment are assigned by the Interdepartmental Committee on Electronic Computers. The installation of the Centre consists of an IBM 705 System and an IBM 1401 System, the latter being used principally as an input and output device for the former. However, during the year, the capacity of the IBM 1401 System was increased to permit more extensive handling of complete computer applications, including projects formerly handled on the unit record equipment in a less effective manner.

The application which absorbed most of the computer time during the year under review was the processing of the 1961 Census. The information was recorded on magnetic tape which was then used directly by the computer installation to check out the information and prepare the tabulations. The use of a computer rather than the unit record equipment facilitated the cross-classification of data and improved the quality of statistics. It also meant that the volume of the tabulations was increased beyond that available from any previous census.

For most of the year the computer centre was operated on a three-shift, five-day week basis with some overtime on week-ends. Commencing in March 1963, this was extended to a seven-day week, 24-hour day operation and

plans were made to continue on this basis for at least a year. In addition, arrangements were made to use the facilities of the computer installation in the Taxation Branch of the Department of National Revenue to assist with census work and other Bureau projects.

At the request of the External Aid Office, the Planning Officer in the Division analysed the balance of the tabulation plans for the Census of Ghana. Following recommendations resulting therefrom, the project was reduced to more manageable proportions and a procedure set out for its accomplishment. In February, the Planning Officer left on a three-month assignment to Ghana to assist in getting this phase of the work under way.

During the year, a number of regular projects were re-examined from the point of view of making the most effective use of the equipment available, including the computer installation. As well as projects being exclusively unit record applications or computer applications, it was found that some projects could be completed more effectively by a combination of methods. One of these was the tabulation of statistics relating to tourists formerly accomplished partly on the computer installation and partly on the unit record equipment. A second was the tabulation of the monthly labour force survey and a third, the tabulation of the extensive material requested by the Pay Research Bureau of the Civil Service Commission. It thus appeared profitable to extend this integration of processing methods to a number of other applications.

As in the past, a number of projects were undertaken during the year for other Government departments and agencies on a cost-reimbursement basis under individual agreements; the major special project was the processing of the Sport Fishing and Hunting Survey for the Department of Northern Affairs and National Resources.

ADMINISTRATIVE SERVICES

Under this general heading are found a series of functions serving the Dominion Bureau of Statistics as a whole, including general administration, staff organization, financial control and publications distribution, forms control and office services such as the addressograph unit, composing and drafting units, stenographic pool, supplies, mail and messenger services.

Staff Organization

Arrangements for the maintenance of an effective work force is the function of the Personnel and Organization and Establishment Sections. In carrying out these functions it is necessary to maintain close liaison with the Civil Service Commission on recruitment, pay, promotions, transfer and related matters. Staff training activities, initiated the previous year, were continued.

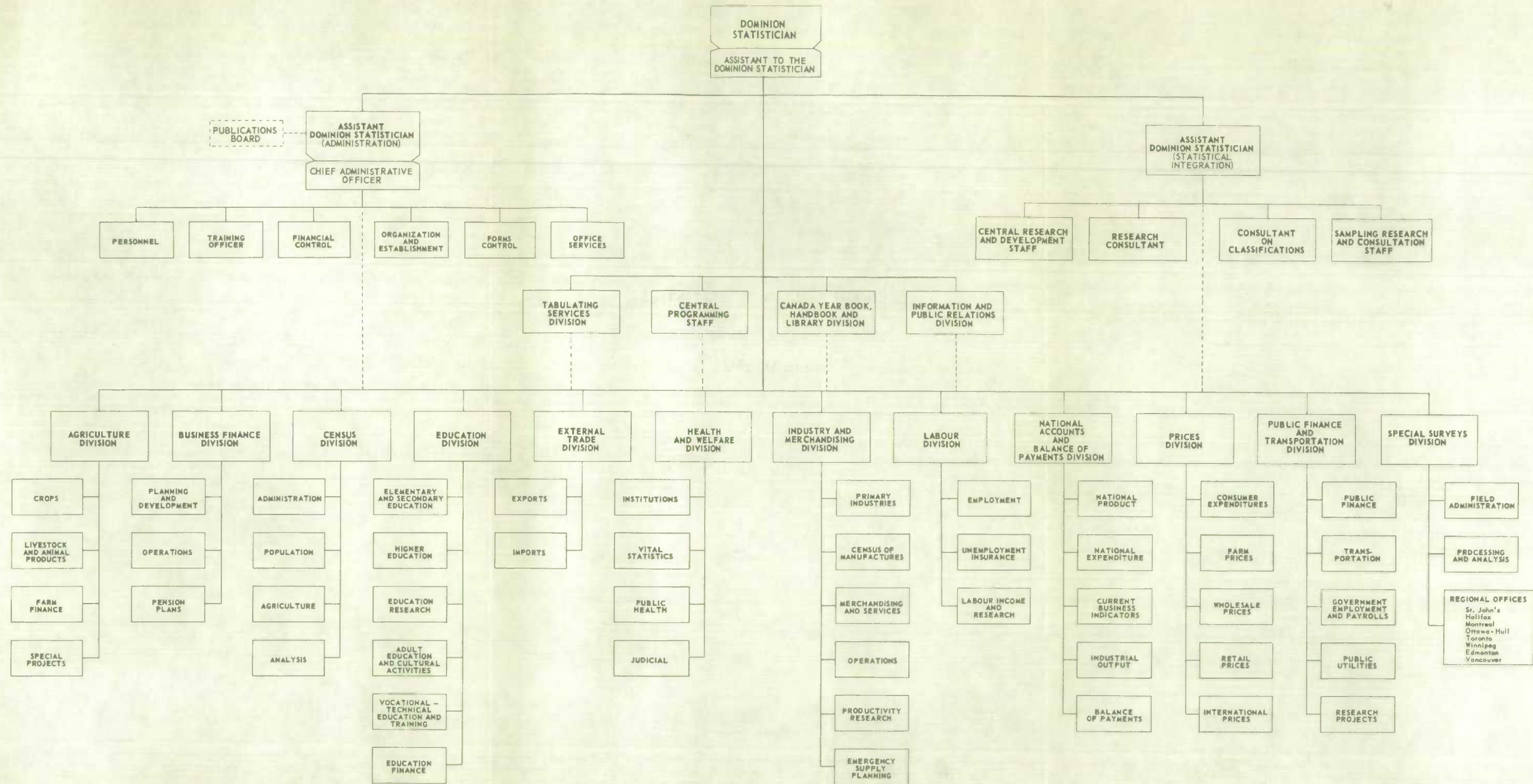
The DBS staff employed on continuing operations at March 31, 1963 numbered 1,797, a decrease of 20 from the number employed on March 31, 1962. Because of the Government's emergency financial measures, no recruitment was permitted during the period June 28, 1962 to January 2, 1963. During

DOMINION BUREAU OF STATISTICS

Chart showing organization

March 31, 1963

DOMINION BUREAU OF STATISTICS
GENERAL ORGANIZATION



the year under review, 16 statisticians and economists were recruited and 11 separated. There were 27 research assistants engaged on summer projects. Throughout the year, 166 promotional competitions were conducted. The 1961 Census temporary staff at Head Office, which numbered 330 on March 31, 1962, was reduced to 279 by March 31, 1963. The establishment authorized for the fiscal year under review was 1,863 positions and 106¾ man-years of casual clerical assistance for continuing operations and 292 man-years for 1961 Census processing.

In order to institute the separate administration of the Corporations and Labour Unions Returns Act, promulgated on January 1, 1963, 52 continuing positions and 2½ man-years casual assistance were assigned to the CALURA establishment. This Act is administered by the Dominion Statistician as an entirely separate organization.

The Health Unit, a branch of the Civil Service Health Division of the Department of National Health and Welfare, continued to provide an occupational nursing service for employees.

Suggestion Awards

During the fiscal year, 46 suggestions from DBS employees were received and evaluated by the Suggestion Award Committee, five of which were granted awards. In addition, 32 suggestions received from other departments of the Government were evaluated as to possible implementation in Bureau operations.

Financial Control

This Section is responsible for the financial operations of the Dominion Bureau of Statistics. These include the preparation of estimates, examining and controlling expenditures, interpretation of financial regulations, compiling cost records, factual reports and the preparation of submissions of a financial order to the Treasury Board.

The volume of work in the Publications Distribution Unit continued to increase during the year as a result of the release of 1961 Census publications and an increase in publicity by the Information and Public Relations Division. Almost 12,000 subscriptions to the 546 DBS publications were serviced involving the distribution of some 1,835,000 individual reports.

Forms Control

Work continued on the simplification, standardization and revision of forms, methods and publications, which resulted in savings of both time and material.

During the year under review, the Forms Control processed 2,800 forms consisting of 7,650 pages, excluding miscellaneous forms required for the 1961 Census. Of these 980 pages were reprints, 5,470 were revisions and 1,200 were designed or redesigned. For use in the 1961 Census of Canada, 188 forms were processed totalling 1,170 pages of which 170 were reprints,

25 pages revised and 975 designed or redesigned. Envelopes numbering 160 were also printed, revised or redesigned, as well as 235 specialty forms printed.

In addition, the Section prepared questionnaires and related forms for the Corporations and Labour Unions Returns Act Administration. Assistance was given in planning a computer feasibility course for professional staff and a work study course for supervisory clerical staff for which an outline specifically tailored to DBS requirements was printed. Preliminary studies toward development of a system of processing codes, based on the Standard Commodity Classification codes, were undertaken to facilitate computer processing of commodity statistics.

Office Services

In the Addressograph Sub-Unit of the Office Services Section, 11,073,805 forms were addressed for the various divisions of the Bureau. In addition, 683,616 plates were embossed, 123,128 plates corrected and 417,572 plates deleted.

The Composing Unit planned, varityped and prepared for printing 12,925 pages of tabular and textual material. In addition, 6,405 hours were devoted to miscellaneous vari-typing of forms. Based on the current general average of 1.5 hours per page, this represents a theoretical production of 4,270 pages of publication, bringing the Unit's total production to 17,195 pages.

The Drafting Unit completed 1,896 economic charts, maps, diagrams and various illustrations, in addition to the ruling of tables for the Composing Unit which totalled 9,456.

The outgoing mail numbered 19,923 bags, containing approximately 6,031,655 pieces of mail.

In addition to supplying stenographic and typing services to the various Divisions of the Bureau, the Stenographic Pool provided members of the staff on a loan basis to Divisions for 92 days. A total of 22,616 pages were typed of which 11,396 were photocopy and paper master, and 11,220 were drafts, statements and lists. Letters transcribed from dictation numbered 2,239. As well as the foregoing, 96,736 forms, envelopes and form letters were completed and prepared for mailing.

During the period under review, 6,363 requisitions for contact and Xerox duplicating were received and completed involving a total of 227,378 prints.

The Supplies Sub-Unit received from the Department of Public Printing and Stationery materials for a value of \$302,778. Requisitions numbering 400 were completed for goods and services for which the Department of Public Works is responsible.

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