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DOMINION BUREAU OF STATISTICS

*Annual
Report*

For the Fiscal Year ended March 31, 1966

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CANADA

ANNUAL REPORT
OF THE
DOMINION BUREAU OF STATISTICS

FOR THE FISCAL YEAR
ENDED MARCH 31, 1966

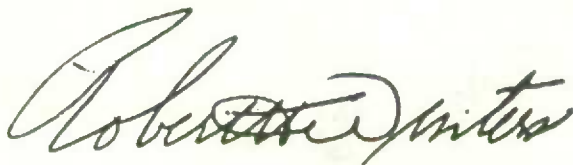
June 1966
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Price: 40 cents

*To His Excellency 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, 1966.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Robert D. Mitchell". The signature is fluid and cursive, with the first name "Robert" being more prominent and the last name "Mitchell" following in a similar style.

Minister of Trade and Commerce,

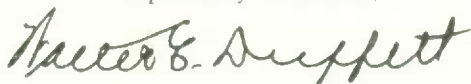
Ottawa, Canada
June 1966.

THE HONOURABLE ROBERT H. WINTERS
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, 1966.

Respectfully submitted,

A handwritten signature in dark ink, reading "Maurice E. Duffett". The signature is written in a cursive style with a large initial 'M' and a long, sweeping underline.

Dominion Statistician.

Ottawa, Canada
June 1966.

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.

The year under review saw a continuation of the growth in demand for statistical services which was a feature of the preceding three years. New federal government agencies such as ARDA, the Area Development Agency, the Special Planning Secretariat in the Privy Council, and the Economic Council of Canada have continued to press for more data, including both broad national aggregative figures and information on regions and sub-provincial areas. Royal Commissions and other investigating bodies have sought and obtained much detailed information, particularly in the form of breakdowns of 1961 census material. Statistical requirements of provincial governments continue to grow and much attention was devoted to their needs by special tabulations and by joint arrangements for collection of statistics from business firms. The newly-established Regional Statistics and Analysis Staff was active in maintaining provincial liaison.

Among other measures taken to meet these growing demands was an increase in the number of positions on the establishment, which increased by 193 positions during the year. Recruitment of professional staff, which is increasingly important in the newer and more sophisticated types of project, continues to be difficult. It seems that the supply of economists and statisticians from Canadian universities is well below the current and prospective need for such persons throughout the economy. Some recruits are being obtained from abroad, but the number of suitable candidates is not very large.

The growth in the staff over several years, the increased efforts needed in recruitment and a significant delegation to DBS of functions formerly the responsibility of the Civil Service Commission and Treasury Board, have all placed an additional burden on the relatively small personnel and administrative staff of the agency. These tendencies seem likely to increase further and some of the increase in staff resources has been used to strengthen the administrative structure of the organization.

The addition of personnel is of course by no means the only method by which increased statistical output can be secured. Increased efficiency through the use of computers, sophisticated mathematical techniques and improved clerical procedures represents a promising avenue of attack which is being increasingly exploited. The existing computer equipment is gradually being freed from the task of tabulating the 1961 Census, which has occupied much of its capacity, and existing DBS survey operations are being computerized with savings in staff and improved quality and detail. The computer resources continued to be used virtually at capacity – 24 hours a day during a 5-day week, with considerable overtime at week-ends. A systematic study is under way to establish long-run computer requirements in DBS as the basis for plans to replace some of the existing equipment which is becoming obsolete. Apart from better tabulation methods, a good deal can be achieved

by the general redesign of some existing surveys. The monthly survey of the labour force, the most expensive single survey in the DBS program (apart from the Census) was redesigned during the year in order to provide, at some reduction in cost, a degree of detail and accuracy which would have cost about double the amount with the previous survey design. Opportunities of this magnitude are exceptional but similar work is proceeding on a variety of other surveys.

Increased attention was directed during the year to the use of administrative statistics as a relatively economical method of obtaining information about persons. Provincial authorities, especially in the field of education, are also interested in these possibilities.

Planning and organization, which commenced three years ago, for the small-scale Census of Population, Agriculture and Merchandising to be conducted in June 1966, are now complete. This Census will be carried out in all of Canada but on a less comprehensive basis than the Decennial Census of 1961. The decision to convert the Census of Merchandising and Service Trades from a decennial to a quinquennial census is of major importance to measurement in this large and growing range of activities. In addition to providing more up-to-date information, it will improve the results of current samples by providing a new benchmark and a new sampling frame every five years instead of every ten.

An organizational change of particular interest is the modification of the traditional practice of physical centralization of statistics, by the creation of a DBS "satellite" unit of some 50 positions within the Department of Transport to deal with air transport statistics. It is believed that physical proximity to the Department will ensure effective support to its work, while supervision by DBS will promote statistical efficiency and consistency.

The Corporations and Labour Unions Returns Act Administration, which is formally separate from DBS but in practice an integral part of the organization, is not covered in this report because it is the subject of a special comprehensive report, the first of which appeared during 1965. However, it is to be noted that during the year the CALURA administration continued to become more effectively integrated into the national statistical system and is preparing to assume responsibility for the corporation portion of *Taxation Statistics* formerly published by the Department of National Revenue.

It will be evident from this report that 1965-1966 was a year of unusually heavy pressure on the staff of DBS, and in this situation the skill, loyalty and devotion of the staff have been of vital importance.

CENTRAL STAFFS

Under this heading the activities of the following staffs are summarised: Central Classifications; Central Research and Development; Regional Statistics and Analysis; and Sampling and Survey Research.

Central Classifications Staff

Development of the Central DBS List of Companies and Establishments has continued. The Central List numbering system has now been extended to financial statistics, the motor transport survey, communications statistics surveys, pensions statistics surveys and the monthly shipments and inventories survey. Investigation of cases of inconsistency in the handling of companies and establishments on DBS surveys was transferred to the Central List staff early in 1965. During the year the number of outstanding "problem cases" was reduced significantly.

An operational manual has been drafted outlining the procedures followed in setting up and maintaining the Central List and its relationship to DBS survey lists. It is expected that the manual will enhance the usefulness of the Central List by increasing the Bureau's understanding of its operations and assisting in staff training.

The co-operative arrangement continues with the Unemployment Insurance Commission whereby UIC local offices collect a Nature of Business Report from all new registrants. This has proven to be the major source of information necessary to keep DBS survey lists up-to-date and is the basis of the semi-annual publication *New Manufacturing Establishments in Canada*.

Division 9 of the Standard Industrial Classification (Finance, Insurance and Real Estate) has been expanded from 5 classes to 29 classes during the year, reflecting the increased demand for more detailed financial statistics. The new classes will be implemented in financial surveys immediately, and then reviewed in the light of experience.

During the past year preliminary steps have been taken to effect the integration of establishment and company statistics. As a first step towards integrated data, the Central Classifications Staff has co-operated with the Business Finance Division on investigations of the interrelationships of companies and their respective establishments. It is expected that this project will be completed about the middle of 1966. The staff has also initiated a program which has for its goal the tabulation of employment and related data on a company and establishment basis. This is a pilot project in the area of integrated statistics and will serve as a guide when other series in the Bureau are investigated.

A Standard Geographical Classification, derived from the 1961 Census and providing code numbers for provinces, counties or census divisions, rural and urban municipalities, and greater cities and census metropolitan areas, has been adopted as the standard for areal statistics produced by DBS. An interim edition of the Standard Geographical Classification, complete with maps and a supplement with codes for foreign countries, has been issued and a final edition is expected shortly. It is planned that the Central List Staff will assist in the implementation of the Standard Geographical Classification. As a preliminary step in this direction members of the staff have worked with the Industry Division in the examination and revision of geographical codes assigned to all Census of Manufactures returns for the years 1961, 1962 and 1963. Currently, standard geographical codes are being assigned to all new businesses.

The implementation of the Standard Commodity Classification is continuing, notably for manufacturing and transportation statistics. The first draft of an expanded version of the Standard Commodity Classification for coding materials and supplies used, as well as commodities shipped by manufacturing establishments, was circulated during the year. A second draft is now in preparation. The first edition of a convertibility computer tape linking the United States Standard Transportation Commodity Code, the Canadian Standard Commodity Classification and a list of freight items to be reported by Canadian railways, has been developed in co-operation with the CNR and CPR and is now under revision. It is expected that 1966 railway freight statistics will be available on both the new and old bases. Some work was also done during the year on a Standard Classification of Services to supplement the Standard Commodity Classification. Such a classification will facilitate collecting and assembling data on total production of and expenditures for goods and services, including service inputs and outputs of different industries.

The increasingly important field of Occupational Classification has received considerable attention during the year. The Director of the Central Classifications Staff was seconded to the International Labour Office in Geneva for six months to engage in a revision of the International Standard Classification of Occupations. In co-operation with the Department of Manpower and Immigration a project is now under way to develop a Canadian Standard Classification and Dictionary of Occupations. This is a major undertaking and will result in a classification suitable for statistical surveys including the Census; manpower analysis; operational programs such as employment placement, vocational training and immigration; and wage analysis. It is planned that the classification structure will be available for use in the 1971 Population Census.

Central Research and Development Staff

An econometrics group was established during the year as part of the Central Research and Development Staff. The functions of this group are to carry out research requiring the application of econometric methods to problems associated with the production or analysis of statistics and to provide a consultative service to other divisions of the Bureau. During the year under review, projects were undertaken or consultation services provided in the areas of retail price statistics, productivity statistics, labour statistics, industrial output statistics, retail trade statistics, national accounts, the annual census of manufacturing, vital statistics, demographic analysis and projections, and hospital statistics, all in close co-operation with personnel of the divisions concerned. Work was also carried out in connection with a continuing program of research on methods of seasonal adjustment. In co-operation with the Central Programming Staff, considerable effort was devoted to the further development and application of computer techniques to replace various "work-sheet" calculations hitherto carried out on desk calculators in various parts of the Bureau. One member of the group participated on a part-time basis in the research program of the Economic Council of Canada.

A broader set of input-output tables is now under construction for 1961 following extensive modifications of the original plans during 1965. The modifications, occasioned by recent theoretical developments, have laid the foundation of an expanded and more versatile input-output program. During the past year continuing attention was given to furthering commodity flow studies with particular emphasis on the assembly of commodity balance data. Work in this area will be continuing at an accelerated pace during the coming year. Similarly, progress continued to be made in the studies to determine the use of services by goods-producing industries and the appropriate investment income applicable to these industries. The above has required the reconciliation and co-ordination of various company and establishment statistics with the aim of continually improving the quality of DBS data. Special attention has been given to studies of the construction, transportation and service industries. The construction study provided data on own account and contract construction by industry. The transportation study is continuing to yield estimates of the total transportation services involved in moving aggregated groups of commodities by different means of transportation. The service study examined selected service industries to determine their commodity inputs. Further work will be undertaken in these areas during the coming year.

Discussions were held with various branches of the federal Department of Industry to provide them with information on the uses of input-output tables and to discuss how the detail in the 1961 table could be rearranged to facilitate their requirements. Staff members of the Department of Industry have agreed to provide to the input-output staff technical knowledge that will be useful in completing the 1961 tables.

Substantial work was carried out during the year on the content and design of the financial flow accounts. Decisions have been made on the detail of sectors and categories to be published. During the year assistance was given to other DBS divisions in the planning and development of surveys covering quarterly financial statistics. Arrangements were also made with the Bank of Canada, the Central Mortgage and Housing Corporation and other government departments for DBS to receive financial information obtained by them in the course of administrative procedures or special surveys. A workshop on financial statistics which concentrated on operational problems was set up during the year and selected problems on concepts, methods and sources were discussed during a seminar which was held at regular intervals.

The annual reports submitted by the Business Finance Division, the Governments and Transportation Division and the National Accounts and Balance of Payments Division should be read to complete the picture of developments in the area of financial statistics. These Divisions provide most of the basic material used in the financial flow accounts.

A report has been completed on the results of the 1964 Survey of Consumer Finances which collected data on consumer assets and liabilities, as well as income, and which included a special questionnaire on stock ownership. Preliminary income data from this survey were released in the fall of 1965, and the main report entitled *Incomes, Assets and Indebtedness of Non-Farm Families in Canada, 1963* will be released in the spring of 1966.

Another survey to collect income data for 1965 was carried out in March-April 1966. This survey was a subsample of the labour force survey and the first income survey to consist of a sample of all households, including farm households. All previous income survey statistics were restricted to non-farm families and individuals. If the data collected from farm households are satisfactory, income estimates will be published for all families in future. Some information is also being collected on the characteristics of unincorporated businesses.

A great deal of work has been carried out on the development of income statistics from the income data collected on the 1951, 1954, 1957, 1959 and 1961 income surveys adjusted for changes in prices. Consideration is being given to the publication of a special historical report on income changes in the family income distribution between 1951 and either 1961 or 1965.

The two remaining census reports on income, for Volume IV of the 1961 Census publications, were released in 1965. In addition, the "Introduction to Volume IV" and the review article on incomes for Volume VII were completed and will be published in mid-1966. This will complete the publication of the main census volume reports on income. Two special reports – one on income by census tracts and one on earnings by occupations for each province – were also published in 1965. A number of other special reports containing census income statistics on topics such as earnings by industry, family income statistics on an economic family basis, and family income by size of family by county have been completed and will be released in the spring and summer of 1966. Publication of all reports containing census income data will be completed by the end of the summer of 1966.

Work has proceeded on a monograph on personal income, seven chapters of which have been completed as well as some sections of the appendix. Two of the chapters on earnings and returns to education were released in a DBS report. Another chapter was presented as a paper at the Canadian Conference on Aging in a study prepared jointly with the Labour Division on *The Economic Status of the Aging*. Some of the material from a chapter on low income families was distributed as a paper at the Federal-Provincial Conference on Poverty in December 1965. Thus a considerable portion of the monograph material completed in 1966 was made available for public use through these papers. It is hoped to complete the monograph in 1966. Some limited work was done on the problems of the quality of census data and census concepts on personal income, and it is hoped to have all the projects dealing with these topics under way by the summer of 1966 and completed within a year. A substantial amount of consultative assistance was given to agencies and organizations such as the Special Planning Secretariat, the Canadian Welfare Council and the Area Development Agency of the Department of Industry. Preliminary planning of a long-run program of income and related statistics has been started and in the coming year the details of the program will be developed.

A project was commenced designed to improve the projection of trends in the fertility component of population change, and work is in progress on a computer program for population projections. Work on a census monograph on

internal migration has continued. A census report on population fertility and one on population mobility has been published. A paper has been prepared on *Population Trends in Canada* and one on *Internal Migration and the Family Cycle*.

Regional Statistics and Analysis Staff

During the year, a considerable amount of time was spent on matters relating to staff recruitment and organisation as well as a substantial amount of consulting, liaison and facilitating services carried out. Most of the provincial capitals were visited for informal discussions with provincial government statisticians and economists concerning their present and potential statistical requirements. In co-operation with other DBS divisions, a substantial amount of time was devoted to the organization and implementation of a pilot labour force survey in Quebec, at the request of the Quebec Bureau of Statistics. Assistance was provided in connection with an ARDA-sponsored, socio-economic study in the Gaspé region. Consultation services and information on *ad hoc* problems were provided to officials from various provincial government departments and several federal government departments. Detailed statistical studies were prepared, on request, for a number of towns and counties. Work was commenced on a bibliography of information relating to regional statistics and work is in progress on a location-specific catalogue of statistics and a county-city handbook, in collaboration with other DBS divisions. Staff members participated in the work of a number of interdepartmental committees dealing with regional and small area statistics and various subcommittees of the Federal-Provincial Conference on Economic Statistics.

Sampling and Survey Research Staff

In order to facilitate effective liaison with subject-matter divisions, some adjustments were made during the year in the organisation of the staff. Three separate survey methods groups have been established, each headed by a co-ordinator. Each of these groups has certain designated subject-matter divisions as its area of activity. The function of each is to provide regular consulting services and, where necessary, make recommendations to the Director concerned on ways to improve the efficiency of the programs conducted by his division. This function involves: the investigation of up-to-date methods and techniques and their application to the programs carried out by the division, such as maintenance and quality control of survey frames, lists and maps; the design of sampling procedures where applicable; methods of data collection; processing (e.g. editing, imputations and quality control); estimation and evaluation of reliability (sampling and response errors); research concerning the contribution of the different phases of the programs to the overall cost on the one hand and the overall reliability on the other hand; and the promotion of the exchange of survey experience and methods between the divisions concerned. In addition to these subject-matter oriented activities, the Sampling and Survey Research Staff will continue to carry out staff activities not immediately related to subject-matter statistical work.

The redesign of the Labour Force Survey, an operation carried out jointly with the Special Surveys Division, has been finished. The new sample design is now in force throughout Canada. A complete description of the

methods used in the redesign was published under the title *Methodology of the Canadian Labour Force Survey*. The sampling variability of some 30 characteristics are calculated and issued every month, along with the sampling variability of estimated differences. A computer program was written by the Central Programming Staff based on specifications prepared by the Sampling and Survey Research Staff to calculate the components of sampling variability which can be ascribed to different stages of sampling. Work is well under way on a system of comprehensive controls designed to signal the deterioration of the sample if and where it occurs. The system will include a framework for more detailed analysis of enumerators' performance and field costs. The programming work is almost finished on an alternative method of estimation which would utilize the previous month's information in addition to the current information and thus reduce the sampling variability of the estimates without increasing the sample size. The issuing of a series of quarterly tables, based on the results of a re-enumeration survey conducted by supervisors, has begun. The purpose of these tables is to shed light on the response errors in the Labour Force Survey.

Work is on schedule on a program to analyse the coverage and content errors of the 1966 Censuses of Population and Agriculture. This program consists of three projects. The first of these will provide national and regional estimates of under-enumeration in the Census for rural, urban and metropolitan areas and for some age-sex groups. It is based on a sample of persons selected from 1961 Census records, supplemented by a sample of persons selected from other lists, e.g. a list of immigrants and birth records in the period 1961-66. The project consists of locating the current address of each person in the sample (approximately 25,000 persons) and then searching the 1966 Census records to ascertain if these persons were enumerated in the 1966 Census. The second project consists of matching approximately half of the households enumerated in the May 1966 Labour Force Survey with the 1966 Census records. This project is designed to provide estimates of under- and over-enumeration of households in the Census, as well as estimates of content error. The third project is a quality check of the Census of Agriculture. It is based on the enumeration of a sample of area segments, and farms within these segments, by specially trained enumerators using special detailed questionnaires and the comparison of the results of this enumeration with the results of the Census of Agriculture.

In collaboration with the Census Division and the Special Surveys Division work has begun on the planning of test censuses in the years between 1966 and 1971 with the purpose of experimenting with alternative methods of enumeration to be used in the 1971 Census.

In co-operation with the Labour and Central Programming Divisions, work has continued on the monthly employment survey. This survey is well on the way to becoming a completely computerized operation. The preparation of the estimates from the completed returns, the various procedures which update the sampling frame, the selection and control of the rotation of the sample, the printing of address labels and the control of the mailing operation will all be handled by computers.

In collaboration with the Governments and Transportation Division, the sample selection procedures for the Motor Transport Traffic Survey are being revised. In one province the new method is now operational and takes advantage of the fact that vehicle registrations are available on magnetic tapes in that province. The new procedures will be implemented in a number of other provinces which are in the process of transferring their registration records to tape.

One of the important processing operations during the 1966 Census will be the transfer of enumeration schedules to tape. This operation will be automatic and will be handled by a document reader. A quality control plan was devised for the operation of the document reader to reduce the number of errors attributable to the machine during the processing of the 1966 Census documents.

Data collected on goods brought into Canada by tourists have, up till now, been collected and processed on a 100% basis. In co-operation with the External Trade Division a sample design was prepared with the purpose of selecting a sample of tourist exemption forms and reduce thereby the processing load associated with the tourist exemptions survey.

Work is under way on the development of a general analysis and sample selection computer program which will perform most of the calculations and analyses which statisticians usually perform prior to a decision on the nature of the sample design. The program is designed to be used for the more routine types of sampling consultation problems.

Consultation services were provided on a large number of smaller problems and projects involving most of the divisions of the Bureau, as well as several other federal and provincial government departments. Extensive consultation service was provided the Quebec Bureau of Statistics in the planning and conduct of a pilot labour force survey. Another major consulting activity was carried out for the Government of Trinidad and Tobago involving the design of a continuing survey of business establishments in those Islands. Consulting services were provided for provincial authorities in Prince Edward Island and Nova Scotia in respect of surveys of tourism in those provinces.

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. 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 farm sample surveys (annual, monthly or seasonal) from which are derived forecasts and estimates of the acreage and production of field, fruit

and vegetable 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.

The publication program includes timely commodity reports on production, stocks and prices of farm products, farm receipts and expenditures, value and volume of farm production, farm wage rates, and indexes of farm prices.

A federal Interdepartmental Committee, with commodity subcommittees, and an annual Federal-Provincial Conference on Agricultural Statistics facilitate the co-ordination of the statistical program. The Federal-Provincial Conference held in February, 1966 was devoted primarily to a review of the crop reporting program, including new uses for data and new methods of collection and processing.

The general program for field and horticulture crop reporting is well established in Canada but, because of the rapidly changing farm structure, sampling and reporting methods must be continually up-dated. The increasing size and specialization of on-farm production units places a heavy burden on the long-established mail questionnaire sampling techniques. Whereas a general purpose sample was adequate to generate estimates for most field crops when the bulk of the farms were relatively homogeneous with respect to production patterns, the modern trend makes it essential that different sampling methods be developed for many individual commodities.

To meet some of these needs, an intensive program to increase the size of the crop correspondent sample in Quebec and Ontario has been carried out over the past three seasons. The goals with respect to size and distribution of the sample have now been largely attained. Special sampling frames have been developed in co-operation with provincial departments for some commodities such as potatoes in Quebec and Alberta, and winter wheat and dry beans in Ontario. An experimental program to test the feasibility of generating yield estimates for winter wheat by actual counts of wheat plants in sample plots was started in Kent County of Ontario in 1965. A study of fertilizer use by regions in the Prairie Provinces and forecasts of intentions to use fertilizer was undertaken in 1965. Research was undertaken concerning the feasibility of changing some field crops from a seeded to a harvested area basis. Considerable work was carried out to organize the statistics pertaining to Canadian edible oilseeds. These are now being published regularly in the *Coarse Grains Quarterly*.

A number of projects to improve the accuracy and timeliness of the statistics pertaining to fruit and vegetable crops were carried forward or instituted in 1965. During the summer of 1965, the second year of counts of sour cherries and processing peaches on sample selected trees and branches in the Niagara District of Ontario was completed. Tentative estimates of the number of mature fruit on the trees prior to harvest were prepared and the results published. Arrangements were made to increase the sample size in

1966 and to have the results of these surveys incorporated into the regular crop estimating program. Preliminary studies on developing a sample count estimating program for grapes were carried out and limited field testing will be initiated in 1966.

A new survey of processors was introduced to obtain data on harvested acreages and tonnages processed for the principal canning crops. This program was carried out in November and the service should provide a valuable starting point for earlier vegetable crop estimates in the future. A mail questionnaire survey of the mushroom industry was initiated in 1965; the greenhouse and nursery stock questionnaires were revised and the mailing lists reviewed with the co-operation of the industry at their request. An early honey crop estimate based on a survey of large beekeepers was carried out and the results released in August.

The regular operating program of the Livestock Section included the monthly reports on the output of dairy factory products, fluid milk sales, estimates of production and farm value of milk and eggs, and on stocks of the principal food commodities held in storage; quarterly reports on the number of pigs on farms and sows to farrow forecasts; semi-annual estimates of other livestock and poultry on farms, annual estimates of meat and wool production and disappearance. Annual reports on dairy, livestock, poultry and eggs, and also on fur farm statistics, cover production, trade, consumption, and other related data relevant to these areas of activity. In this connection it may be mentioned that work on the *Handbook of Livestock Statistics* has reached the final stages and should be completed early in 1966.

A more detailed analysis on the results of the questions dealing with cattle on feed was made. These questions dealt with inventory numbers and marketing intentions and were first added to the semi-annual livestock survey at June 1, 1964. Results look promising, but no estimates can be made until the 1966 Census of Agriculture provides a benchmark. It is hoped to make this a survey of its own in the near future, resources permitting.

More research was done on improving the estimates of fluid milk sales and, beginning with January 1965, data published in the monthly publication *Fluid Milk Sales* was restricted to commercial sales of milk and cream only. Detail volume sales for specified markets and for nine provinces of Canada, not including Newfoundland, are now published for the different kinds of milk and cream, as well as fluid by-products.

Several meetings were held between officials of the Dominion Bureau of Statistics and the Statistical Committee of the Canadian Food Processors Association during 1965. As a result of these meetings, a new monthly survey of manufacturers or processors of frozen vegetables will be initiated in 1966 which will cover cold storage holdings of frozen vegetables intended for remanufacture (not to be confused with inventories held for repackaging). In response to strong demand by industry, a small pilot survey was undertaken to determine the content of the category "Other Vegetables" as reported in cold storage statistics. There is the possibility that the more important items in this category may be separated out in the future.

The year 1965 also saw the introduction of a balance sheet approach as a check on the monthly estimates of laying hens. Previously this was only done at the end of each year. Efforts are continuing to have complete coverage of the large enterprises for broilers, layers, turkeys, geese and ducks.

The Farm Finance Section conducted its regular semi-annual farm surveys of crop acreages, livestock numbers and disposition, farm woodlot production and farm wages. Additional surveys covered monthly farm prices and seasonal farm wage rates. Estimates were prepared and published for: indexes of farm prices and production; farm cash receipts and net income from farming operations; farm wage rates; farm capital; and the value of total agricultural production. During the year, the large-scale revisions of the estimates of the farm income and expenses were continued, and it is expected they will be completed and published during the spring months.

Arrangements were completed whereby eight of the larger farm machinery companies have agreed to supply the Bureau each year with information concerning the amount of credit they extend to farmers for the purchase of farm machinery and the amount outstanding at the end of each year. This covers only credit extended by the companies themselves and does not include the credit provided by dealers on their own account.

Plans were made to include on the 1966 Census quality check questionnaire some questions concerning off-farm income received by farm operators and their family members. The sample to be used consists of about 4,000 farms and will provide data on a national and regional basis. This will provide the first opportunity to assess the contribution of off-farm income to total income of farmers since 1958.

A major research report, under the title *Distribution of Resources, Income and Expenditures in the Agricultural Sector*, was prepared with direct assistance from the Economics Branch, Canada Department of Agriculture. This report provides data which indicate the income from farm and non-farm activities for geographic regions and economic classes of agricultural holdings. It also includes data on the level and distribution of income from farm and off-farm sources for the main product types of farms. Differences in farm operating expenses and resource combinations associated with product types and economic classes of farm holdings are described for geographic regions. Data on the age and education of farm operators are provided for economic classes of farm holdings within geographic regions. Throughout the report, interpretation and analysis of the data is undertaken to assist policy-makers, farm organizations and others in assessing income problems in the agricultural sector and the structural framework within which these problems occur.

Another report released was titled *Motor Vehicles and Power Machinery on Farms: Numbers, Values and Operating Expenses*. It consists mainly of detailed statistical tables, accompanied by the essential descriptive and explanatory material in the text. This report is intended to serve as a handbook or reference for users of statistical data, and contains only a minimum of data analysis and interpretation. In general, the tables provide the aggregates and the numbers of farms reporting for the numbers, values,

operation and operating expenses for farm machinery and equipment, along with other selected items which are relevant for analysis and interpretation of the use and operation of machinery on farms.

The 1958 Farm Income and Expenditure Survey continues to provide data which is not available from other sources in the form and detail desired for research purposes. During the past year, several statistical tables were compiled from the files of computer tabulations in response to requests for information from universities, research institutes and farm organizations.

Plans are being made to produce a new set of farm mailing lists using information obtained from questionnaires completed in the 1966 Census of Agriculture. Basic to this project is the master tape file required for computer processing of the farm mailing lists. Data specified for storage on the master tape file consist of codes for identification of the farm, name and mailing address of the farm operator, crop acreages, livestock and poultry numbers, and other selected characteristics of the farm. In addition to production of the farm mailing lists, the master tape file will be available for the preparation of lists and classifications of farms for special surveys, and for research projects related to sampling and survey methods.

The feasibility of a new system for addressing survey schedules is under investigation. In applying this system, addresses are printed by the computer on continuous fan-fold paper and are then transferred by a heat process to the survey schedules. Consequently, the production, storage and maintenance of over 400,000 addressograph plates could be eliminated.

BUSINESS FINANCE DIVISION

The main function of the Business Finance Division is the collection and analysis of data and the publication of reports on profits, assets and liabilities, capital expenditures, research and development expenditures, cheques cashed, commercial failures, construction, housing and building permits. The Division also participates in the development of special studies on the flow of funds between sectors of the economy and on estimates of the stock of fixed capital held by various sectors. In addition, special tabulations and analyses of the various types of data collected are prepared for royal commissions, federal and provincial departments and agencies and business groups.

Quarterly data on assets, liabilities, net worth or equity and statements of revenue and expenditure are collected from a stratified sample of approximately five thousand corporations in both the financial and non-financial sectors of the economy. Since 1951 data on profits, taxes, sales and capital cost allowance have been published quarterly for approximately twenty-five broad industrial groups. In 1961 the collection of quarterly balance sheet data was started and information is now published for trust companies, mortgage companies, sales finance companies, consumer loan companies, mutual funds and closed-end funds. Development work is continuing on major industrial groups of the non-financial sector. Up to the present these two

series have been published separately but as the data are now collected by one survey, it is planned to publish a combined report which will show the balance sheet, statement of revenue and expenses, and sources and uses of funds for approximately forty major industrial groupings.

In order to obtain some preliminary indication of probable investment trends during the coming year as well as expenditures for the past year, estimates of capital and repair expenditures on construction and machinery and equipment are obtained from business, institutions and governments. In addition, estimates of the expenditures of individuals for housing are also included. Two reports summarizing the results of the surveys are published: the main report *Private and Public Investment Outlook* is released in March, and *Private and Public Investment Mid-Year Review* is released in July of each year.

During the year, there was a very substantial increase in the demand for more regional and industry detail for historical as well as current series. This, in turn, required expanded coverage, quality improvement and clarification, and review of some of the concepts and definitions in use. Although not all demands could be met, considerable progress was made in some areas. A start was made on examining the feasibility of expanding the coverage of the mid-year survey to enable the preparation of provincial estimates of capital expenditures at mid-year. Attention was also given to the possibility of changes in the timing of the capital expenditures surveys and to longer-range forecasts, as well as to the linking of the results of these surveys with changes in the fixed assets account items of the balance sheet data reported in the quarterly financial statements surveys. Consultations were held with the oil and gas industry and with the oil and gas well-drilling contractors in an effort to clarify the definitions used in DBS surveys in these areas. A study is underway in co-operation with industry, the federal and provincial Departments of Mines and the Industry Division of DBS to improve survey procedures for the remainder of the mining sector. The coverage for logging and municipal water utilities was reassessed during the year and improvements in estimates made. Work is continuing on preparing estimates of capital and repair expenditures in manufacturing by economic region in each province.

The results of the profits and investment surveys provide the basic data for corresponding items in the National Accounts and are widely used by business and government as key indicators of current and future developments in the economy.

In addition to the construction data provided in the investment reports which show expenditures on construction as reported by organizations paying for the work done, another report, entitled *Construction in Canada*, based on both the capital expenditures survey and a survey of the construction industry, provides information on value of work put in place by type of structure along with overall estimates of the labour and material content of this work. This report provides separate estimates for value of work performed by construction contractors and that performed by others engaged in construction work on their own account as well as an estimate of the trend of man-hours worked

in the construction industry. The monthly report *Building Permits* provides data on the number and value of housing units by type, and the value of industrial, commercial, institutional and government building construction from more than 1,400 municipalities in Canada. In addition, the Division publishes a monthly report containing the results of a nation-wide survey conducted by the Central Mortgage and Housing Corporation as well as information obtained on building permits. Work directed towards improving the methods of estimating residential capital formation was continued during the year under review.

Two reports on Canadian scientific research and development are published biennially by the Division: one on federal government research and the other on research and development in Canadian industry. In this connection, the Division has continued to assist other government agencies interested in this field, especially the National Research Council, the Department of Industry, the Science Secretariat and the Economic Council of Canada, which have, in turn, been of considerable help to the Division. Questionnaires for an experimental survey of the scientific activities of Canadian non-profit organizations in 1965 were designed during the past year and, if the results of the survey are satisfactory, they should be available for release in 1966-67.

Since 1963 the Division has worked with the Directorate for Scientific Affairs of the Organization for Economic Co-operation and Development in its efforts to standardize the definitions of statistics on research and development. In 1965-66 this involved participation in the OECD's "International Statistical Year for Research and Development" and included the preparation of estimates for total Canadian research and development expenditures in 1963. Recommendations for the revisions of the OECD manual now used for research and development surveys were made and will be discussed further at the forthcoming meeting in Paris in April 1966.

A federal-provincial seminar on capital stocks and flows was held during the year. A reference document dealing with methodology on capital stocks and flows in the Canadian manufacturing industries is expected to be released in 1966. This will be accompanied by a statistical supplement showing estimates of fixed capital flows and stocks in Canadian manufacturing for the period 1926 to 1960. Work is presently continuing in the estimation of capital stocks in the agricultural and housing sectors. Plans are also being considered for estimating capital stock in other sectors of the economy.

Reports on commercial failures in Canada are issued quarterly and are based on material supplied to the Bureau under the provisions of the Bankruptcy and Winding Up Acts. The number of failures and the amount of liabilities are published by region and by industry. In addition, reports are issued monthly and annually on the total value of cheques cashed in fifty-one clearing centres in Canada from material supplied by the Canadian Bankers' Association.

CANADA YEAR BOOK, HANDBOOK AND LIBRARY DIVISION

The program of the Division includes the planning, compiling, editing and publication annually of the English and French language editions of two official compendia of information on the Canadian economy, the *Canada Year Book* and the handbook *Canada*, and the revision of material relative to Canada for a score of national and international yearbooks. In addition, a suitably stocked library with appropriate services for statistical research and study is maintained.

The compiling, editing and printing of the *Canada Year Book 1966* extended throughout the fiscal year and it was anticipated that an initial supply of copies of the English language edition would be ready by mid-year 1966. At the close of the fiscal year, production of the French language counterpart, *Annuaire du Canada 1966*, had reached the half-way mark.

Early in November the official handbook, *Canada 1965-66*, was published simultaneously in English and French in quantities totalling over 157,000 copies.

In lieu of a standard official handbook *Canada* for 1967, a specially planned, enlarged and profusely illustrated centennial volume of about 500 pages was well underway by the close of the fiscal year. Designed to commemorate Canada's Centennial of Confederation and entitled *Canada, One Hundred, 1867-1967 (Canada, Un siècle, 1867-1967)*, it will highlight in textual, illustrative and tabular presentation significant developments in the nation's growth – geographic, political, demographic, economic, social and cultural. Publication of separate English and French editions totalling hundreds of thousands of copies is scheduled for March or April 1967.

As a focal centre for Canadian statistical material closely related to the overall authoritative coverage by the *Canada Year Book* of Canadian government and the economy, the Division supplied regular series of Canadian statistics for the United Nations Statistical Monthly Bulletin, the United Nations Statistical Yearbook and for the International Labour Office. In addition, the long-established practice of providing up-to-date annual revisions of Canadian material to many standard national and international reference works was continued, as was the dispensing of current and historical data in response to numerous multi-subject inquiries concerning Canadian affairs received by the Bureau.

CENSUS DIVISION

The main activities of the Census Division were centred around final preparations for the five-year census of population, agriculture and merchandising to be conducted in June 1966. The 1966 Census will be on a scale similar to the 1956 Census and will be much more restricted in scope than the statutory decennial census conducted in 1961.

Questionnaires and administrative forms were prepared, along with manuals for the training of staffs both in the field and in the processing offices. Computer edit programs and other pretabulation processing operations were developed and tested in conjunction with the Central Programming Staff. Final plans were completed for computer tabulations and for the publication of results of the Census. Plans were developed for the use of computer "print-outs" as direct photocopy for published tables and this method will be used in the production of a number of the population and agriculture reports.

Maps were prepared for each of the 36,000 Enumeration Areas and 1,450 Census Districts. Revisions to the maps were completed following a field check by regional office personnel. Enumeration supplies were packed for each of the enumeration areas as well as for each of the Census Districts and Regional Offices. Plans were completed with the other government departments concerned with the enumeration of persons located in the northern areas of Canada and of persons living on Indian Reserves and in military establishments. Preparations were made for an advance mailing of agriculture questionnaires to all farmers in Canada.

Sixteen reports of the 1961 Census were released during the year, including reports on economic characteristics and income of the population and reports relating to fertility and migration. In addition, the preparation of analytical reports for the General Review volume was continued and six reports were released during the year. Work on the production of the 1961 Census monographs continued and a number of analytical tables for the monograph writing were produced. Other specialized materials of the 1961 Census were made available to users in the form of special tabulations and computer summary tapes. The demands by users for 1961 Census information were very much heavier than at corresponding periods in previous decades, the most notable of these being increased requirements on the part of other government departments and boards, royal commissions, area development agencies, provincial statistical bureaux, municipal planning boards, marketing and other research consultants.

Changes in the Old Age Security Pension regulations resulted in a substantial increase in the number of requests for verification of age from early census and national registration records. Some 50,000 requests were received and processed during the year. The Proofreading Unit, in addition to reading all manuscripts before publication, reviewed all manuscripts for consistency of the English and French text prior to printing.

Plans for reorganizing and strengthening the Division were developed further and additional appointments were made in the Research Sections of the Census Division. These sections pursued the development of long-term research programs in the three areas of: Demographic Analysis and Research, Methods Research and Development, and the Population Estimations and Projections. In particular, early in 1966 the responsibility for population projections was assigned to the Census Division and developmental work on related topics was immediately begun. A number of studies in all three research areas have been formulated and commenced.

In collaboration with the Sampling and Survey Research Staff, plans have been drawn and preparatory work advanced for several methodological studies mainly in connection with the 1966 Census. In particular, the following studies have been started: the time study of the 1966 field enumeration; the production of addresses through electronic computers for one medium-sized town; a test of the adequacy of the 1966 Census postal check; and a study of the adequacy of some aspects of the editing and other processing procedures used in the 1966 Census. A number of Technical Memoranda and Census Technical Papers in the general area of Demographic Analysis and Research were produced.

The regular series of quarterly population estimates and annual reports were prepared for publication. The annual report on the *Estimates of Families in Canada* were prepared and published during the year. The annual report on *Canadian Citizenship Statistics* was also published as well as a special review of Canadian Statistics on Citizenship covering the 1959-64 period. A report entitled *Selected Statistics on Children* was prepared for the 1965 Conference on Children.

Representatives of the Division served on various DBS and interdepartmental committees and acted as consultants to other government departments and to international organizations. Two members of the Division attended the World Population Conference in Belgrade at which two papers were presented. In addition, a program for training a number of students from other countries on international fellowships was held during the year.

EDUCATION DIVISION

As a result of the increasing use of computers and of the growing emphasis on education and economic planning, major changes are taking place in the realm of education statistics. The computer makes possible the establishment, storing, and up-dating of individual records of large numbers of schools, teachers and pupils. As a result, the processes of tabulation, have been speeded up giving ready access to particular records and facilitating studies over a period of time hitherto only possible with small numbers, with great effort and at considerable expense.

The growing emphasis on education planning is creating a demand for greater detail which depicts movement and change particularly in relation to students. These include data on numbers of beginners to the education stream or to a particular level or source, movement from one grade or year to the next, or from one course to another, and numbers of dropouts and graduates.

Educational planning also requires the collection of data on schools, teachers and finance hitherto not available. A natural result of the concern with planning is the demand not only for short-term estimates which can be based largely on known quantities, but also for long-term projections which must, of necessity, be based much more on assumptions. This demand is coming from economic councils, federal and provincial departments and

agencies and private companies. Under present circumstances these demands can hardly be met. School boards and various education institutions across the country are establishing data banks of records particularly on pupils so that there is a pressing need to establish coded lists of basic items if any degree of uniformity and comparability is to be maintained within provinces and among the provinces. Some of the provinces are already moving towards the establishment of provincial records.

In view of these developments and the needs of the provincial departments of education, the Ministers of Education have appointed a Ministers' Information Services Committee consisting of representatives from each province as an interprovincial organization whose objectives are to advise, to communicate about, and to co-ordinate activities in the field of education data processing in Canada. Officers of the Education Division are working closely with this Committee as they attempt to consider and organize the whole range of data to be collected, the uses to be made of the derived statistics, and the practical problems of collecting the data and establishing the records in each province.

In co-operation with the Departments concerned, individual pupil record forms for collecting data on pupils withdrawing from school were instituted for Nova Scotia, Indian Affairs and Northern Development in an effort to improve information on this subject. It is anticipated that New Brunswick will adopt this method next school year. The annual survey of private kindergartens and nursery schools, which was begun two years ago in five provinces, was extended this year to include all provinces except Quebec. There are some seven hundred of these schools. In the fall of 1965 the information required on high school pupils in public schools was extended to include numbers completing secondary school. Also additional information was asked of high school teachers to discover their academic preparation in relation to the subjects they teach.

In the Vocational Training Section, a Survey of Training in Industry first undertaken in the spring of 1963 was repeated in the fall of 1965 in co-operation with the Economics and Research Branch of the Department of Citizenship and Immigration, the purpose being to determine the extent to which industrial firms are providing organized training programs and some tangible incentive to employees to advance their training or education. In addition, two special projects were undertaken: one was a survey of part-time enrolments and of the salaries and qualifications of staff in institutes of technology; the other was a survey of private trade schools and business colleges to gather data for an up-to-date directory of these schools. These three studies were in addition to the regular work of the section which includes the collection, processing and tabulation of statistics on eight technical and vocational training programs, six of which are monthly reports, as well as the collection, processing and tabulation of data on enrolments and staff in private trade schools and business colleges.

In the field of higher education, two reports on university salaries, one on salary scales and one on actual salaries, at about fifty institutions were again prepared for the 1965-66 academic year for the Canadian Association of University Teachers (CAUT) and the Canadian Association of University

Business Officers (CAUBO), both of which were subsequently reprinted in *The CAUT Bulletin*. Numerous requests for data on university tuition charges resulted in the issuing of a compilation on *Tuition and Living Accommodation Costs at Canadian Degree-granting Universities and Colleges, 1965-66*. This proved popular and will become a regular annual publication.

Several weeks were spent in a consulting role with the Royal Commission on Financing Higher Education and with the Association of Universities and Colleges in Canada (AUCC) in the summer and fall, prior to the release of the report of the Commission (the Bladen Report) in October. Subsequent federal implementation of certain of the recommendations (such as the creation of some form of a federal secretariat of higher education and a system of weighted enrolment counts for federal operating grants to universities), begun or announced early in 1966, are already increasing the complexity of statistical and technical demands on the section from the various federal departments concerned with higher education and from the AUCC and the other higher education organizations.

The Section also undertook to prepare data on salaries and qualifications of university teachers of nursing for the Canadian Nurses Association. Planning is presently underway for a DBS conference on higher education enrolment and graduation statistics to be held in June 1966. The AUCC have requested the Section to publish again *Awards for Graduate Study and Research*, which in recent years has been published by another organization, but the present staff situation prevents this. In addition, a chapter on "Education" was prepared for the 1965 *Canadian Annual Review* as well as the Canadian chapter on higher education for Volume IV of UNESCO's *World Survey of Education*, issued early in 1966. In the Adult Education and Libraries Section of the Division, the annual *Survey of Libraries, Part I and Part II*, the annual *Survey of Adult Education* and a report on *Museums and Art Galleries* were published in addition to several small preliminary releases issued to compensate for the time lag in the publication of regular reports and for distribution at conferences. These included *Adult Education in Canada, 1963-64*; *Circulation and Payments of Public Libraries, 1964*; *Directory of Museums and Art Galleries, 1964*; and *Median Salaries of Library School Graduates*. Material was also provided for a brief summary of Library Resources in Canada to be issued by the Information Division.

Two papers were prepared for conferences on adult education, one entitled *Population with Limited Education, Census 1961* and the second entitled *Measuring the Need for Basic Adult Education* based on extensive published and unpublished census data assembled with the assistance of the Census Division.

During the year the Research Section completed and published a report on *Student Progress through the Schools, by Age and Grade, 1965*. In addition a report on *Canadian Education through Correspondence* is now being prepared for the printer, a preliminary version of which was issued for an international conference on correspondence education held in Sweden in June 1965. A comprehensive survey of the educational provisions for exceptional children has been undertaken and is now nearing the end of the data-collection stage.

The objective is to provide an accurate statistical description of the educational effort being made on behalf of gifted, retarded, crippled and otherwise handicapped children by public and private authorities, and to show certain characteristics of their teachers.

In co-operation with the Canadian School Trustees' Association, a survey of the membership of school boards in Canada is being made; the design of questionnaires is well advanced and preparations are being made for the drawing of the sample.

A fifth project, the *Statistical Review of Education, Census 1961* has been delayed awaiting the arrival of certain census tabulations. A sixth project, *Census and Other Data for Vocational Counsellors*, is now in the final stages of preparation.

A major project of the Finance Section, the preparation of an *Accounting Manual for School Boards*, was completed and is being printed. This, when put into use by the provinces, should give considerable impetus to uniform accounting by school boards across the country. Improvements in the data collected were made by a more extensive and intensive survey of expenditures on education by federal departments and agencies beginning with 1963-64 figures, and by collecting financial statistics from the smaller colleges which hitherto were not included in the annual survey. Though individually small, *in toto* they account for twenty per cent of the enrolment in higher education. Preparations are underway for a federal-provincial conference on financing higher education in June 1966.

A revision of the *Organization and Administration of Public Schools in Canada* has been in progress during the year. Each chapter in draft form was submitted to and discussed with officials of the provincial Departments of Education concerned so that the publication will be as up-to-date and authoritative as possible. In co-operation with the Information Division an information and advertising program was developed which has materially increased sales of education publications. In all, twenty publications were released by the Education Division during the year and at the end of the fiscal year an additional seven were in process of printing.

EXTERNAL TRADE DIVISION

The External Trade Division is responsible for planning the content of Canada's commodity trade statistics, and for the analytical and clerical work required to produce these statistics. Available publications and records, as well as planned publications for which the basic analytical and clerical work has been completed, provide statistics on exports and imports by commodity, by country, by province of customs clearance, and by whether goods moved via Canadian or United States ports; on exports by mode of transport and by province of lading for export; and on imports by tariff item.

Tariff item statistics are the latest addition to the Division's output. Compilation of these statistics commenced in September 1965, the first full month that the new tariff item numbering system was in effect. Compilation plans provide for monthly statistics on almost every item of the Customs

Tariff, with details of the value and duty collected or assessed on imports from each country. In its initial stages this project has encountered an unusual concentration of administrative and computer programming problems, and it is unlikely that monthly statistics will be available regularly before the latter part of 1966. It is hoped that extensive cross-classifications of tariff items and commodity classes will eventually be possible, but each unit of information released on this basis must first be checked for consistency with the secrecy provisions of the Statistics Act.

During the year preparations were completed for the publication of the Division's principal monthly reports in a bilingual format. This new format will be introduced with reports for January 1966. Another change in the format of these reports will be to present values in terms of thousands of dollars. This presentation was tested in the preliminary annual import report for the year 1964, and was found to be acceptable to most users of import statistics. It is considered to have the additional advantage of being more consistent with the actual accuracy of statistical tables than the former last-dollar presentation.

The work of the Division continued in 1965-66 under the handicaps of inadequate professional and managerial resources, and limited clerical facilities. In consequence, it was not possible to deal with certain desirable studies and improvements in the data and procedures. As a result of these and other problems, there was some deterioration in the timeliness of certain reports.

GOVERNMENTS AND TRANSPORTATION DIVISION

The function of this Division is to collect and publish data on the financial structure of all levels of government in Canada with particular details on numbers employed and payrolls, the performance and financial condition of rail, road, water, air, pipeline and other forms of transport, and public utilities.

In addition to responsibility for the publication of statistics in the field of government employment and payrolls, the Division is charged with the preparation of employment and payroll data for special use by the Civil Service Commission, Treasury Board and other central agencies of the federal government. A survey of benefit usage in the Public Service of Canada is being undertaken to provide Treasury Board with data for use in connection with staff management policy decisions. Considerable progress was made towards the establishment of a Central Personnel Record System for the Public Service of Canada intended to provide central agencies of federal government with data for the purpose of making pay and staff management decisions and also to provide departments with data for their use in staff management activities. The additional details provided by this system will also be used in producing more extensive statistical analyses. Special tabulations were prepared in extensive detail for the use of the Royal Commission on Bilingualism and Biculturalism. A sample survey of employment

and payrolls in small urban and rural municipalities was developed. Plans are currently being made to develop an extended analysis of information for municipalities with populations in excess of 50,000.

In addition to the regular statistical program in the field of government finance a great deal of time was devoted to the work of the Dominion-Provincial Tax Structure Committee. Seven volumes of data were prepared for discussion and examination by the Committee and discussions were held with provincial treasury officials in all provincial capitals across Canada. *Historical Review - Financial Statistics of Governments in Canada - 1950-62* was distributed by the Minister of Finance to the other members of the Tax Structure Committee and was later released as a DBS publication. The document includes a detailed description of the conceptual framework, classification systems and basic sources of information used by the Dominion Bureau of Statistics throughout the government finance statistics program. This work was indicative of the sharply increased interest expressed by federal and provincial government officials in government finance statistics. In an effort to improve the quality of the program, a series of discussions were held with provincial and municipal government treasury officials. Consultations were also held with the Canadian Council on Urban and Regional Research, the Institute of Local Government of Queen's University, the Canadian Tax Foundation and other organizations, with particular emphasis on the shortcomings in the field of municipal government finance statistics. A conference on this subject will be held at Queen's University in May, 1966 at which DBS will be one of the joint sponsors.

Work continued with the Expenditure Coding Committee of the Government of Canada in connection with the development of an accounts classification which will identify expenditures by program, by activity and by economic object, using to the extent applicable DBS classification systems. When implemented these recommendations will materially improve both the financial management and the National Accounts analyses of government expenditures. Preliminary discussions have been carried on with officials of the provinces of British Columbia, Saskatchewan, Alberta, Ontario, Quebec and Newfoundland, with a view to the adoption of similar account classifications.

Considerable developmental work has been carried out in extending the flow of funds exercise to federal government enterprises, provincial and municipal governments and also provincial government enterprises. In co-operation with the Department of Finance, the flow of funds statements of the federal government for the fiscal year ending March 31, 1965, have been analysed on a "sectored" basis to determine the source and use of funds by the federal government in each sector of the economy. Arrangements have been made with provincial governments to commence reporting quarterly balance sheet information as well as revenue and expenditure transactions, starting with the third quarter of 1965. A quarterly reporting form for federal and provincial government enterprises and municipalities has been developed to be introduced with the quarter ending March 31, 1966.

Statistics dealing with government indebtedness have been improved with the introduction of a monthly reporting system of provincial and municipal debt transactions commencing in January 1966.

In the public utilities field, preliminary discussions have taken place with officers of the Board of Broadcast Governors and the Department of Transport with reference to the collection of statistical information from radio and television broadcasting stations. With the assistance of the National Advisory Committee on Broadcasting Statistics the reporting schedules were considerably revised.

In the field of transportation statistics, an extensive review was made of the work procedures connected with the Motor Transport Traffic Survey.

Extensive work was also done on the implementation of the Standard Commodity Classification and its use by railways in reporting commodity data. Conversion of rail freight traffic statistics from the commodity classification system used in the United States is being accomplished through a computerized conversion program. The DBS Advisory Committee on Rail Transport Statistics appointed a subcommittee to review all aspects of statistics in the field of rail transport.

A number of extensive tabulations were produced at the request of the National Harbours Board, the Economic Policy and Research Branch of the Department of Transport and the Atlantic Provinces Transportation study.

On April 1, 1966, Treasury Board authorized the establishment of a new Section of the Governments and Transportation Division of DBS as a satellite operation within the Department of Transport. The Section, officially designated as the "Aviation Statistics Centre", was created to meet the requirements of the Department of Transport, Air Transport Board and other agencies of the government for aviation statistics representing a new approach to the provision of statistics within government.

HEALTH AND WELFARE DIVISION

This Division is responsible for the production of statistics on the state of health of the Canadian people, on the enforcement of law and on the administration of justice in Canada. Three sections share the responsibility for producing statistics on health. The Vital Statistics Section is concerned with recording births, deaths, marriages and divorces. In particular, it carries out studies on natality, mortality, fertility and life expectancy. The Institutions Section is concerned with the services, facilities, staffing and finances of general and special hospitals, and of mental and tuberculosis institutions. The Public Health Section is concerned with the individual conditions and the personal characteristics of patients in hospitals of every treatment type. It is also concerned with the incidence of a number of communicable diseases. The fourth section, the Judicial, is responsible for the production of criminal and judicial statistics based on information supplied to it by police departments, courts, correctional institutions, the Penitentiary Service and the National Parole Board.

The Division carried out its statutory obligations in the field of Vital Statistics by preparing and publishing the regular series of reports, and by providing the provinces with basic tabulations of births, stillbirths, marriages

and deaths, as required under Dominion-Provincial Agreements. Throughout the year, demands for information continued from public health officials, education authorities, individuals engaged in medical research, manufacturing and distributing firms, market research agencies and other government departments, as well as the public at large. Many of these demands represent requests for detailed analyses of current and historical records. More frequent this year than ever before have been requests for intensive investigations of the patterns of nuptiality and fertility as a result of the recent drastic changes in the birth and the marriage rates. New developments in hospital and medical care have added to the already considerable flow of demands for information on mortality due to particular causes. Most of these varied requests required special calculations and compilations as the information demanded was not available in any published form.

To meet a number of demands, as well as satisfying special interest groups, several analytical studies have been published or are planned. These studies relate to cancer, accidents, heart disease, foetal and infant mortality, nuptiality, fertility, and life expectancy and deal with the latest trends in these areas as well as seek to elucidate factors associated with the direction and magnitude of the trends. Besides the planned special life expectancy study, a series of annual life tables is being initiated to serve as a general reference for those interested in survivorship and for government and other bodies responsible for long-term projections and planning.

Since 1945, the Division has been preparing, on behalf of the provinces and the Family Allowances Administration, alphabetic registers of births, marriages and deaths. As this task is not directly statistical in nature, the Bureau would be agreeable to transfer this work to some other body; negotiations to this end and investigations into suitable alternative methods of supplying the listings are continuing.

Processing of vital records in the Bureau is an expensive and lengthy process. Economies have already been realized by making arrangements with the five largest provinces to share with them the cost of producing basic statistical records by standardizing statistical procedures. Further economies and even more complete co-operation with provincial authorities should be possible when the vital statistics output begins to flow from a specially written electronic computer program. In the meantime, in order to advance publication dates and to meet pressing demands for new statistics, the existence of a general purpose program has been used and a large number of routine calculations carried out automatically by electronic equipment.

Each year the Division provides the Vital Statistics Council for Canada with its secretariat service and is usually involved in the examination of a number of problems designated by the Council, some of which relate to legal and administrative features of the vital statistics system while others extend to the general sphere of social statistics. One problem which resulted in a great many meetings was the investigation and redesigning of the registration forms used by the provinces. The objective of this investigation was to standardize the content, size and format of the schedules used by all the provinces, except where local legal requirements make some variation inevi-

table. The schedules, of course, serve both legal and statistical purposes so that provision has to be made for meeting both requirements. The anticipated benefits will be both administrative and statistical and will include cost economies, a new convenience in processing, a new ease of record exchange, saving of space in storing the forms and other advantages for the provincial administrators. At the same time the statistical usefulness of the schedules will also have been thoroughly reviewed.

By characterizing the operating and financial activities of hospitals of all types, the Division produces a wide range of statistics. The range includes measurements of the facilities, services, supply of personnel, training programs, and the finances of general and special hospitals, as well as of mental institutions and tuberculosis sanatoria. As it takes considerable time after the close of the calendar year for the hospitals to complete their accounting work and submit returns to the Division for processing and publishing the data, it became necessary to issue a preliminary hospital statistics report. The figures in this report, which are estimates drawn from the total hospital universe, were published within ten months of the close of the calendar year and it is hoped to improve the timeliness of this report in subsequent years. In the meantime, the complete program of hospital statistic production has been accelerated as much as possible. As a result the full range of 1963 statistics were all published two months in advance of the previous year's date. Further improvement is anticipated in the next fiscal year.

During the year, the staff of the Institutions Section worked very closely with officers of the Quebec Hospital Insurance Service to develop an integrated approach toward editing the comprehensive hospital returns. The results of these endeavours have exceeded expectations. Not only have the edited figures become available more quickly than before but the quantity of acceptable input has increased in size.

During the year an econometric analysis of hospital statistics was begun by the Division, in co-operation with the Research and Econometric Staff in the Bureau. At the close of the year, the Division obtained the services of an experienced specialist in operations research who will continue the original study, and will investigate other applications of mathematical techniques to data based on operating and financial activities of hospitals.

As in the past, the Division published information on the medical conditions, and social and other characteristics, of patients confined to hospitals of all types. In particular, a second report on morbidity in general and allied special hospitals was prepared covering 1961 and shows detailed diagnostic information for about 900 categories of the International Classification of Diseases for nine provinces, subdivided into age and sex groups with rates shown for these population groupings. Previously information of similar detail and completeness, together with rates, had not been available for identifiable populations of this size. This work represents a significant addition to morbidity knowledge in Canada as for many diseases and many conditions, the hospital morbidity figures constitute the only available source

of information. Preparatory work done during this fiscal year should enable an additional three years' figures to be published during the next 12 months, thus bringing the reports on to a more current basis.

Besides the work on morbidity in general and special hospitals, the regular reports on mental and tuberculosis institutions were published during the year, together with a monthly report on the incidence of tuberculosis. An evaluation of the currently existing mental health statistics was carried out and as a result, a statistical program for the future was outlined.

There were several developments in the tuberculosis morbidity statistics area. Individual case reporting was commenced on persons being treated outside institutions. The Division was represented at the annual meeting of the Canadian Tuberculosis Association and at the Third National Conference on Tuberculosis where papers were presented by officers of the Division. In addition, visits were paid during the year to several provincial registers, as well as to a number of individual sanatoria in connection with the monthly tuberculosis incidence reports, which are derived from the provincial records of known active, inactive and reactivated cases of tuberculosis. Weekly bulletins on the incidence of communicable diseases were also released for the benefit of public health authorities and these weekly figures were later incorporated into an annual publication. Tabulations of certain venereal infections reported to the Division were forwarded to the Department of National Health and Welfare for inclusion in a special report.

There were many time-consuming special requests for information on morbidity from federal and provincial government departments and from individuals. In many cases the replies required special compilations and tabulations drawn from the mental health, tuberculosis, hospital morbidity and communicable disease statistics systems maintained by the Division and ranged from material for a national conference on the aged as well as for a national conference on children, to information on the distribution of hospital beds in a province or data on particular diseases.

During the year, the Division published information on crime and traffic enforcement statistics, on police administration, on criminal and other offences tried in courts, on correctional institutions, and on juvenile delinquency. It also supplied the Commissioner of Penitentiaries and the National Parole Service with statistical tables for inclusion in reports issued by these agencies. As well, for the first time, the Division released a report on murder statistics which covered the years 1961 to 1964.

In addition to the regular publications that were released during the year, a number of others in the police, juvenile and adult courts area as well as on training schools were prepared for publication. As a result, it is expected that the currency of publications in these fields will be much improved in the forthcoming year.

Work toward the improvement in quality and currency of statistics in the areas of law enforcement and the administration of justice has continued. Monthly reporting has been introduced into the collection of juvenile and

adult court figures. As well, permission to collect adult and juvenile probation schedules, and adult correctional institution records, on a monthly basis, has been received. Besides these substantial changes other reporting developments have taken place. One of these is a respondent review program designed to improve statistics in the court area. A joint working group consisting of officers of the Canadian Penitentiary Service, Department of Justice, and the Division was formed and their recommendations, if accepted, will advance the usefulness of the penitentiary statistics program.

Reporting by police correspondents is done according to a uniform crime reporting manual which was reissued this year in a revised form. In addition, the Royal Canadian Mounted Police discontinued their own reporting system and adopted the uniform one which resulted in doubling the number of basic reports to the Division and the processing of a man-hours study on a monthly basis on behalf of the RCMP.

The Division keeps records of penitentiary movements and of penitentiary inmates. To facilitate the preparation of inmate statistics, a penitentiary census deck was set up, verified, and tabulated for the first time. A problem in balancing figures received from various institutions has been resolved and it will only be necessary from now on to maintain the deck in an up-to-date condition by indexing all the changes as they occur.

Another development which took place during the year was the revision of the annual report on correctional institutions statistics with the addition of the standard capacity of the institutions. Further work was carried out on murder, arson and bank robbery statistical projects. Highway traffic statistics were reviewed during the year, and copies of an American manual were sent to police correspondents to use for experimental purposes.

INDUSTRY DIVISION

A major part of the work of the Industry Division is centred around statistical surveys of establishments in the industry and energy fields. Forestry, manufacturing and mining are surveyed annually for a considerable amount of data; and monthly, quarterly or seasonally for current information on the production of important commodities and materials. With the exception of current commodity and employment statistics, fishing is surveyed quinquennially on an establishment basis. Energy surveys, likewise, are conducted on both an annual and current basis. The surveys in the two fields are carried out in connection with the Division's responsibility for a co-ordinated program of industry and energy statistics. Other important responsibilities include the development of productivity measures for the economy as a whole and for individual industries, and the collection and compilation of stock figures for the broad range of commodities considered to be critical in the event of a national crisis.

The prompt release of accurate statistical information on the subject-matter areas for which it is responsible is the primary objective of the publication program. Of perhaps most significance was the headway made in

advancing the processing schedule which should, in the year to follow, result in a further substantial improvement in the timeliness of the Division's publications. However, the release of the general manufacturing reports may be delayed for lack of computer time because of processing the 1966 Census of Canada records.

The Division's work is organized along subject-matter lines into four main sections - Industry Statistics, Productivity Research and Analysis, Energy Statistics, and Shipments, Inventories and Orders. Additionally, there are several other units including the Emergency Supply Planning Unit and the Analysis and Development Staff.

The past year was generally a period of consolidation for the Industry Statistics Section with relatively few major new developments taking place. Emphasis was again placed on improvement in the quality and timeliness of the various statistical series. However, the following developmental work is of interest: (1) new conceptual and operational procedures to obtain information with respect to research and development expenditures in mining by use of one questionnaire to meet the purposes of the provinces, the Business Finance Division and the Industry Division, and will eliminate three existing separate enquiries; (2) procedures to provide additional service to the provinces through accessibility to data filed as part of the censuses of manufacturing, forestry, mining and the co-ordination of processing principles and procedures; (3) increasing demand by the Department of Industry for special surveys, compilations and expansion of existing surveys. At the end of the fiscal year, the editing of 1964 data was 96% completed, this represents a gain in timeliness of about three months over the 1963 editing. In addition, one hundred and seven 1963 annual industry reports have been released as compared with sixty-five 1962 publications at the end of the last fiscal year. The 1965 editing is already in process and represents a gain of about four months over the 1964 annual censuses.

In the area of current statistics, the streamlining of processes and procedures has enabled the current operations unit to assume the responsibility for about fifty additional surveys and reports, which were formerly undertaken by subject-matter staff. As is the case for annual statistics, collection problems continued but improvements in vari-typing and printing operations reflected an improvement in timeliness.

In the subject-matter areas, the census of logging is now on an establishment basis and comparable data have been reworked back to 1961; the statistics for a number of industries including sawmills, planing mills, railroad rolling stock, printing and publishing have been reworked back to 1961 in keeping with changes in classification, revised concepts and procedures; the statistics for integrated mining, smelting and refining companies have been reworked back to 1961 on the new conceptual approach; the restructuring of the mining industries to reflect establishment statistics has been virtually completed and revised statistics linking 1961 to 1963 will be available early in the new year. The new survey of the primary fishing industry is in progress and the enumeration for the year 1965 is planned for completion by the end of June 1966. In addition to the foregoing, the in-

creasing impact of the Department of Industry's statistical requirements has resulted in two additional special surveys being undertaken, the planning for a third such survey and the preparation of a number of special tabulations. A special service bulletin covering food and beverage statistics has now been implemented and planning for similar bulletins in other subject-matter areas is underway.

In line with emphasizing liaison with principal suppliers and users of data, officers of the Section continued to emphasize personal contacts; in particular, trade associations were urged to develop continuing statistical committees, and meetings of such committees were held or are planned in all subject-matter areas. An interesting development in this regard was the formation of a continuing statistical subcommittee of the Provincial Mines Ministers' Conference, the secretariat of which is provided by the Section.

Active participation of section officers in the revision of the first draft of the Industrial Commodity Classification has resulted from the extensive comments and suggestions from industry and government agencies. Although there will be partial implementation of the suggestions in the 1966 questionnaires, it will not be possible, because of the volume of work, to complete the Classification nor to fully implement it in 1966 as was originally intended.

In the Productivity Research and Analysis Section, work continued, during the year under review, on the extension and refinement of measures of aggregate productivity performance for the Canadian economy. The industrial coverage of the reference paper *Indexes of Output per Person Employed and per Man-Hour, Commercial Nonagricultural Industries, Canada, 1947-63*, which had been released during the previous year, was broadened to include agriculture, and the component measures were updated to 1964 as well as being extended back to 1946. Thus the measures now cover the entire commercial economy. Because of the severe conceptual and statistical problems involved in the measurement of real output in the noncommercial sector of the economy, it is not expected that this coverage can be further extended in the foreseeable future. Efforts are, rather, being directed towards the provision of further industrial detail within the commercial economy. It is hoped that, as the next step in this direction, separate measures for the goods and service producing industries can be made available.

Progress was also made during the year in the program of productivity studies for individual manufacturing industries. A combined report for the Synthetic Textile Mills, Breweries and Pulp and Paper Mills will be published during 1966.

An Interdivisional Committee on Industry Real Output and Productivity Measures was formed for the purpose of guiding the development and co-ordination of the broad range of basic statistics underlying these two closely related programs. The Committee in co-operation with the Section has initiated a systematic review of existing surveys, programs and plans with DBS, as they affect real output and productivity measurement.

A new departure during the year was the application of matrix programs to the computational problems of the Section. This technique has so far been used only in the area of aggregate productivity measurement, but it is expected

ted to contribute significantly to the improvement of timeliness in all the Section's projects, present and proposed. The Section continued to maintain close contact with governmental and other users of productivity statistics to keep abreast of their evolving requirements. In addition, a paper on Canadian productivity measures was presented before the American Statistical Association in a joint session with colleagues of the United States Bureau of Labour Statistics.

The year's major activity in the Energy Statistics Section was the intensive development of coal statistics. A ten-year supply-demand table on this commodity was prepared and published. In addition, there were major improvements in methods and procedures, which resulted in simplified reporting of coal statistics and a sharply reduced number of respondents. Preliminary studies were undertaken towards developing the second stage of energy supply-demand tables. Annual supply-demand data are now available on all the major energy commodity series. The second stage of development will be the integration of these series into comprehensive energy supply-demand statistics including the utilization of energy and its impact on Canadian industry. Intensive development on this second stage will be undertaken in 1966-67. Timeliness of all publications continued to improve, and by the end of the year, virtually all compilation backlogs had been eliminated. A new current publication, entitled *Energy Statistics Service Bulletin*, was inaugurated to release to the public preliminary data and energy statistical notes.

In the Shipments, Inventories and Orders Section the annual revision to the monthly shipments, inventories and orders survey to the latest census base was carried out to the 1962 base. At the end of this year it is anticipated that, with the improvement in the timeliness of the census, the annual revision will be to a 1964 base; that is, although the year 1963 will be revised to 1963 annual values, the year 1964 and the estimates for 1965 and for the current year will be on a 1964 base. The revision is expected to be published in the April issue of the bulletin. The work on the revision of the economic use groupings and on the seasonally adjusted data for the industry group classes is continuing. The new monthly series on the printing and publishing industry from 1964 will be included in the next annual revision. Monthly reports from sawmills are being collected and the results will be incorporated into the series as soon as possible.

During the year, increased emphasis was placed on the collection of reports from firms in the survey and considerable improvement in collection was experienced. In addition, contact with Associations from the point of view of the monthly survey was well begun with two meetings with the electrical manufacturers. Work on extending the coverage of the survey in order to permit some major group breakdown by provincial groups is being pushed with a view to publishing some data at the beginning of 1967.

The Emergency Supply Planning Unit is responsible for the collection and assembly of data on stocks of critical survival materials for use of the Emergency Supply Planning Branch of the Department of Defence Production. During the past two years the emphasis has swung from food and clothing items to information required by the Department of National Health and

Welfare on drugs, pharmaceuticals, medical supplies, surgical instruments and machines. Data on coal and other energy products was also developed during the past year. Computer processing was extended to all the Unit's commodity series with consequent improvement in report design and clarity of detail.

During the year the Analysis and Development Staff was given increased responsibilities through the expansion of existing programs and the transfer to it of activities formerly performed in other parts of the Division. The staff is primarily responsible for the study and development of data presentation in the Industry Division's general publications on Canada, the provinces, and sub-provincial areas, the preparation of material for other publications such as the Canada Year Book and the Canada handbook, and the provision of consultative, developmental and informational services on a wide range of general industry statistics. These responsibilities involve the descriptive analysis of industry trends; the co-ordination of the statistical tables contained in the general reports with those in other division and Bureau reports; the development and analysis of comprehensive commodity statistics including the implementation and maintenance of the Industrial Commodity Classification (an adaptation of the Bureau's Standard Commodity Classification to Industry Division requirements); the development, in co-operation with other divisions, of various series of company statistics; through liaison with principal subscribers to the division's general publications and with major users of general statistics, the investigation of the desirability and feasibility of instituting new series, compilations and presentations of industry statistics; and the servicing of numerous complex requests relating to the division's statistics.

Although still labouring under the backlog of work arising from changes in classification, concepts and methods of processing of data, the staff accomplished some improvement in timeliness of release of its annual reports. By year-end, the *Advance Statement* of summary statistics of the manufacturing industries based on the 1963 Census of Manufactures had been released, and manuscript preparation for the 1963 Canada and provincial reports on manufacturing was well under way. During much of the year, however, a major part of the staff's efforts was directed to greatly expanded statistical analysis and to the introduction of a bilingual format in the Canada and five provincial or regional reports of the *Manufacturing Industries of Canada* series for 1962. In the provincial reports, historical tables on principal statistics on manufacturing activity, by industry group and industry, were published for the 1957-61 period on the basis of the revised Standard Industrial Classification and new establishment concept. Statistics for 1961 were republished in the 1962 reports on the basis of both manufacturing and total activity, introduced for the first time in the 1961 Census of Manufactures.

A preliminary draft of the *Industrial Commodity Classification Manual* was published and circulated to other government departments and agencies, industry associations and selected corporations. As a result, numerous meetings have been held with representatives of various groups to discuss their proposals for changes in the classification. These have been so extensive that full implementation of the Industrial Commodity Classification, originally planned for the 1966 Census of Manufactures, will not be possible until 1967 at the earliest. Pending the implementation of this classification,

consolidated data on commodity shipments will continue to be published in alphabetical sequence in the report *Products Shipped by Canadian Manufacturers*, formerly a part of the *General Review of the Manufacturing Industries* and published separately for the first time for the year 1961.

Throughout the Division, the program for computer processing continues to play a prominent role in planning and to exert a strong influence on actual operations. By year's end, practically all of the 1964 manufacturing returns were being processed through the system with 1965 returns to follow within a month's time. Computer processing of principal statistics for logging began in 1965 and steps were taken to implement other primary industries in 1966. The development of a computer program for the photo-reproduction of statistical tables was well advanced and considerable progress made in adapting to computer print-out, two reports of the *Manufacturing Industries of Canada* series: *Geographical Distribution and Type of Organization and Size of Establishment*. When completely developed and tested, this program should result in a substantial reduction in the time spent on the preparation of publications.

Extensive revisions were made during the year to the computer records for the Census of Manufactures for 1961, 1962 and 1963. These resulted from a determined effort to improve the data for those years and, at the same time, to provide a solid base for maintaining and improving the quality of manufacturing statistics in future censuses. A number of revisions were indicated during a thorough review of the geographic codes assigned to establishments. Other revisions arose through the analysis of the more extensive compilations now made by the computer while others resulted from the intensive edit to which manufacturing data has been subjected during, and following the recent changes in classification and concept in the Census of Manufactures. Based on the experience gained with the computer program for the three years, new and revised procedures are being instituted to ensure better detection of errors and inadequacies in the early stages of processing.

In developing the computer program, a determined effort is being made to provide for all foreseeable requests for information and special compilations. The number of requests is increasing yearly and 1965 was no exception. Of particular note was the accelerated demand for statistics at the subprovincial level from provincial governments, municipal planning boards, individual development agencies, market research organizations, trade associations, companies and individuals. The statistical needs of federal departments, especially the Department of Industry, the Economic Council of Canada as well as the provinces for economic planning has resulted in greater pressure for statistical services and for greater participation in industry surveys.

INFORMATION DIVISION

During the year the Division continued and improved its activities in the dissemination of information and in answering inquiries. Progress was also made on meeting the Division's other responsibilities and in reorganizing to deal with them on a more adequate basis. These other responsibilities

are mainly the improvement of relationships between the Bureau and respondents to DBS surveys and extension of the uses of DBS statistics. In addition, new functions of the Division include the development of the uses of statistics in areas where they are now used rarely or not at all; a consultative editing service for DBS statistical publications; and an increase in the publicity activities for the Bureau.

In statistics use development, a limited advertising schedule was undertaken directed mainly toward the management areas of business. This advertising indicated the kinds of statistical information available from the Dominion Bureau of Statistics and in general terms, the uses that can be made of it. It also contained references to a booklet intended for business people presently making little or no use of DBS information. As a result more than 12,000 copies of the booklet were issued in response to requests. Some editorial services work was also carried on during the year and improvements in the design of a number of publications were carried out. Publicity activities included exhibits and displays for meetings and conventions as well as promotional pamphlets for various purposes which were used at meetings of the Woodworking, Machinery and Supply Association; the Canadian Hospital Association; Conferences on Productivity through New Technology in Toronto and Montreal; meetings of the Canadian Electrical Manufacturers Association; the Ontario Food Processors Association as well as the Canadian Food Processors Association; the Canadian Library Association; the Canadian Museums Association and the Conference of Metallurgists. Along with other DBS officers, the Division was involved in a joint DBS-Institute of Association Executives conference intended to better acquaint associations with the work of the Dominion Bureau of Statistics and to encourage the uses of statistics through associations. During the year, a number of pamphlets were produced and distributed on such subjects as education statistics and food processing.

Many inquiries for statistical information are handled by the statistical divisions of the Bureau in addition to those processed in the Information Division. Recorded inquiries handled by the Information Division during the year totalled 1,967 by mail and 2,171 by telephone; in addition 715 visitors called at the office seeking statistical information. In many cases information for these inquiries had to be assembled from a variety of sources and included special tabulations in some instances. Most of these inquiries were from Canadian sources, but many were received from foreign countries as well.

On a number of occasions during the year information on DBS operations was assembled for reporters and editors, resulting in knowledge of the Bureau's activities being circulated to a wide audience. In addition, articles were prepared by the staff of the Division in co-operation with other DBS officers and subsequently published. The DBS Daily and Weekly Bulletins, which are essentially summaries of the DBS statistical output, continued publication with average press runs of 1,575 English and 325 French for the DBS Daily Bulletin and 1,950 for the DBS Weekly Bulletin. Subscribers to these bulletins are mostly users of statistics but include also many newspapers, magazines and other information media.

A second service bulletin for the field of energy statistics was established during the year under review, the first one on food and beverage industries having been introduced the previous year. This new service bulletin was well received within the industry and was circulated to 1,100 users of DBS statistics in this field. A third service bulletin for metal manufacturers is now being established.

The Division was heavily involved during the latter part of the year in publicity preparations for the 1966 Census of Canada, under the guidance of a Publicity Committee. An advertising campaign was prepared involving the use of daily newspapers, weekend and farm papers and radio. Work was also begun on a press kit, pamphlets, photographs on the subject of the Census, television slides and posters.

LABOUR DIVISION

The year 1965-66 was a particularly significant period for the Labour Division as a start was made in instituting a comprehensive program of research and analysis in labour statistics, revision programs were completed for major statistical series and several new statistical surveys were inaugurated.

The Research and Analysis Section is responsible for undertaking studies in the general field of labour statistics, using data produced in the Labour Division and in other Divisions of the Dominion Bureau of Statistics. In this respect, three senior university staff members were engaged for the summer of 1965 to carry out the following research projects: (a) a job content analysis of the Canadian economy (1941-61); (b) work experience of the adult population, 1960 and 1964; and (c) mobility patterns of professional engineers. In addition, the Assistant Director carried out a series of liaison meetings and talks with Canadian universities and attended conferences relating to this particular area of DBS responsibilities.

Special questions regarding educational attainment were added to the February 1965 monthly Labour Force Survey. Tabulation of these data in late summer provided the basis for a first draft analysis of the educational level of the native-born and post-war immigrant population and labour force. A background report on job vacancy surveys was prepared for presentation to the Working Committee on Labour Statistics in December and is now being utilized for further developmental work in co-operation with the Department of Manpower. A Census Monograph on the Canadian Labour Force is nearing completion.

A special study of the older worker was prepared for the Canadian Welfare Council and presented to the Conference on Aging in January 1966. A study on the labour force participation of women was prepared and presented to the Women's Bureau Conference, Department of Labour, in March 1966.

Tabulations from the special questions on geographic mobility added to the October 1965 Labour Force Survey are being analyzed and prepared for publication. Progress in carrying out the program of analytical and developmental research projects continued to be seriously hampered unfortunately by lack of qualified staff.

The Employment Section continued to collect and publish employment indexes, statistics of hours and earnings, and labour income as well as produce employment aggregates on an industry and geographic breakdown. A major program extending over a five-year period to revise the monthly employment, hours and earnings statistics to the 1960 Standard Industrial Classification and 1961 time base was completed during the year. This opens the way for publication of a document providing monthly and annual revised data for 1961-65 inclusive in mid-April 1966; at the same time the regular monthly statistics will be published on the revised basis, commencing with the January 1966 survey. Revised data for the period 1957-60 inclusive will be released later in 1966. The estimates of employee aggregates by industry and province have also been revised to the 1960 Standard Industrial Classification commencing with the January 1966 estimates. A significant improvement in the monthly computer and tabulation program for employment, hours and earnings was introduced with the January 1966 survey. It is expected that the substitution of a single computer program for two existing programs will result in substantial gain in timeliness in releasing the published data each month.

In co-operation with the Sampling Survey and Research Staff, plans have been developed for testing a program for automating the mailing and follow-up phase of the large firm monthly employment and payrolls survey using computer print-outs and high-speed addressing equipment. If tests prove the feasibility of this program, it may be adopted in other divisions of the Bureau. The development of a program to completely computerize the sample rotation, selection, mailing and tabulating of the small firm sample frame survey was well advanced during the year with work currently proceeding on transferring all the identities to computer tapes. It is expected that the full program will be tested by the end of 1966.

During the year, new surveys of employment were introduced covering hospitals, elementary and secondary schools, universities and private schools, to fill gaps in the community services sector. This development represents a substantial advance towards the objective of covering in the monthly estimates the total non-agricultural industrial employment.

In co-operation with the Economics and Research Branch of the Department of Labour and in consultation with the Canadian Labour Congress and the Canadian Manufacturers' Association, a mail survey of "Employer Expenditures for Selected Employee Benefits" (fringe benefits) has been planned, to be carried out in May 1966. This test survey which was undertaken as a result of widespread demands by both management and labour, to provide information regarding non-wage labour costs, will cover 150 industrial establishments in manufacturing and will provide the basis for establishing the feasibility of full-scale surveys in 1967 or later.

The Unemployment Insurance and Pensions Section compiles and publishes statistics reflecting the operations of the Unemployment Insurance Commission and the National Employment Service. In addition, a program of private pension plan statistics is carried on. During 1965-66, following a series of meetings of the Interdepartmental Committee on Pension Plans, a major survey of coverage of some 16,000 pension plans in Canada was developed and carried out in order to establish basic statistics immediately prior to the introduction of the Canada and Quebec Pension Plans. These statistics will provide essential benchmarks by which to measure the impact over time of the Canada and Quebec Pension Plans. Following consultation with the Canadian Labour Congress and other interested organizations, a program of research studies into the provisions of certain types of plans has been developed. In the annual trustee pension plan survey, significant data on segregated funds of insurance companies were established for the first time.

In the area of Unemployment Insurance Commission and National Employment Service statistics, all major series have now been converted to computer processing. Special studies were undertaken at the request of the Interdepartmental Committee on Unemployment Insurance studying amendments to the Unemployment Insurance Act. Technical assistance and advice was given to the Unemployment Insurance Commission and the Department of Insurance in surveys of agricultural employment designed for possible inclusion of this industry under unemployment insurance. A number of special studies were carried out for federal and provincial government agencies on such problems as small local office area data, insured employment in fishing and logging industries, duration of disqualification, growth of the insured population and long-term beneficiaries.

MERCHANDISING AND SERVICES DIVISION

By Census surveys every five years, and sample and special trade surveys annually, quarterly, monthly or weekly, as the need dictates, the Merchandising and Services Division produces statistics on retail and wholesale trade as well as a large number of the service trades. Information is obtained on the volume of business, inventories owned, number of people employed, payroll and other operating expenses, profit margins, credit extended, kinds of merchandise handled and services provided, the nature of markets served and size of business units. The structural characteristics of merchandising and service businesses are described and the identification of changes through time are emphasized in business structure, organization and practice. There are also periodic surveys covering topics such as advertising expenditures, the channels of merchandise distribution and consumer credit granted by financial institutions which require the extension of surveys somewhat beyond the limits of the merchandising and service trades.

During the year, the 1961 Census of Merchandising and Services was practically brought to completion and plans were begun for the 1966 Census. Thirty-six bulletins reporting the results of the 1961 Census were prepared

for printing. These included two retail and one service trade bulletin with establishment statistics; one retail establishment bulletin and the introductory and analytical review bulletins for retail trade; three wholesale bulletins dealing with location statistics and two dealing with establishments; six bulletins giving operating expenses of the service trades in considerable detail; a special bulletin reporting on certain transportation, storage and communication industries surveyed by the Census; a report on the channels of distribution and a market data handbook; fourteen bulletins showing wholesale gross margin and operating expense data; and the wholesale and services summary and analytical review bulletins.

The materials and procedures for the 1966 enumeration of merchandising and service trades were prepared during the year and plans were made for distributing the folios to enumerators. Preliminary drafts of census questionnaires were drawn up and discussions were held with the business community; as a result a start was made on the revision of the kind of business classifications. Publicity for the Merchandising Census was also planned.

In connection with current statistics, the standard monthly and quarterly series were maintained and published, the samples used being those devised from the Census of 1951. Developments in current statistical surveys brought about a 55 per cent increase in the mailing list of respondents in the year from about 53,000 to 83,000. Progress was made with the new retail trade sample based on the Census of 1961, but difficulties not anticipated a year ago have prevented the new sample from becoming operative. It is expected that monthly estimates will begin to flow from the new sample in the early fall of 1966. The difficulties are due mostly to the introduction of computer applications at all stages of the work including the preparation of monthly estimates, but this investment will result in long-term improvements in the statistics and resource saving. The reports on *Corporate Chain Stores* and *Shopping Centres* for the years 1961 to 1963, withheld because of the delay in releasing estimates from the new sample, were published with the necessary revisions. Annual reports on all the sectors of retail trade for years subsequent to 1961 will be released as soon as the new retail sample produces satisfactory results. The necessary revisions were made to the retail trade estimates for the 1951-1961 intercensal years to bring these into line with the results of the 1961 Census.

A new monthly sample survey of wholesale trade establishments is being designed. The sample will be drawn from the 1961 Census and will give somewhat more trade detail than the sample which has been projecting the 1951 Census results. An improved sample survey of restaurants is being instituted. These new samples should be producing estimates for publication by the end of 1967.

Regarding the retail trade operating results surveys, the first three-year cycle, designed to cover one-third of the trades annually, will finish with the 1965 survey. The food trades were surveyed for 1963; general merchandise stores, apparel and accessories stores, and the hardware and home furnishings group of stores were covered in 1964; the remaining trades, which include the

automotive group, drug stores and fuel dealers, are left to report for 1965. Where significant numbers of stores exist, data are collected for the trade in question and for three types of store operation, *i.e.*, corporate chains, voluntary affiliated independent stores and non-affiliated independent stores, which are often found to comprise the trade. By the end of the fiscal year 1965-66, the bulletin on the operating results of chain food stores for 1963 was published. More difficulties have been encountered with these surveys than was anticipated and response to questionnaires has been poor. During the year, some progress has been made in solving the problems and all the 1963 and 1964 bulletins should be published by the end of 1966. It should be noted that the operating results surveys cut across other regular surveys such as voluntary chain stores, independent retail stores and corporate retail chain stores. To avoid the adverse effect of double canvassing, the operating results questionnaires were designed to yield data required for the other surveys. Although it was the intention to extend the voluntary chain store survey to all trades where this mode of operation existed, survey difficulties have forced a temporary halt to this project. A concentrated effort is being applied to iron out the problems and present plans call for the publication of data on the food trades for the years 1963, 1964 and 1965 in one bulletin.

The 1964 reports on the established annual surveys of hotels, power laundries and dry cleaners and dyers, retail chain stores, shopping centres, vending machine operators and the occasional survey of funeral directors were a few months away from publication at the end of the fiscal year. Except as indicated in this report, all other reports on established annual surveys were published by the year end.

Development work continued on the wholesale trade annual survey. For 1964 the survey was extended to cover all types of wholesale operation, *i.e.*, co-operative marketing associations and other dealers in primary products, wholesale merchants, agents and brokers, manufacturers' sales branches and petroleum bulk tank plants and truck distributors. Towards the end of the year, reporting schedules were mailed to respondents to obtain data for 1965. The normal difficulties of instituting a new survey are being encountered but it is hoped that the initial report containing data for 1963 and 1964 will be published by the close of 1966.

Arrangements have been made to produce an annual report on advertising expenditures in Canada. The first will deal with 1964 and release is scheduled for mid-summer of 1966. It will be similar to former occasional reports on this subject with the one exception that internal advertising costs of firms, and advertising cost ratios by industry will not be available every year. Statistics on internal advertising costs entail a survey of about 20,000 respondents and plans have been made to carry out such a survey for the year 1965. Therefore, for 1965 the full range of data on advertising expenditures will be available.

The phenomena with which statistics deal must be rigorously defined and special attention was given to improve and bring up-to-date the definitions of voluntary chain stores, department stores and vending machine operators. In all cases, discussions are held with a wide range of experts and members of business and industry.

Work is continuing on the census monograph *Trends in Canadian Merchandising 1930-1961*, and it is expected to be ready for publication by the end of the next fiscal year. The Division has prepared an article on *The History of Retailing, 1867-1967* for incorporation in the special centennial volume. An article was prepared on *Shopping Centres in Canada* for publication in the Canadian Statistical Review.

The Research and Development Section continued the study of productivity in the distributive trades. A paper on the measurement of productivity with particular reference to retail trade was circulated among DBS officers. In addition, an intensive study of wholesale trade data is progressing. Research is being continued on employment and payroll statistics for the distributive trades with emphasis on deriving a satisfactory means of measuring labour input. The conceptual problems relating to the measurement of net distributive output were receiving special attention. A study is also being made of the changing commodity content of important retail trades and the significance of this for the channels of merchandise distribution. The Section is concerned with an analysis of changes taking place in the structure and performance of certain retail and wholesale trade institutions, e.g., the emergence of voluntary chain stores, discount houses, co-operative associations and the changes in the wholesale functions as performed by various intermediaries.

The joint use of merchandising statistics collected by other departments of government, both federal and provincial, has continued to receive attention. Lists have been received from the Alberta Provincial Bureau of Statistics which make it possible to check the 1966 Census enumeration of retail trade in that province. It is anticipated that before long Alberta and DBS will be able to co-operate fully in an annual survey of retail trade, eliminating the duplicating feature which exists where a provincial and federal department conduct similar surveys. Progress is being made for similar arrangements with Nova Scotia, New Brunswick, Prince Edward Island and Ontario but the point has not been reached where there is an interchange of data. Initial discussions have taken place with the remaining provinces and officers are encouraged by the interest shown in this project. The Division and the Quebec Bureau of Statistics are co-operating in the annual survey of hotels and it is now necessary for Quebec hotels to file only one statistical report in order to comply with the requirements of both provincial and federal surveys. The overall aim is to economize on statistical resources at all levels of government, thus reducing the necessary reporting by business.

NATIONAL ACCOUNTS AND BALANCE OF PAYMENTS DIVISION

This Division, in its general responsibilities, is concerned with a wide range of economic statistics which includes the principal comprehensive statements and indicators relating to the Canadian economy. The preparation of these statistics for the publications which are described below involves the co-ordinating, processing and analysing of information from a variety of sources as well as some direct collection. The scope of information covered in these publications extends over the whole ambit of the organized output of

the Dominion Bureau of Statistics and beyond, providing a set of macro-economic data relating to the Canadian economy. The data are used by economists and others concerned with observing the course and performance of the Canadian economy and advising on policy.

In addition to the principal products of the Division which are the following publications, an important aspect of the Division's work is the provision of day-to-day assistance to many users. The regular publications include quarterly and annual reports on the 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*; the *Index of Industrial Production*, including quarterly indexes of non-agricultural real output; *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. It 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.

Recent extensions of government activity in the sphere of economic analysis and investigations have augmented demands for macro-economic data produced in the Division such as the national accounts and real output. These data and many supplementary series relating to them, including seasonally adjusted series, are parts of the systems of economic intelligence used by official groups concerned with considerations of long-range economic problems as well as of more current trends. The meeting of these new requirements for data as well as the continued assessment and use of new statistical data originating in other divisions of the Bureau in the construction of economic accounts has been absorbing increasing resources. For example, the development of statistics of financial flows involves frequent consultations and is leading to reassessments of certain aspects of the economic accounts already developed. Growing public interest in the presentation of government accounts in a national accounting framework has also drawn more attention to these statistics. In addition, new research by the United Nations and other international groups has been leading to intensive reappraisals of the interrelationships of all macro-economic statistics with the object of extending their usefulness in economic analysis.

In the balance of payments field, there has continued to be close public attention to statistics relating to this subject. Contributing to this have been the passage of the Interest Equalization Tax legislation in the United States in 1964 with the granting of exemptions to Canadian new issues; the change in the position of sterling in the latter part of 1964; and later the announcement in February and December 1965 by the United States authorities of guideline

measures designed to bring the United States balance of payments more into balance. As a result of this international background, normal demands for balance of payments information have been increasing.

The principal recent developments in information in the balance of payments field have been some extensions in data relating to short-term capital movements and the quarterly publications of the geographical distribution of net movements of capital. These developments proved to be particularly timely in 1965 when certain groups of international capital movements were under close observation as a result of the United States guidelines, changing money markets, and the directional shifts of capital flows. The preparation of an historical volume containing revised statistics on the balance of payments and international investments is continuing.

In the field of travel statistics new monthly details are now available on the countries of origin of non-immigrant travellers to Canada from overseas countries, and new arrangements have been introduced for sampling the expenditures of Canadian travellers returning from the United States. International investment records are being jointly used with the Industry Division in assembling statistics relating to manufacturing in plants owned by foreign controlled companies.

PRICES DIVISION

The function of the Division is to collect, compile and publish data on prices and consumer expenditure. 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 consumer expenditure are conducted biennially to provide a basis for revising the item content and weights in the Consumer Price Index. The resultant body of information on expenditures of Canadian families is published and widely used by business organizations and welfare agencies.

During 1965, the Division was reorganized and now consists of six sections. The terms of reference for the Retail Prices, Consumer Expenditures and International Prices Sections remains essentially unchanged. The Central Research group which is responsible for formulating and co-ordinating divisional programs of research and development, was officially designated a section. Expansion in the scope and form of industry and commodity wholesale price statistics relating to capital expenditures, manufacturing and agriculture gave rise to the necessity of co-ordinating and integrating this aspect of the Division's work. As a result, the Wholesale Prices and the Farm and Special Purpose Prices Sections have been re-organized on a functional basis. The new Wholesale Prices Section encompasses the professional staff responsible for developing and analyzing wholesale price statistics. The Price Surveys and Operations Section comprises the professional, technical and clerical staffs engaged in implementing and maintaining price surveys, evaluating reported prices for comparability, and carrying out the continuing production of all wholesale price indexes.

The regular monthly issues of *Prices and Price Indexes*, which include all price statistics published by the Division, and the earlier released monthly issues of *Price Movements* in which selected sensitive price indexes are first published, were continued. Publications of a non-continuous nature are described in the following reports for the various sections of the Division.

The price collection and compilation program in the Retail Prices Section was strengthened in two major respects in the fiscal year 1965-66. Firstly, attention was focussed on field operations through a series of meetings with the field staff involving intensive review of commodity specifications and of enumeration procedures. Particular emphasis was placed on the role of part-time enumerators, in anticipation of the more routine aspects of price collection being performed by them. This would allow the permanent staff to devote more attention to the complexities of modern merchandising and related market changes which, in turn, will result in improved price reporting.

The second aspect of the retail prices program which received special attention during the year under review was the application of mechanical data processing. This changeover involved the development of specially designed price schedules and the preparation of special programs to calculate the Consumer Price Index and to simultaneously produce much additional valuable price information. As a part of the mechanization program, particular attention was paid to staff training to facilitate the conversion from hand tabulation procedures. This change in data processing methods, initiated during the current period, is part of a continuing conversion to more modern techniques.

Three special studies were undertaken during the year. These included special food pricing in two major cities; special regional price comparisons in Manitoba, British Columbia and Alberta and the initial analysis of 1962 Urban Family Food Expenditure data to provide a basis for updating the "basket" used in Consumer Price Index calculations.

Activities in the Family Expenditure Surveys Section centred around the processing of the 1964 survey which had been conducted early in 1965. It is expected that tabulations from this survey, which referred to families and individuals in eleven urban centres, will become available in the second half of 1966. No surveys were undertaken during the year under review. Planning was begun for an experimental survey program in 1967, in which efforts will be concentrated on evaluating alternative methods of data collection, as a first step towards preparation for a national survey. The Chief of the Section spent a short time in England visiting the departments concerned with family expenditure surveys in order to obtain first-hand information concerning the United Kingdom program of continuing surveys in all its phases, and with particular reference to the effectiveness of the account-book method in relation to specific uses.

Two publications on family expenditures were issued in the year under review, *Urban Family Food Expenditure 1962* and *Farm Family Living Expenditure 1958*. A third report containing results from the 1962 survey of the complete family budget was in preparation. The 1962 surveys, taken for the

purpose of updating expenditure patterns for use in revising the Consumer Price Index, referred to a restricted group of families in seven major cities. The report on farm family living expenditure presented data obtained from the 1958 Farm Expenditure and Income Survey, conducted under the direction of the Agriculture Division. For the first time in twenty-five years, information on the living expenses of farm operators' families were made available, along with comparisons of farm and urban expenditure patterns.

The International Prices Section, during the year under review, organized and analysed detailed surveys of comparative living cost conditions at forty-five foreign cities to establish appropriate allowance levels for Canadian Government personnel serving abroad. In addition, for more than one hundred other foreign centres, the results of previous comparative living cost studies were reviewed and updated. In connection with this work, officers of the Section visited Canadian overseas offices throughout Latin America and the Caribbean area. In addition, the Section carried out a survey on behalf of the Department of National Defence, of the accommodation costs being experienced by military personnel serving at various bases in Western Europe.

During the 1965-66 fiscal year the Wholesale Prices Section carried forward the revision of Industry Selling Price Indexes relating to manufacturing to a 1961 price reference and weight base. The number of prices included in each industry index has also been expanded. The feasibility of producing selling price indexes relating to the establishment for use as deflators in Industrial Output and Productivity programs was studied intensively, as a preliminary step to producing them on a continuing basis.

Annual price indexes relating to distribution systems, transmission lines and transformation switching stations, components of the Electrical Utility Construction Price Index will be published in late 1966. The reference paper will include data covering the period 1956 through 1965 on a 1961 time base. Revised Highway Construction Price Indexes on a 1961 time base will be published in the 1966-67 fiscal year, for Newfoundland, Nova Scotia, New Brunswick, Ontario, Manitoba, Saskatchewan and British Columbia. The development of such indexes relating to Quebec and Alberta is in progress. A revision of the price sample for the Residential Construction Price Indexes was begun in the year under review, to obtain regional price coverage reflecting wholesale or manufacturers' sales to residential construction.

The Index of Prices Paid by Farmers will be produced and published monthly instead of three times a year as at present. The item content and weights relating to farm operation inputs have been updated. As a consequence, the revision of the index was pursued during 1965-66 with particular emphasis placed on the revision of price samples.

The organization of the new Price Surveys and Operations Section was undertaken in the 1965-66 fiscal year on the basis of functions performed. The responsibilities for screening prices and for calculating wholesale price indexes were separated to afford more specialization and efficiency in both areas. The resultant intensified program of commodity intelligence undertaken by the commodity specialists within the Section will facilitate the evaluation

of reported prices for comparability and improve the reliability of the ensuing wholesale price indexes. Apart from the advantage of increased efficiency in the production of indexes at the present time, the centralization of calculations is a necessary step towards the conversion of such operations to computer processing.

The questionnaires used in the collection of prices in the Industry Selling Price Indexes and in the General Wholesale Price Index were revised to promote an awareness in respondents to these goals and thus to facilitate their attainment.

SPECIAL SURVEYS DIVISION

Through its eight Regional Offices, the Special Surveys Division is responsible for all field survey activities of the Dominion Bureau of Statistics. The Regional Offices employ some 800 part-time interviewers, located throughout all parts of the country, who interview a scientifically selected sample of some 34,000 households each month, to obtain current information on labour force activity and related matters. In addition, regular staff members collect monthly data on retail prices and services for the use of the Prices Division in compiling the Consumer Price Index. Business establishments are also contacted in connection with the completion of reports required by other divisions of the Bureau. Each office also maintains a file of all current DBS publications for the convenience of users of DBS data in that region.

In the monthly Labour Force Survey referred to above, 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 enquire about rents paid and the information so obtained is used to compile the rent components of the Consumer Price Index. From time-to-time special questions are added to obtain a variety of other information. In the May 1965 Survey, questions dealing with household facilities and equipment available in Canadian homes were asked. In the September 1965 Survey, at the request of the Department of National Health and Welfare, questions dealing with the smoking habits of Canadians were inserted. In the October 1965 Survey, questions dealing with residential and job mobility were included. In January 1966, questions dealing with education were asked – the level attained, the provinces where schooling was obtained and the level attained by parents. In March 1966, questions on income were included.

During 1965 the task of completely redesigning the sample frame, from which the labour force sample is drawn, was finished. This project was started during 1963 and was completed, province by province, over a period of about two years. The new sample frame makes use of 1961 Census data and incorporates a number of new technical features which together have improved its efficiency and accuracy. Before being adopted in each province, the new sample design was completely field-tested over a three-month period and detailed comparisons were made of the results obtained from the new sample and the old.

One important feature of the new design is the ease with which it lends itself to modification as abnormal shifts and growths in population occur over time. The new sample design automatically reflects population growth. However, this can be more accurately done under the new sample design by means of simplified procedures for modifying the sample in those city areas experiencing heavy new residential construction. In most large cities, large apartment buildings are sampled separately and as new ones are constructed, sampling is automatically extended to cover them also.

In all Regional Offices during the last six months of the fiscal year, additional positions were established to carry out preparatory field work for the 1966 Census of Canada to be conducted in June. This work involved the clarification of Enumeration Areas boundaries and the interviewing of candidates for appointment as Census Commissioners.

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 Division. The two Divisions work together to improve the processing services of the Bureau using the equipment most suitable for the purpose. A senior committee, under the chairmanship of the Dominion Statistician, meets monthly and guides the allocation of computer and programming time. Long-run schedules for computer utilization are being developed in order to ensure orderly utilization of these facilities and to ensure proper priorities.

Tabulating Services Division

The subject-matter divisions of the Bureau gather data which form the basis for statistical tables and the Tabulating Services Division provides a service, using a variety of methods, to process the data reducing it to more manageable form for further analysis.

When aggregates only are required involving a minimum of cross-classification, they are produced directly as a clerical operation by means of peg-bar methods of compilation using comptometers and desk calculators. This group of operators handles a considerable volume of data, particularly where monthly, quarterly and annual tabulations of a repetitive nature constitute a large part of the work, as well as special projects involving more complicated calculations.

Many of the Bureau projects involve more difficult manipulation of the data and a number of more complex cross-classifications. For these, the Division uses a wide variety of unit record (punched card) equipment and electronic computer systems. 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. Editing of the data by mechanical means and seeking out inconsistencies, which may arise through misinterpretation of instructions and definitions governing the collection of data, as well as errors in recording answers, are important functions

of the unit record sections and the computer centre. Before the actual tabulation of the totals, the punch cards or records on magnetic tape must be grouped and classified by the various characteristics of the data.

The greater part of the time on the installation is allocated to the work of the Dominion Bureau of Statistics. However, some requirements of other government departments and agencies have been accommodated. On the other hand, the Bureau has made use of computer facilities at other installations where they were more suited to particular applications. These arrangements are made through the Central Data Processing Service Bureau. The DBS installation consists of an IBM 705 computer system and two IBM 1401 computer systems with support equipment consisting of punch card equipment, such as sorters, reproducers, collators and card proving machines. All but two of the punch card tabulators formerly used in the Division have now been released. Throughout the year, the computer operations were on a 24-hour day, 5-day week basis with some week-end work as well, yielding a total of 5,100 productive hours on the 705 system and 10,600 productive hours on the 1401 systems. During the year, approximately 31,000,000 punch cards were used and about 2,200,000 sheets of original tabulations were produced.

The technique of using a medium-sized computer to simulate the action of various types of unit record equipment was exploited and refined during the year. Now almost all work formerly accomplished on unit record tabulators has been transferred to the new processing methods. Some processing timetables were dislocated to a small degree but the transfer is now complete and the service provided is either equivalent or better with a decrease in operating costs. This technique, developed within the Dominion Bureau of Statistics provides a satisfactory transitional method until programmer time is available to program a continuing operation. It is also an effective method for handling one-time applications where programming effort would be excessive in comparison with machine time.

In addition to the regular projects of the Bureau, a number were undertaken for other government departments and agencies on a cost-reimbursement basis under individual agreements.

Central Programming Division

The principal functions of the Central Programming Division are systems analysis in collaboration with subject-matter divisions, and programming for projects approved as computer applications by the DBS Electronic Computer Committee. In some cases investigation indicates that punch card or other methods of processing can produce the desired product just as timely and more economically than could be done by computer processing. An attempt is also made to eliminate routine types of manual editing, coding and other clerical operations by substituting computer processing, thus freeing clerical staff for other aspects of statistical data collection, processing, analysis and publication.

The Central Programming Division wrote a total of 470 programs in Fortran, Cobol and Autocoder languages during the year under review, to be

run on the DBS computer installations as well as on the IBM S/360 computer at the National Research Council and the CDC 3400 computer at the University of Montreal.

The Division consists of two sections: the Data Programming Group and the Scientific Programming Section which works closely with the Sampling and Survey Research Staff, the Research and Development Staff and economists and statisticians in subject-matter divisions, to produce and modify a variety of programs for analysis of tabulated data, seasonal adjustment of time series, and the institution and improvement of sampling technique. During the year approximately thirty per cent of the division's resources was expended on the work of the 1961 and 1966 Censuses; sixty-two per cent on other DBS applications and eight per cent on non-DBS requests.

In order to meet programming commitments for the 1966 Census of Canada, it was necessary to curtail or delay some 1961 Census requests for special cross-classification tabulations. Programming for 1961 Census monograph requirements was completed during the year but requests for special tabulations from Provincial Governments, Metropolitan Area Planning Boards, and Federal Government Agencies still continue as do requests for summary record tape files.

A Computer Applications and Requirements Committee within DBS was established during the year with senior members of the programming staff assuming major responsibility for assessing DBS computer requirements projected over the next ten years.

Programming resources continue to be a limiting factor. Expansion in government as well as industrial computer installations has increased the demand for programmers. During the year under review, there were fourteen additions and seven separations to the staff. DBS continues to co-operate with the Civil Service Commission in providing training to untrained personnel obtained through "trainee competitions". These potential programmers naturally develop more slowly than persons with previous experience and place a heavy burden on the senior staff to provide "on-the-job" training.

During the year under review, Cobol courses were given to approximately half the staff, and six experienced programmers and analysts attended basic programming courses on the IBM S/360 computer.

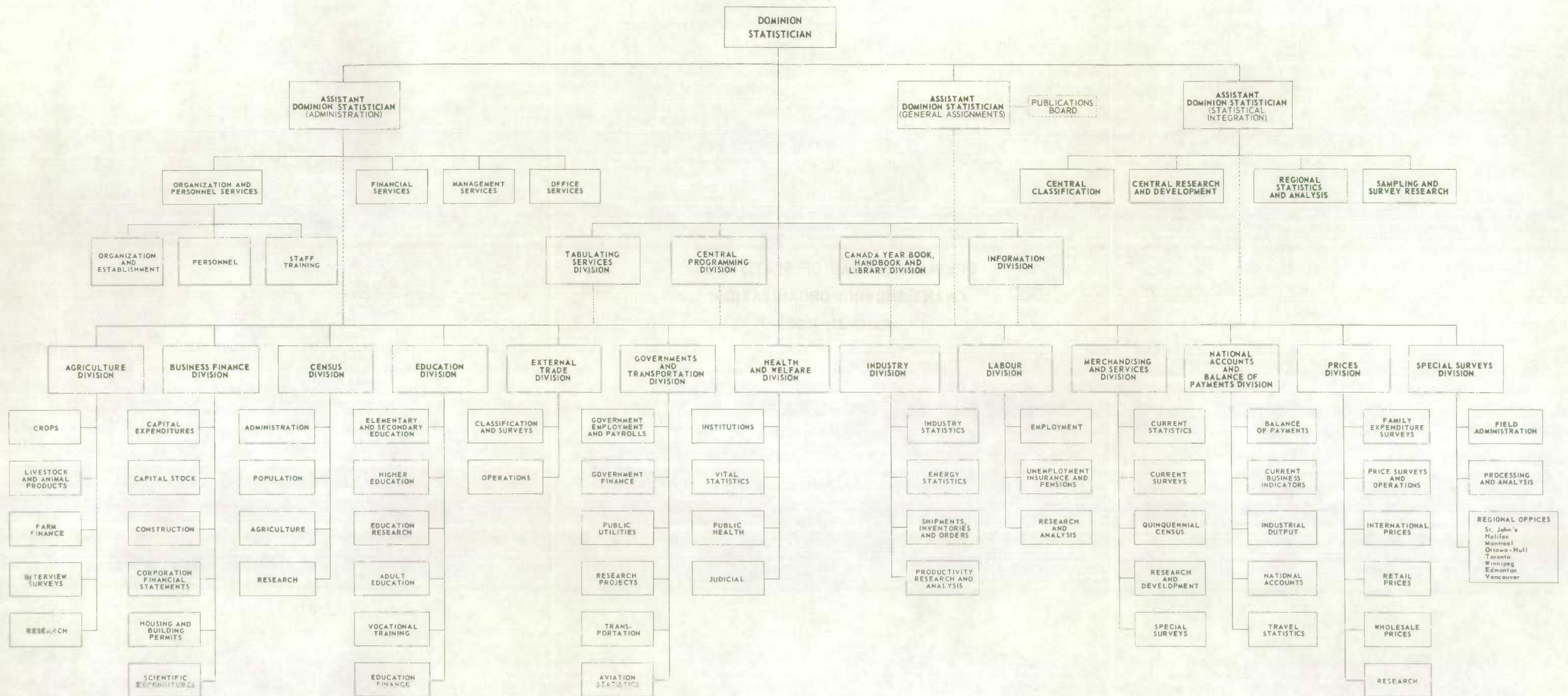
An official from the Greek Government, who was interested in the problems connected with setting up a computer centre for statistical services, especially for a national census, spent three weeks with the Central Programming Staff in DBS.

ADMINISTRATIVE SERVICES

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

DOMINION BUREAU OF STATISTICS
CHART SHOWING ORGANIZATION
March 31, 1966

DOMINION BUREAU OF STATISTICS
GENERAL ORGANIZATION



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.

The staff employed on continuing operations at March 31, 1966 numbered 2,248, an increase of 191 from the number employed on March 31, 1965. During the year, 61 statisticians and economists were recruited and 39 were separated. There were 39 research assistants engaged on summer projects. Throughout the year 228 promotional competitions were conducted. The 1961 Census temporary staff at Head Office, which numbered 107 on March 31, 1965, was reduced to 41 by March 31, 1966. There was also a temporary staff of 183 engaged on preliminary work for the 1966 Census on March 31, 1966. The establishment authorized for the fiscal year was 2,360 positions and 53 man-years of casual clerical assistance for continuing operations, 40 man-years for 1961 Census processing, and 136 man-years for 1966 Census work.

Staff training and development continued with the DBS Training Officer acting mainly as an adviser to line management on employee development and related activities, and on technical training at the divisional level. He is also responsible for directing supervisory and management development programs and participates in management consultation activities, as well as employee relations, counselling and guidance activities.

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

Management Services

During the year a Management Services Section was established for the purpose of providing a specialized analytical service to assist officers of the Bureau in improving the efficiency of their statistical processing operations. A number of projects have been undertaken, principally in the area of integrating manual clerical operations with electronic data processing and other forms of mechanization.

Suggestion Awards

During the year, 56 suggestions from DBS employees were considered by the Suggestion Award Committee of which 27 were carried forward from the previous year. Of these suggestions, four were approved for awards valued at \$265.00 with an estimated saving to the Bureau of \$2,828.00. At the end of the year ten suggestions were still under investigation.

Financial Services

This section consists of two units, one concerned with the financial operation of the Bureau including the co-ordination of the estimates; the second is concerned with the sale and distribution of Dominion Bureau of Statistics publications.

The Accounts Unit examines and controls expenditures, audits travel claims and commercial accounts, compiles cost distribution statements and interprets financial regulations. The 1966-67 financial estimates were prepared on both standard object and program basis as a trial run for the eventual complete control on a program basis.

The Publications Distribution Unit maintains current mailing and subscription lists for distribution of publications. During the fiscal year under review, the unit dispatched 1,321,751 individual pieces of mail and received 19,848 mail orders. The subscription mailing list now contains 167,000 addressograph plates.

Office Services

In April 1965, the Typing and Transcribing Services Section included four typing units, one on each floor of the DBS building to service a pre-determined number of subject-matter divisions. In August 1965, a fifth typing unit was established and located in Number 8 Building to service the Census Division. All units are operating under a line-count system whereby production is expressed in terms of lines typed. The number of lines produced in these units totalled 6,723,588. The number of lines produced by assigned staff outside the units totalled 558,854.

The Printing Liaison Services Unit, in addition to maintaining liaison with the Vari-type and Printing Sections of the Canadian Government Printing Bureau situated at DBS, is responsible for examining manuscript of DBS publications being submitted for composition and advising on layout, format, standards, stock and binding of publications as well as co-ordinating workflow and assigning printing priorities. Records of printing progress of the publications are kept from the original requisition through proofreading, meeting deadlines to the finished product. During the 1965-66 fiscal year, this Unit processed and prepared for printing 16,690 pages of copy.

The Office Services Section prepared various layout studies of the DBS building and Number 8 Building in order to accommodate the staff.

The Drafting Unit prepared 2,401 economic charts, maps, diagrams and various illustrations for the divisions of the Bureau and other departments and agencies of the Government. In addition, the Unit completed a series of charts for the Royal Commission on Health Services as well as a series of colour wall charts for the Centennial Commission.

During the period under review, 662,621 photocopies were completed to fill 23,290 requisitions in the Xerox and Banda Duplicating Unit.

In the Forms Design Unit work continued on the simplification, standardization and revision of forms and publications. During the year under review, the Unit processed 3,669 forms consisting of 11,940 pages of reprints, revisions and new or redesigned forms. In addition, 518 specialty forms and envelopes were prepared and 2,275 other miscellaneous printing jobs processed.

In the Addressograph, Mail and Supplies Unit 19,375,657 forms were addressed for the various divisions of the Bureau. In addition, 309,658 plates were embossed, 141,647 corrected and 308,614 deleted. In addition 236,629 pieces of mail were enveloped by hand and 3,050,900 were inserted by machine.

During the year 25,815 bags of mail were deposited with the Post Office and 8,531 were received. In addition to the general mail addressed for delivery in Canada, 10,241 pieces of registered mail, 15,477 air mail, 956 special delivery, 5,956 parcel post and 93,928 foreign mail were dispatched. Also included in mail dispatched were 2,188 bags containing 4,645,287 letters for the Department of Agriculture.

The Supplies Unit submitted 1,031 printing and stationery requisitions to the Department of Defence Production, for an estimated value of \$726,247. The supplies inventory as at March 31, 1966 was \$34,085; the annual stock turnover rate, therefore, was 21.3. Replacement value of DBS office machine and equipment inventory, based on original cost, was \$706,382.

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