

1914.
NEW ZEALAND.

GOVERNMENT STATISTICIAN

(REPORT OF) ON VISIT TO STATISTICAL OFFICES OF THE COMMONWEALTH OF AUSTRALIA AND AUSTRALIAN STATES.

Laid on the Table by Leave of the House.

MEMORANDUM FOR THE HON. THE MINISTER OF INTERNAL AFFAIRS.

Registrar-General's Office, Wellington, 25th June, 1913.

I BEG to report that, leaving Wellington on the 25th April last, I visited the Statistical Offices of the respective Australian States at Hobart, Adelaide, Melbourne, Brisbane, and Sydney, and of the Commonwealth at Melbourne, with the view of ascertaining the methods there adopted in the collection and tabulation of their statistics. Everywhere I was met with the greatest courtesy, and every facility was given me of investigating the methods, &c., in use. Matters of mutual interest, difficulties met with, &c., were freely discussed. The opportunity thus afforded me of obtaining a knowledge of the experience of the principal Statisticians in Australia, and an insight into the practical part of their work, has been most valuable, and will, I hope, prove fruitful in the improvement of our statistics in the future.

I do not think it desirable or necessary to go into minute details in regard to all matters investigated and noted during my visit, but I should like to briefly refer to some of our statistics which could be very largely improved by the adoption of the methods followed in Australia.

I was greatly impressed with the fact that in Australia much greater importance is placed upon statistics—greater use is made of them, and they are more complete, particularly as regards production and trade. The Statistician has greater control and supervision over all statistics, and, unless actually forming part of the ordinary functions of a Department, the compilation work is done in his office. The Statistical Offices in Australia are much more strongly staffed and better organized, and when this is considered the work of our Statistical Office compares very favourably with that of the Australian Offices.

The services rendered by the police throughout Australia in the collection of production statistics (both agriculture and manufacturing), practically without direct cost to the Statistical Offices, cannot be overvalued. Indeed, I feel confident that without their assistance such complete and such accurate statistics of the country's production could not be issued. If we are to bring our production statistics into line with or near the position of those in Australia, it can only be done by obtaining the assistance of the police, or at a very heavy cost for collection of the data. I was given to understand in Australia that the police administrators welcomed this work, because it took the constable into the country and compelled him to visit all his district at least once a year. It gave him an excuse to visit homes without causing comment in the neighbourhood. It made him more thoroughly acquainted with the people in his district, with whom he could also talk more freely, gaining much information he would probably not otherwise obtain. In this way the work was of some value to him in discharging his ordinary police duties. A most important point which made for efficiency in the collection is that the constable's superior officers take a responsible interest in seeing the work is properly carried out.

With regard to our statistics generally, I think that, with the exception of those dealing with production and trade (imports and exports)—certainly very important exceptions—they compare very favourably with the statistics of Australia; such minor deficiencies as exist will be gradually rectified, and they do not call for special detailed reference here. In regard to the exceptions mentioned, I make the following comments and recommendations:—

1. *Agricultural and Pastoral Production, including Particulars as to Occupation of Land, Tenure, Live-stock, Orchards, &c.*

These statistics were, I found, practically dealt with in the same way in all the Australian States. They are collected each year by the State police. Every holding of 1 acre and upwards is visited and full particulars are obtained of the area occupied, area of each kind of crop culti-

vated and the yield of same, the number and description of live-stock, &c. The information is entered in the collector's book, a single line being devoted to each holding, and each book having provision for a stated number of holdings. The entries are made in such a way as to obviate the necessity for much tabulation when the books are received at the Statistician's Office. The blank books are issued to the police from the Statistician's Office in December of each year along with the books returned for the previous year, or with the names of the holders of the previous year entered in each book, for guidance in the current year's collection. The names of occupiers of new holdings are obtained annually from the Lands Department, and written up in the respective books before issue. The collection is made by the police during January and February, and the completed books returned to the Statistician as soon after as possible. On receipt of the books at the Statistician's Office they are examined, checked, totalled, and summarized to make up the published tables. As the yield of some crops (potato, maize, vine, honey, and fruit) is not available at the time the collectors visit the holdings, this information is collected through the post later in the year in some States, and in others another visit is made by the police for the information. Preharvest estimates of the area sown, and again of the probable yield, for *wheat and oats only*, are made by the Statistician from information collected (through the post in some States and in others by special visit) in conjunction with the actual returns of the previous year.

This system of collection by the police on books has been in force for many years in Australia, and has gradually reached a very high state of efficiency. By means of it the Statisticians there are able to produce most complete and comprehensive statistics as to the country's agricultural and pastoral production and *to follow closely the aggregation or otherwise of holdings*. In some States no payment whatever is made to the police, but in others the Police Department is recouped the actual travelling-expenses incurred in the collection. The expenditure in Victoria (whose system I considered the most suitable for New Zealand) on account of these statistics is stated to be £2,564 per annum, made up as follows: Police expenses, £600; postage, £400; and clerical work, £1,564. It may be of interest here to compare the area and number of holdings of Victoria and New Zealand. Victoria has an area of 87,884 square miles, with 60,240 occupied holdings. The area of the North and South Islands of New Zealand is 102,250 square miles, and according to the census collection there were 73,876 occupied holdings; so that the area to be dealt with in New Zealand is 16·35 per cent. greater than in Victoria, and the number of holdings 22·64 per cent. more. The area of New South Wales is 208,122 square miles greater than New Zealand, or 203·54 per cent. more; but the number of holdings in New South Wales (87,503) is only 18·45 per cent. more than in New Zealand.

The present position in regard to agricultural and pastoral statistics in New Zealand is that every third year a complete collection (estimated to cost about £6,000) from every occupier of 1 acre and upwards is to be made by means of Enumerators specially employed for the purpose, and during the intervening years a collection of returns as to the principal grain and root crops is made through the post. The work of collection is undertaken by the Department of Agriculture, and the tabulation is made in the Statistician's Office. The results obtained by collection through the post are most unsatisfactory and incomplete, and cannot be sufficiently relied on as accurately representing the true facts, while the collection by special enumerators is far too costly to maintain annually. In addition the Department of Agriculture collect and tabulate each year returns of the sheep flocks in the Dominion, publishing in detail the name and address of each owner as well as the number of his flock.

Considering that the agricultural and pastoral products of New Zealand form about 80 per cent. of our exports, I submit that it is of the utmost importance that these statistics should be put on a proper footing. The system adopted throughout Australia of collection per medium of the police has been in operation in some States for over fifteen years. The unanimous testimony is that it is satisfactory in working, gives accurate and reliable results, and, as it at present obtains, is more economical than any other which could be devised. I feel confident that our New Zealand police are capable of doing equally as good service as the police of Australia. I recommend their employment in the collection of these statistics, and the adoption of the Australian methods. I do not think it would be wise, just at first, to make quite such extensive inquiries as are made in Australia, but having once adopted the principles of the system the number of the inquiries could be gradually extended as required and as the collectors became familiarized with the work. The present high state of efficiency in these statistics in Australia has not been attained all at once, but after years of experience and evolution.

Should the Government approve of my recommendations for the adoption of the Australian system, I suggest that the heads of the Police, Agriculture, and Statistical Departments should confer and decide as to the details and inauguration of the system. While believing that, as in Australia, the Statistician should control these statistics, yet I consider that it is in the best interests of the country to have co-operation between the Department of Agriculture and the Statistical Office, so that one collection may serve the needs of both Departments, and that the Statistician may have the assistance of the expert knowledge of the officers of the Agriculture Department. It may also be possible for the field officers of the Department of Agriculture to undertake the collection in some districts and thus relieve the police to some extent, or perhaps they may be able to assist the police considerably if they cannot altogether relieve them. With regard to the latter, I may say that if the field officers of the Department of Agriculture are available and sufficiently numerous for the work of collection their employment would, of course, be preferable to the police, on account of their knowledge of agriculture and stock in their districts. Whichever of these officers (Agriculture or Police) the Government decided to utilize for the collection work would not, of course, affect the system now advocated, which would apply equally well in either case.

2. Industrial Production.

In all the Australian States particulars in regard to manufacturing industries and works (all factories where power is used or where four hands and over are employed) are collected *annually*, showing number of employees, wages paid, power, materials used, output, and value of land, buildings, and plant. The returns are collected by the police and forwarded to the Statistical Office, where, after examination and verification by correspondence if necessary, the particulars are tabulated and published. In New Zealand practically similar particulars are collected by the Government Statistician every fifth year in conjunction with each census, but from all factories employing two hands and over. In addition certain particulars as to hands employed and wages paid are collected by the Labour Department *annually*.

All developments taking place in industrial production can be more closely followed where the material is collected annually, and the quality and accuracy of the statistics published is much superior. This latter point is so important that it cannot be too strongly emphasized. It is better to have no statistics than to have statistics which are unreliable and may be misleading. The manufacturers supplying the returns, and those employed in the collection, become more familiar with what is required. Permanent Statistical officers, continually engaged in examining and dealing with these returns, become expert in the work, which requires skill and a knowledge of industrial conditions. Difficulties are gradually overcome and the statistics improved. The educative value of this continuity in dealing with these returns, and the problems involved, are largely lost when an interval of five years intervenes between each collection. Temporary officers are employed, and the same men are seldom available for consecutive collections. Consequently the experience gained through one collection is largely lost, and it is impossible to make sure that difficulties arising are dealt with in exactly the same way each time. I went to Australia with some doubt as to whether the collection each year of these statistics in such detail was really necessary, and if anything with a predisposition in favour of the quinquennial collection. After discussing the point fully with the Australian officers, I am convinced that if accurate and comprehensive statistics of industrial production are to be produced the annual collection is undoubtedly the best. It is the one adopted in *all* the Australian States, and I recommend its adoption in New Zealand. I suggest that in regard to these statistics also there should be co-operation between the Labour Department and the Statistical Office, so that by means of one return and one collection the requirements of both Departments should be met, in which case it would probably be found best to collect the returns per medium of the Inspectors of Factories. Prior to my departure for Australia the question of co-operation was discussed between the Departments, and it was practically agreed that in the event of their working together the respective spheres of work would be for the Labour Department to undertake the collection of the data, and the Statistical Office to compile the statistical tables therefrom.

3. Fisheries.

In Australia statistics *re* fish-production are mainly obtained from the wholesale markets, but in New Zealand this would prove more difficult, as the conditions of marketing the fish are not identical. At present we have no statistics as to the quantity of fish caught or marketed. The industry is of growing importance, and a quantity of New Zealand fish is sent to Sydney and Melbourne. The question of obtaining proper statistics of the industry should not be delayed much longer. With your approval I should like to go into the matter with the Secretary for Marine (under whose control our sea-fisheries are) at the earliest possible opportunity, with a view of instituting methods of obtaining the necessary data.

4. Forestry.

Similarly in this case no proper statistics are available in regard to the extent of our forests, and I think this matter should also be taken up at an early date. Probably something could be done after the report of the Forestry Commission is received.

5. Trade Statistics (Imports and Exports).

The trade statistics in the Commonwealth are on excellent lines. In regard to imports, the country of origin is shown as well as the country of shipment, while both imports and exports are arranged in great detail according to a standard classification. New Zealand is much behind Australia and the leading commercial countries in that our trade statistics do not disclose the country of origin of the goods imported, and that they do not follow a standard classification. The arrangement of our trade statistics is in accordance with tariff classification, which, of course, varies with every change of tariff. Also, there is too much grouping of commodities, so that the trade in many articles cannot be traced. In addition, the New Zealand trade statistics do not appear to be quite so clearly presented, consequently they are not so readily understood by persons requiring to use them who may not be very familiar with their arrangement. The work, so far as it goes, is, I am sure, as efficiently and economically performed in New Zealand as in Australia, but our statistics are robbed of much of their value on account of the form in which they are produced, and the fact that the country of origin is not disclosed.

Another important point in connection with these statistics, and one which cannot be too strongly emphasized, is the necessity for celerity in their publication. In Australia a fairly comprehensive return of the principal items of imports and exports is published monthly, and the complete returns annually, both of which are issued from the Commonwealth Statistician's Office. These are the only official statements issued, but I understand that in addition the Collectors of Customs make up a return, which is handed to the Press for publication each week, giving figures for the most important articles of export. In New Zealand the Department of Industries and Commerce issue fortnightly a leaflet giving figures for principal articles of export, the Customs Department issue quarterly statements, and the Statistical Office publishes the annual tables.

To produce the statistics on proper lines will mean increased cost, but the increased value and usefulness imparted to them should more than compensate their cost. Every one will readily admit these statistics are absolutely necessary, and it is false economy not to produce them in the form in which they are most valuable and useful.

I most strongly recommend that the defects in our trade statistics should be corrected, and the tables brought more into line with those of Australia as early as possible. Half of the current year 1913 is, however, past, and no alteration can very well be made for this year. As, however, the change recommended will involve a very considerable amount of initial work and organization, I suggest that the time between now and the end of the year be utilized in making the necessary preparations to put the statistics on a proper footing as from the 1st January, 1914. To this end I make the following suggestions:—

(1.) That the Government immediately notify all importers that on and after the 1st January, 1914, they will be required to declare, on the Customs entry form, the country of origin of all goods imported into New Zealand.

(2.) That the Secretary of Customs and the Government Statistician confer and—

- (a.) Compile the standard classification of imports and exports to be adopted;
- (b.) Draw up all the forms, instructions, &c., necessary to give effect to the rearrangement;
- (c.) Arrange the methods as to where and how the statistics can be most economically compiled and dealt with;
- (d.) Recommend the frequency of publication, the matter and manner of each publication, which it is considered will best meet the needs of the community;
- (e.) Consider and deal with any other matter necessary for bringing the new arrangement into operation on the date specified, and furnish a report on the whole matter, with their recommendations, in sufficient time to allow of their adoption before the end of the year.

6. *Industrial and Economic Inquiries.*

The Commonwealth Statistician has recently created a branch—which is conducting inquiries into the industrial conditions generally—prices, wages, cost of living, unionism, employment and non-employment, strikes, &c.—of a kind not hitherto attempted in Australia. The field is a new one, but the statistics and facts sought are most important to the welfare of the country, especially in view of the development and trend of modern legislation. I recommend that the Government Statistician should, as early as possible, institute similar inquiries in New Zealand, and that the Labour Department here should be asked to co-operate and assist in the collection of the data required for such investigations. To assist in the work the Commonwealth Statistician has a special correspondent in each of the principal towns in Australia, but this should not be necessary in New Zealand if the Labour Department co-operates and their permanent officers in the various districts are utilized.

7. *Statistical Publications.*

Our principal publications are the *Official Year-book* and *Statistics* volume. Both of these publications can be improved if our production and trade statistics are put on a better footing as previously recommended.

In addition to the above the New South Wales and Commonwealth offices issue a monthly summary of statistics, which is very useful and much appreciated. If our statistics of production and trade are put on an improved footing I recommend that a similar summary for New Zealand be issued from this office. The cost of such a publication would probably be about £300 per annum, but, as it would give publicity to all statistics as soon as they were available, some saving could be effected to meet the extra cost by discontinuing the issue of *Year-book* advance sheets.

8. *Anthropometric Statistics.*

Statistics as to height, weight, and chest-measurement, &c., are being compiled by the Commonwealth Statistician from data obtained in the medical examination of those registering under the compulsory military training system. As all our youths will be passing through the New Zealand Territorials under our Defence Act, similar statistics as to their physique could also be obtained in this way, which should be of great value and interest in future. I should be glad to have your authority for inquiring into the matter and ascertaining the cost, &c., with a view of taking the work up providing the expense was not too great.

9. *Library.*

I found that the Statistical Offices in Australia have well-equipped libraries of economic, social, and technical works. The Commonwealth Statistician has a particularly fine library, and spends annually £100 in the purchase of new books. I am obtaining a list of some of the most useful works, and as soon as I have ascertained the cost, I propose to ask for authority to obtain these as a nucleus of a library for our Statistical Office here.

10. *Statistical Staff.*

As already stated, the Statistical Offices in Australia are well organized, and staffed considerably in excess of the New Zealand Office. The importance attached to the strength and efficiency of the Statistical staffs can be well illustrated by quoting the salaries of the senior officers in the Commonwealth Office: Statistician, £1,000 per annum; sub-heads of branches—First, £460 per annum; second, £432 per annum; third, £400 per annum; fourth, £400 per annum;

fifth, £400 per annum; sixth, £335 per annum; seventh, £300 per annum: with a clerical staff of twenty-two permanent officers and twenty-seven temporary. In this connection it may be urged that the population of Australia is four and a half times that of New Zealand, but against this it should be remembered that there is a well-staffed Statistical Office in each of the Australian States also.

So much cannot, of course, be expected in New Zealand. But if the deficiencies in our statistics are to be remedied and the recommendations made given effect to, it will mean a considerable extension of the work of the Statistical Office. If the office is to cope properly with the work it will require to be reorganized and efficiently staffed. This will, however, I suppose, be a matter for the Public Service Commissioner, to whom I presume any recommendations in connection therewith should be made.

Summary.

My recommendations may be briefly summarized as follows:—

- (1.) That our agricultural and pastoral statistics be put on a proper basis, and the Australian system of collection through the police be adopted, with the co-operation of the Agricultural Department.
- (2.) That statistics of industrial production be collected annually with the assistance of the Labour Department.
- (3.) That the production of statistics in regard to our fisheries and forests should be undertaken as soon as possible.
- (4.) That our trade statistics should be brought into line with those of Australia as to classification and country of origin as from the 1st January, 1914.
- (5.) That industrial and economic inquiries be undertaken by the Statistical Office with the co-operation of the Labour Department, on similar lines to those instituted by the Commonwealth Statistician.
- (6.) That a statistical summary be issued monthly in the near future.
- (7.) That inquiries be made as to cost of obtaining data from the military authorities for the production of anthropometric statistics in connection with the Territorial Forces.
- (8.) That the Statistical Office be reorganized and efficiently staffed to cope with the increased work to be undertaken.

It is unnecessary for me to here stress the importance of statistics to a country, as this is now generally acknowledged, but it is essential they should be accurate and reliable. I trust, therefore, that in considering the increased expenditure which may be necessary to put the New Zealand statistics of production and trade on a proper basis you will be able to deal with the matter as liberally as possible.

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Government Statistician.

Approximate Cost of Paper.—Preparation, not given; printing (1,500 copies), £4.

By Authority: JOHN MACKAY, Government Printer, Wellington.—1914.

Price 6d.]

