

LABOUR AND EMPLOYMENT SURVEYS OF THE DEPARTMENT OF STATISTICS

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INTRODUCTION

Labour and employment statistics result from surveys of : (a) *individuals* who are in the labour force, and (b) *employers* of labour (as identified through establishments).

The regular surveys that produce statistical data on individuals in the labour force, the Census of Population and the Household Survey, provide a wealth of statistical data on the economic and demographic characteristics of labour force members and their households. Industry, sector, and place of employment data is also obtainable from surveys of individuals, however the details on the activity of employing organisations collected in this way is limited. Specific one-off surveys may provide additional such data, as did the Social Indicators Survey of 1980-81.

DATA ON INDIVIDUALS

Table 1 presents surveys of individuals and lists the primary variables of interest. Variables associated with these are also listed and they typically include age, sex and marital status. The level of industrial and occupational classification is also shown together with the availability of institutional sector divisions. The lowest spatial scale available, the periods over which the survey is carried out, the population covered, the sampling fraction and date at which the series commenced combine to provide a ready reference for those in search of particular labour and employment data.

THE CENSUS OF POPULATION

The single most important source of labour and employment statistical data on individuals is the 5-yearly Census of Population. The Census records the occupation, hours worked, employment status, location and place of work data for every individual reporting in the Census. Income, education, age, sex, means of travel to work, address and other demographic characteristics of respondents are also available. Thus, individual census variables can be cross-tabulated for all or particular types of individuals, at national or sub-national levels down to meshblocks.

Availability of census data The Department of Statistics has continued to increase the range of statistical data that can be economically produced in the Census of Population, as its access to suitable statistical packages and related computer facilities improves. Consequently, the range of published statistical series produced after each Census represents an increasingly minor portion of the data actually and potentially available to users. Ad hoc access to individual census records has now become sufficiently cost effective for tables to be tailored to the requirements of individual users. This is a considerable improvement over the published and unpublished multi-purpose tabulations produced as output from Population Censuses prior to 1976. Access to the 1981 Census records is available from the linking of CENTS-AID package to the complete Census file or various Census sample files (10 percent, 5 percent, 1 percent). To enable economic access, the full Census file is available for subsets of : (1) all adults 15 and over; (2) all persons usually resident in New Zealand; (3) all persons aged 15 and over in the full-time labour force. A range of unpublished tables is also available on microfiche, as described in the 1981 Census "Labour Force" volume.

The range and availability of census statistics from the 1981 Census of Population and Dwellings A bulletin is currently being printed on the range and availability of statistical data from the 1981 Census of Population and Dwellings. The bulletin provides details on the Census publications that have been produced, listing tables that are available both in bulletins and volumes as well as those that are unpublished. Information on the definitions and concepts used in the 1981 Census is also provided.

The population census of 1986 To improve the relevance of the 1986 Census, all known users of the Census have been invited to submit proposals for revising census questions. Users have also been asked to comment on how they would like their output from the 1986 Census. Improved pre-testing of the 1986 Census questionnaires and better pilot testing of procedures, including the full control by the Department of Statistics of the enumeration of the Census for the first time should result in better quality of statistical data being collected. The Department of Statistics also is investigating the use of computer assisted coding methods which will improve the quality of coding and also allow the large amount of complex coding, particularly of labour-related data, such as industry and occupation, to be carried out more economically than at present.

Other issues that are being looked at, in the 1986 Census, include the possibility of a question on voluntary work, which has been a topic requested from a large number of submissions. This of course is subject to satisfactory pre-testing, given that the concept and a number of other submissions relevant to labour force, seem to be best met from a time-use survey rather than a self-enumerated population census.

TABLE 1 DEPARTMENT OF STATISTICS SURVEYS OF INDIVIDUALS

	CENSUS OF POPULATION AND DWELLINGS	HOUSEHOLD SURVEY	SOCIAL INDICATORS SURVEY
Primary variables	-Hours worked -Employment status -Income -Education -Address -Location of Workplace -Means of travel to work	-Hours worked -Employment status -Income -Employment History over last 12 months -Expenditure	-Hours worked -Employment status -Income -Education -Means of travel to work -Time to work -Job satisfaction -Job security -Discouraged from work -Unsocial hours -Weekend hours -Shift work -Preferred hours
Associated variables	-Age -Sex -Marital status -Ethnic origin	-Age -Sex -Marital status -Ethnic group	-Age -Sex -Marital status -Ethnic group
Industrial class (NZSIC)	5 digit	2 digit	2 digit
Occupational class (NZSCO)	4 digit	2 digit	2 digit
Institutional sector	1 digit	nil	nil
Spatial scale - lowest	Meshblock	nil	nil
Periodicity	5 yearly	Annual	Ad hoc
Population covered	Persons usually resident in NZ, age 15 years and over	Persons living in private households	Persons living in private households
Sample	100%	0.3%	0.2%
Series commenced	1851	1974	1980/81

PERSONAL INCOMES AND INCOME TAX	REAL DISPOSABLE INCOMES INDEXES	EXTERNAL MIGRATION	PAY RESEARCH
-Gross income -Assessable income -Tax paid -Tax rebates -Other incomes	-Gross income -Average tax rates -Real disposable incomes for quin- tiles of wage and salary earners	-Country of birth -Nationality -Purpose of visit -Length of stay/ absence -Class of migrant -Country of last/ next residence -Port of embarkation/ disembarkation	-Taxable gross income -regular (wages, salary) -irregular (wages, salary) -Non-taxable gross income -regular -irregular
nil	nil	-Age -Sex -Marital status	-Age -Sex
Major industry	nil	nil	nil
nil	nil	3 digit	Specific benchmark
nil	nil	nil	Private/State
Tax district	nil	Statistical Area	Employment District
Annual	Quarterly	Monthly	Ad hoc
Tax returns	Full-time wage and salary earners in private house- holds	Migrants	Employees in selected occupations
2%	0.3%	Permanent and long- term 100%, short- term 25%	Sample to full coverage
1922	1980	1934	1979 (re- established)

The Department is also looking at providing access to Census data in the form of index or summary files as is available in the United States and Canada. The summary files, some of which will be available on INFOS, will also be available to users to link to statistical packages such as SAS which together with associated digitised boundaries will provide a powerful facility for the mapping of census output. The Government has approved the purchase by the Department of Statistics of an IBM 4361 computer for the processing of the 1986 Census. This will be installed in late September 1984. The new computer facilities will allow TPL to be linked to the 1981 and 1986 Census data files. An easy-to-use interface to TPL has already been developed, which will expedite the production of publication quality tables for users.

Population projections and estimates 1981 Census-based labour force participation rates will be available very shortly. These rates will include for the first time, estimates of part-time labour force participation rates, and projections of the part-time labour force. Regional projections of the labour force will be available from July 1984.

OTHER SURVEYS

Data on individuals from the interviewer-based Household Survey and the Social Indicators Survey are available by employment status, hours worked, income, employment history, and many other related variables for individuals in the work force. The Social Indicators Survey, in particular, has collected information on job satisfaction, job security, discouraged work, "unsocial" hours, weekend hours, shift work and preferred work hours of respondents. Whilst these surveys only provide national estimates and limited-depth industry and occupation analyses, they do provide some indication of the distribution of responses to employment variables according to demographic and other characteristics.

Extensive cross-section analyses are possible with the Census and Household Surveys and Social Indicators data collections. One recent study has been a 1 and 2 income family study by Wigbout and Penhale which identified those factors which differentiate 1 income families from those with 2 incomes (see scholarly periodicals section of bibliography).

Personal incomes and income tax statistics have been available since 1922. An occupation analysis has not been carried out of personal income tax respondents for some years. The information is available for self-employed persons by industry of their income, both gross and assessable with a regional analysis being by tax district.

The real disposable income indexes have been produced to provide real disposable income movements for wage and salary earners at different income levels. The

only analysis available is by quintile group with indexes based on the responses to the Household Sample Survey of 1980-81. The incomes collected at that time have been adjusted by indicators which are correlated with the quarterly movements of the major sources of income as adjusted by the tax rates relevant to each particular period. These data are only available at the national level however.

External migration data provides information on the flows of individuals from overseas into the work force and New Zealanders leaving the local work force. The main information available is age, sex, marital status and occupation of migrants.

Pay Research Surveys provide information related to persons on specific benchmarks in both the private and state sector in New Zealand. There is no aggregate comparison produced of persons in the State and private sector from the Pay Research Surveys. Rather, the value of a range of individual components of remuneration in the form of regular wages and salaries, irregular income and allowances are measured for individuals in both the public and private sector. During the course of industrial negotiations, measures are made of their relative importance to the desired differentials between State and private wages.

At the time of writing New Zealand has no labour force survey. On 3 occasions the Government Statistician has recommended to Government that finance be available for such a survey, but the required compensatory savings have not been able to be made.

DATA ON ESTABLISHMENTS

By contrast with the sources of data on individuals, surveys of establishments provide comparatively exact specifications of the industry sector and place of employment. Department of Statistics surveys of employers providing labour and employment statistics are as follows : (1) Prevailing weekly wage rates index; (2) Nominal weekly wage rates index; (3) Pay Research Surveys; (4) Census of Agriculture; (5) Agriculture Economic Surveys; (6) The Integrated Economic Censuses; (7) The Quarterly Manufacturing Survey.

Table 2 sets out the 7 sources in a comparable manner to Table 1. The primary variables of interest are indicated and these are broken down by industrial and occupational classification. Again, information on the spatial scale, population and sampling fraction will be of assistance to those examining the sources of employment in New Zealand. Each source will now be briefly discussed.

WAGE RATE INDEXES

The Department of Statistics has produced nominal wage rate indexes since 1909 and indexes of prevailing weekly wage rates since 1977. The key breakdown of the index is of awards settled by the Arbitration Court and of other tribunals. Some

TABLE 2 DEPARTMENT OF STATISTICS SURVEYS OF ESTABLISHMENTS

	WEEKLY WAGE INDEXES		AGRICULTURAL ECONOMIC SURVEYS	CENSUS OF AGRICULTURE
	NOMINAL	PREVAILING		
Primary variables	Award wage rate movements	Prevailing wage rate movements	No. of persons by employment status Wages and salaries	No. of persons by employment status Wages and salaries
Associated variables	Arbitration Court/Other Tribunal		nil	nil
Industrial class (NZSIC)	2 digit		9 farm types	5 digit
Occupational class (NZSCO)	major group		nil	nil
Spatial scale - lowest	nil		nil	county
Periodicity	Quarterly		Annual	Annual
Population covered	Employees covered by awards of Arbitration Court and other determining authorities		Selected farm types	Farms
Sample	Full coverage of awards and other determining authority minima	Sample of enterprises	Full coverage of some farm types and sample of others	Full coverage
Series commenced	1909	1977	1981	1842
Series terminated	-	-	-	-

PRODUCTION CENSUS	INTEGRATED ECONOMIC CENSUSES	QUARTERLY MANUFACTURING SURVEY	QUARTERLY ECONOMIC SURVEY OF DISTRIBUTION
No. of persons engaged Wages and salaries	No. of persons by employment status Wages and salaries	Total hours worked Total wages and salaries	Total hours worked Total wages and salaries
nil	nil	nil	nil
3 digit	5 digit	2 digit	2 digit (61, 62, 63 & 95)
nil	nil	nil	nil
Local Authority (incl Employment District)	Meshblock	nil	nil
Annual	5 yearly (manufacturing 2/3 yearly)	Quarterly	Quarterly
Manufacturers	Industries	Manufacturers	Retailing, Wholesaling, Accommodation and Service Enterprises
Full coverage	Full coverage	Full coverage of large manufacturers and sample of others	Full coverage of large enterprises and sample of others
1918	1974	1977	1984
1974	-	-	-

users identify this distinction as a public/private sector breakdown. This is not correct. The Arbitration Court does hear awards for employees not in the private sector and there are a number of non-public sector awards heard by the other tribunal group. The industry analysis for the indexes is a 2-digit level and the occupational analysis is at a 1-digit level.

The sample coverage is such that a more detailed analysis would not be possible. The prevailing weekly wage rates index is currently being reviewed in order to examine whether the range of employee remuneration can be extended beyond that of wage rates as at present. Difficulties are encountered as more and more remuneration comes in a form other than wage rates. Noteworthy here are particular production-related bonuses which vary as the level of production varies and therefore cause some difficulties with these indexes. The forthcoming publication, *Wages and earnings*, contains technical data on the Nominal and Prevailing Weekly Wage Rate Indexes, as well as an historical series.

OTHER ESTABLISHMENT SURVEYS

The other surveys which are noted in Table 2 (Agriculture Economic Surveys, the Census of Agriculture, the Production Censuses, Integrated Economic Censuses, the Quarterly Manufacturing Survey, and the Quarterly Economic Survey of Distribution) are not designed specifically for the collection of employment-related data. Information on wages and salaries and number of persons engaged is collected as part of a wider set of statistics collected from the establishment. For the Censuses of Agriculture, the Production Census and the Integrated Economic Censuses, the data is available at a fine level of geographic detail.

Integrated Economic Censuses refers to the following set of 8 :

Census of Agriculture Contracting Services	1979-80
Census of Building and Construction	1978-79
Census of Distribution	1977-78
Census of Fishing	1980-81
Census of Forestry and Logging	1979-80
Census of Manufacturing	1978-79
Census of Mining and Quarrying	1978-79
Census of Services	1980-81

REVIEW OF LABOUR STATISTICS

Labour and employment statistics have been under review for some time. When made available to users, the review report will provide a wealth of information on the characteristics of surveys pertinent to users of labour and employment statistics. The current range of labour and employment statistics is explored as is their

classification, their periodicity and their availability. The relevance of a labour force survey will be considered in light of these findings together with specific concerns such as whether ethnic data should be available for persons who register as unemployed. Now is the time for users of labour statistics to articulate their concerns about their ability to use and integrate data from different surveys and to link data from the same survey over different time periods.