

AGENDA ITEM 3 : STATISTICAL UNITS FOR SERVICES INDUSTRIES

(Paper Prepared By Australian Bureau of Statistics)

1 INTRODUCTION

- 1.1 The Australian Bureau of Statistics (ABS) has an ongoing program of industrial censuses and surveys in order to provide statistics on the structure, operations, output and performance of major industry sectors of the Australian economy. It includes regular censuses of agriculture, mining, manufacturing, and electricity and gas utilities, and less frequent censuses or sample surveys of retailing and selected service industries, wholesaling, construction and transport. Monthly or quarterly collections are also undertaken to provide indicators of current activity in a number of these industries or to assess broader economic aspects such as capital expenditure, stocks and operating surplus by industry.
- 1.2 This paper outlines the Australian experience in developing appropriate statistical units for surveying businesses primarily engaged in the provision of certain personal, property, business and technical services. This outline, and the brief discussion of some of the more important issues underlying the delineation of appropriate statistical units which follows, is preceded by a broad description of the ABS program of industrial statistics and the statistical infrastructure which supports the program.

2 ABS PROGRAM OF INDUSTRIAL STATISTICS

- 2.1 Large scale statistical collections of agriculture and manufacturing have been conducted in one form or another since the last century. To a large extent, annual censuses of agriculture, manufacturing and mining, and periodic censuses of the retail industry, conducted up to the late

1960s, were conducted independent of each other. The lists of businesses covered by each census were built up largely independently of one another, with no great attention given to the mixture of activities undertaken by businesses which might straddle more than one industry sector (e.g. a business which engaged in both manufacturing and retailing). Also, not all the information was collected on a consistent definitional basis across the sectors concerned.

2.2 As a result, there were considerable limitations on the statistics produced - lack of reliability and comparability and unnecessary duplication in collections. To remedy these defects and to pave the way for wider coverage of economic activity, in the mid-1960s the ABS set about developing a framework within which industry statistics could be collected in a more integrated way. A major milestone was reached with the conduct of integrated censuses of manufacturing, mining, gas and electricity, retailing and wholesaling in respect of 1968-69. From this basis, the ABS has continued to develop and extend a program of integrated industrial censuses and surveys. An outline of the program from 1977-78 is contained in Appendix 1.

2.3 Integrated industry collections require a framework of concepts as well as operational facilities for implementing them. The anatomy of the components of the economy and their interrelationships which are inherent in the System of National Accounts provide the conceptual framework for the collection of statistics on industry. In order to produce industry statistics within this conceptual framework, it has been necessary for the ABS to develop:

- . A standard definition of business units.
- . A standard classification of industries to which business units can be classified in a mutually exclusive way.

- . A register of business units, containing not only names and addresses but also the characteristics of their hierarchical structure, the organisation of their activities and their related industry classification, so that the population to be covered by a particular industry collection can be delineated with reasonable precision.
  - . Standard definitions of the items of data to be collected, so that the statistics collected are consistent and comparable within and across industries.
- 2.4 Based on these units and industry classifications the ABS has developed a central register of businesses containing names and addresses, the hierarchical links between statistical enterprises and their establishments (see Part 3 below) and their industry classification. The central register of businesses enables the ABS to identify the population of business units from which information is collected in respect of each particular industry census or survey. It eliminates overlaps or gaps between collections in respect of different industry sectors and ensures consistent delineation of the business units for which data are collected.
- 2.5 Regarding data items, standard definitions are used across all industry collections for employment, wages and salaries, turnover, capital expenditure and stocks; standard definitions for commodities, ie goods and services, have been established through the Australian Standard Commodity Classification (which is compatible with the Australian standard commodity classifications of imports and exports). The adoption of these standard definitions ensures that the data collected on the same item are consistent and comparable both within an industry and across different industries.

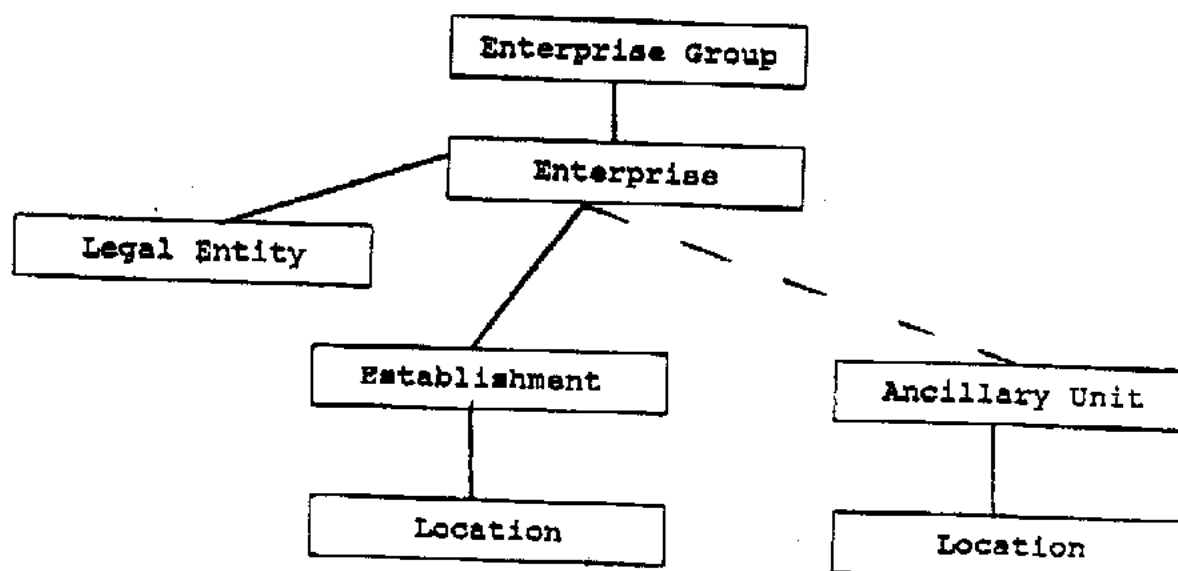
### 3 STATISTICAL UNITS IN INTEGRATED ECONOMIC STATISTICS

- 3.1 The conceptual framework for the definition of statistical units in the Australian system of integrated economic statistics is based on international standards recommended by the United Nations Statistical Office in the document A System of National Accounts UN, New York, 1968 (SNA). The detailed document describing the Australian framework is Standards for Statistical Units in Australian Integrated Economic Statistics (SSU). Copies of the SSU have been provided to all statistical agencies participating at this meeting.

#### Diagrammatic Overview

- 3.2 The different classes of units in Australian integrated economic statistics are linked in a hierarchic fashion. The main hierarchic links are shown in the diagram below.

SNA Transactor Units	Fundamental or legal operating units	Standard or statistical units
Owning and financing units	. legal entity	. enterprise . enterprise group
Producing units	. location	. establishment . ancillary unit



3.3 In the diagram, the links represented by unbroken lines indicate the minimum necessary hierarchic links between the classes of units in an enterprise group. The link represented by the broken line, ie between the enterprise and the ancillary unit, means that an enterprise can, but need not have an ancillary unit(s). In addition, each higher level unit in an enterprise group, eg each enterprise, can, but need not consist of more than one lower level unit, eg establishments. However, there is one exception. This is that ancillary units usually consist only of one location each. Other types of relationships between different classes of units (eg between ancillary units and the establishments served by them) are not detailed in this paper. A units model based on such a diagram provides the standard framework for the systematic recording on the central register of businesses.

3.4 As indicated in the above table the units in the diagram are classed as fundamental units or standard units. These are further described below:

(i) Fundamental units comprise the legal/operating units, namely legal entities and the locations at which, or from which they operate. They form the components from which standard or statistical units are formed.

(ii) Standard or statistical units are the units within the framework of integrated economic statistics from and about which statistical information is collected. These units are divided into two categories: 'basic' standard units (ie enterprise groups, enterprises, establishments and ancillary units) and units derivable from basic standard units or hybrid units. Hybrid units are derived from the basic standard units. An example of a hybrid unit is the enterprise/State unit which covers all the operations of an enterprise conducted at or from all of its locations in a State or Territory. Definitions of the fundamental and basic standard units follow.

## Legal Entity Unit

- 3.5 The concept of a legal entity employed in the Australian system is much broader than the strict legal interpretation of this term and encompasses all the forms of organisation such as companies, sole proprietorships, partnerships and trusts. For statistical purposes a legal entity is defined as a unit covering all the operations in Australia of an entity possessing some or all of the rights and obligations of individual persons or corporations or which behaves as such, at least in respect of those matters of concern for economic statistics. Statistical legal entities are used as the basic building blocks for defining the owning and financing basic standard units in the Australian system.

## Statistical Enterprise

- 3.6 The narrower owning and financing unit used in Australia, the statistical enterprise, is defined, in general terms, as a unit covering all the operations in Australia of a single operating legal entity. However, provision is made to allow companies to be merged with other companies to which they are related in terms of the Companies Acts, to form an enterprise. Companies which are 'non-operating' in that they do no business, or have no employees, may be merged with a related 'operating' company to form a statistical enterprise. Similarly, related companies for which no separate accounts are maintained, other than the minimum required for taxation or company registration purposes, may be merged to form an enterprise. Similar merging concepts apply also to the types of enterprises which are specific to the public sector. Provision is also made for splitting legal entities to form statistical enterprises in circumstances where institutional sector homogeneity would otherwise be significantly affected.

### **Enterprise Group Unit**

- 3.7 The broader owning and financing unit used in Australia, the enterprise group, is defined as a unit covering all the operations in Australia of a group of companies which are related in terms of the uniform Companies Acts.

### **Location Unit**

- 3.8 A location is a single, unbroken physical area, occupied by an enterprise, at which, or from which, the enterprise is engaged in productive activity on a relatively permanent basis, or at which the enterprise is undertaking capital expenditure with the intention of commencing productive activity on a relatively permanent basis at some time in the future. The location unit is the basic unit from which statistical establishments and ancillary units are formed.

### **Statistical Establishment**

- 3.9 Three 'location-based' statistical establishment unit definitions are used in the Australian system of integrated economic statistics. These are units covering:
- (a) all the operations of an enterprise conducted at or from a single location (single location unit),
  - (b) all the operations of an enterprise conducted at or from all of its locations in a State/Territory predominantly engaged in activities primary to a given industry (enterprise/State/industry unit), and
  - (c) all the operations of an enterprise conducted at or from all of its locations in Australia predominantly engaged in activities primary to a given industry (enterprise/industry unit).

- 3.10 An 'industry' is composed of statistical establishment and ancillary units mainly engaged in a specified range of activities. In general, in the Australian system one of the above three definitions is the designated establishment definition for each industry so defined.

**Ancillary Unit (including Administrative Offices)**

- 3.11 An ancillary unit is defined, in general, as a unit covering all the operations of an enterprise conducted at or from a single location where those operations are mainly the provision of services to other locations of the same enterprise. Following SNA guidelines such units are classified to the industry of the establishment(s) served rather than to the industry to which the activity carried out is primary (when carried out for sale in the open market).

**4 RESPONDENT LOAD**

- 4.1 One of the major objectives of the ABS is to maintain an appropriate balance between meeting the statistical needs of government, business and other sectors of the community and keeping within reasonable limits the reporting load imposed on those businesses which supply the basic data.

Some of the main methods used in industrial surveys are:

. Using sampling techniques rather than complete enumeration wherever possible.

. Using size cut-offs, or other coverage restrictions, in order to exclude from collections those businesses which in total do not make a significant contribution to the main statistical items produced by the collections.



. Using abbreviated forms to avoid asking smaller businesses to provide all the detail needed from larger businesses.

. Using forms tailored specifically to the known activities of each individual business, thus reducing the size of forms by eliminating items not relevant to that business.

- 4.4 In contrast to some (most) other countries, the ABS program of industrial statistics makes no direct use of statistical data from administrative records of other government agencies in order to reduce collection costs and respondent load. Information provided by businesses to the Australian Taxation Office is, however, used extensively to maintain the ABS's central register of businesses, and in the compilation of "income-based" estimates of GDP and industry gross product at current prices.

## 5 ABS SERVICES INDUSTRIES SURVEYS

- 5.1 Integrated censuses of retail and a limited range of personal services industries have been conducted for 1968-69, 1973-74 and 1979-80. An integrated census of retail industries was conducted in respect of 1985-86.
- 5.2 A significant extension to the Australian program of industries surveys is the surveying of various business, technical and personal services industries. The surveys are in two parts - the first with the reference year 1986-87, the second, 1987-88. This initiative was in response to the growing importance of these sectors and consequential demands for statistics on them by government and other users. The ABS has consulted with users on their requirements with the aim of identifying the services industries and their characteristics for which the highest

priority needs exist. The services industries to be covered in the two years were determined in the light of these consultations.

5.3 The services industries involved in the surveys are listed in Appendix 2 of this document.

5.4 The major statistical output requirements of the two surveys are:

(i) Detailed operations data to give some measure of profitability of businesses in services industries.

(ii) Size data which enable the "small business" dimension to be analysed.

(iii) Industry specific activity data.

(iv) Regional (State) data for all of (i), (ii) and (iii) and where possible, data for areas below State level.

## 6 1986-87 SERVICES INDUSTRIES SURVEY (SIS)

6.1 Within the conceptual framework described in Part 3 above, three possible collection units were considered for the 1986-87 SIS.

(i) The Statistical Enterprise - all the operations in Australia of a single operating legal entity.

(ii) The Single Location establishment unit - all the operations of an enterprise conducted at or from a single location.

(iii) The Enterprise/State/Industry establishment unit - all the operations of an enterprise conducted at or from all of its locations in a State/Territory, predominantly engaged in activities primary to a given industry.

6.2 When making the decision about which unit to use, basic data about businesses within the selected industries, held on the central register of businesses and, where available, information obtained from previous censuses were taken into account. In fact, there is very little difference between selecting the enterprise or either of the two establishment units in terms of the homogeneity of industry data. This occurs because the overwhelming majority of in-scope services industries enterprises are single establishment enterprises.

6.3 Savings anticipated by adopting "the enterprise approach", ie using the statistical enterprise as the reporting unit (and the unit of observation) in the survey include reduced respondent reporting load and processing costs, while most of the user requirements would be satisfied. As a result the statistical enterprise was adopted as the unit about which data will be collected for the two Services Industries Surveys.

## 7 SPECIAL CASES ENCOUNTERED IN IMPLEMENTING STATISTICAL UNITS CONCEPTS IN ABS SERVICES INDUSTRIES SURVEYS

7.1 This part provides a brief description of some of the more significant difficulties or special cases encountered with the application of the statistical units model outlined in Part 3 above and describes the solutions adopted (or proposed to be adopted) by the ABS in its two Services Industries Surveys.

### (1) Cases directly related to the use of the statistical enterprise as the reporting unit

7.2 Examination of coverage and specialisation ratio information resulted in two potential problem areas with the enterprise approach. These cases concern travel agency services (ASIC 5741) of financial enterprises (FEs) and local government caravan parks (ASIC 9233).

(a) Travel agency services of Financial Enterprises

- 7.3 The general objectives for defining the enterprise unit require that enterprises be units which are reasonably homogeneous in terms of the institutional sectors defined in the Standard Institutional Sector Classification of Australia (SISCA). It has therefore been found necessary in the past to apply units rules to permit the splitting of legal entities to meet this requirement in relation to some of the institutional sectors.
- 7.4 For the 1986-87 SIS an additional splitting situation came to notice, viz Financial Enterprises engaged in significant Corporate Trading Enterprises (CTEs) activity (ie travel agency services activity (ASIC 5741)).

It was found to be feasible to split the travel agency operations from the Financial Enterprise operations in the four significant cases.

(b) Local government caravan parks

- 7.5 Local government caravan parks are establishments of local government administration enterprises (ASIC 7113). Although numerous, they were not found to be a substantial component of ASIC class 9233 in total and so they were not treated as a special collection case separate from the standard enterprise survey. If data were to have been collected, a number of financial costs which relate to the caravan park operations would not have been able to be split from the general finances of the local government authority enterprise and any operating ratios that could be derived would be inconsistent.

purposes. Consequently enterprises in three different institutional sectors may be involved. Survey respondents in the legal services industry have generally indicated a preference for reporting consolidated data for the operations of practices as a whole and not for each component inscope enterprise. Similarly, users have sought consolidated statistics.

(V) Treatment of enterprises which only provide services to one other enterprise

- 7.12 Related to the situation described in (iv) above, is the issue of the appropriate treatment of enterprises which only provide services to one other enterprise. In relation to the 1987-88 SIS, the situation arises mainly in connection with ASIC 6383 - Market and business consultancy services, which includes business management services of the type referred to in 7.11. There is a substantial number of enterprises of this type classified to ASIC 6383. There is some concern about the characteristics of these units being atypical of the industry and statistics being swamped by them. One possible solution is to give the "service-providing" enterprise an industry classification reflecting the industry of the "service-using" enterprise as is done in the case of establishments only engaged in providing all the employment services for another establishment.

8 CONCLUSION

- 8.1 Overall the statistical enterprise is considered to be the appropriate statistical unit for business to report in, at least, the first of the two ABS Services Industries surveys. It must, however, be stressed that the Australian experience to date is quite limited. It has been confined to a restricted range of personal, business and technical services industries, parts of which are still being developed. The ABS is yet to consider the inclusion of

the quite possibly more complex industries as far as the delineation of appropriate statistical units is concerned, such as Banking and insurance industries and Community services industries.

AUSTRALIAN BUREAU OF STATISTICS  
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## APPENDIX 1

## AUSTRALIAN PROGRAM OF INDUSTRY COLLECTIONS

Reference year	Industry scope
1977-78	Mining, Manufacturing, Utilities (a)
1978-79	Mining, Manufacturing, Utilities, Construction
1979-80	Mining, Manufacturing, Utilities, Retail, Selected Services
1980-81	Mining, Manufacturing, Utilities
1981-82	Mining, Manufacturing, Utilities, Wholesale
1982-83	Mining, Manufacturing, Utilities
1983-84	Mining, Manufacturing, Utilities, Transport
1984-85	Mining, Manufacturing, Utilities, Construction
1985-86	Mining, Retail
1986-87	Mining, Manufacturing, Utilities, Services Industries: Part 1
1987-88	Mining, Services Industries: Part 2
1988-89	Mining, Manufacturing, Utilities, Transport (b)
1989-90	Mining, Manufacturing, Utilities, Construction (b)
(a)	Gas and Electricity
(b)	Tentative

## APPENDIX 1

## SERVICES INDUSTRIES SELECTED FOR COVERAGE IN 1986-88

The industries to be surveyed in respect of 1986-87 are:

<u>ASIC*</u> <u>CLASS</u>	<u>TITLE</u>
5711	Motor Vehicle Hire
5741	Travel Agencies
9133	Motion Picture Theatres
9231	Cafes and Restaurants
9232	Hotels (mainly drinking places)
9233	Accommodation
9341	Licensed Bowling Clubs
9242	Licensed Golf Clubs
9243	Licensed Clubs n.e.c.
9340	Laundries and Dry Cleaners
9351	Men's Hairdressers
9352	Women's Hairdressers and Beauty Salons
9361	Photography Services n.e.c.

The industries to be surveyed in respect of 1987-88 are:

<u>ASIC</u> <u>CLASS</u>	<u>TITLE</u>
6310	Real Estate Agents
6334	Architectural Services
6335	Surveying Services
6336	Technical Services n.e.c.
6371	Legal Services
6372	Accounting Services
6381	Data Processing Services
6382	Advertising Services
6383	Market and Business Consultancy Services
6384	Typing, Copying and Mailing Services
6385	Collecting and Credit Reporting Services
6386	Pest Control Services
6387	Cleaning Services
6388	Contract Packing Services n.e.c.
6389	Business Services n.e.c.

\* Australian Standard Industrial Classification  
n.e.c. = not elsewhere classified