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Technical Manual

Employee Earnings and Hours, Australia, Expanded CURF

Australia

May 2006

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**Employee Earnings and
Hours, Australia,
Expanded CURF**

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May 2006

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AUSTRALIAN BUREAU OF STATISTICS

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ABBREVIATIONS

ABN	Australian Business Number
ABS	Australian Bureau of Statistics
ABSDL	Australian Bureau of Statistics Site Data Laboratory
ANZSCO	Australian and New Zealand Standard Classification of Occupations
ASCO	Australian Standard Classification of Occupations
CURF	confidentialised unit record file
EEH	Survey of Employee Earnings and Hours
RADL	Remote Access Data Laboratory
RSE	relative standard error
SE	standard error
TAU	type of activity unit

INTRODUCTION

OVERVIEW

This technical manual provides information about the release of microdata from the May 2006 Survey of Employee Earnings and Hours (EEH). The microdata are available as an Expanded Confidentialised Unit Record File (CURF) released with the approval of the Australian Statistician. The CURF is accessible through the Australian Bureau of Statistics (ABS) Remote Access Data Laboratory (RADL).

The RADL is an on-line database query system, under which microdata are held on a server at the ABS. Users of the RADL can submit programs in SAS, SPSS and STATA software to interrogate and analyse the microdata, and access the results. Further information about the RADL facility and information about obtaining access to the file is available on the ABS website <http://www.abs.gov.au> > Services We Provide > CURF Microdata >.

ABOUT THE SURVEY

The Survey of Employee Earnings and Hours has been conducted since 1974. It is currently conducted biennially. The survey produces estimates of the composition and distribution of the weekly earnings of employees, the hours they're paid for, and the methods used to set their pay (i.e. award only, collective agreement, or individual arrangement).

Estimates from the survey are used by Commonwealth and State government departments, employer associations, trade unions and academic researchers. Estimates from the survey were published in *Employee Earnings and Hours, Australia, May 2006* (cat. no. 6306.0) in April 2007. This publication is available on the RADL website as Acrobat file 63060_May 2006.pdf.

OCCUPATION

Occupation data are classified according to the ANZSCO - *Australian and New Zealand Standard Classification of Occupations, First Edition, 2006* (cat. no. 1220.0). This classification replaces the ASCO - *Australian Standard Classification of Occupations, Second Edition, 1997* (cat. no. 1220.0). Data classified according to the ASCO can be obtained on request.

FUTURE RELEASES

It is expected that a CURF will become part of the standard EEH product set. As a result, an EEH CURF is expected to be released from the August 2008 survey.

SURVEY METHODOLOGY

SAMPLE DESIGN

The EEH survey covered all employing organisations in Australia (public and private sectors) except:

- businesses primarily engaged in agriculture, forestry and fishing
- private households employing staff
- foreign embassies, consulates, etc.

The employees of employers covered in the survey are in scope if they received pay for the reference period, except:

- members of the Australian permanent defence forces
- employees based outside Australia
- employees on workers' compensation who are not paid through the payroll.

The survey uses a two-stage sample selection approach. The first stage involves selecting a probability sample of employer units from the ABS Business Register. The statistical unit for the first stage comprises all activities of an employer in a particular state or territory based on the Australian Business Number (ABN) unit or Type of Activity Unit (TAU).

In the second stage, businesses selected in the first stage are asked to select a random sample of employees from their payrolls using instructions provided by the ABS.

WEIGHTING AND ESTIMATION

Records are weighted in two stages, reflecting the two-stage sample. In the first stage, number raised estimation is used to estimate the number of employees in each employer unit in the stratum. In the second stage, number raised estimation is again used to estimate the total number of employer units, resulting in an estimate of employees. The final weight for each selected employee is therefore essentially a combination of the 'employer unit' weight and the 'employee' weight.

RELIABILITY OF THE ESTIMATES

As the information on the CURF relates to a sample of employers and employees, rather than a full enumeration, they are subject to sampling variability, that is, they may differ from the figures that would have been produced if the data had been obtained from all employers and employees. The difference, called sampling error, should not be confused with inaccuracy that may occur because of imperfections in reporting by respondents or in processing by the ABS. Such inaccuracy is referred to as non-sampling error.

Sampling error

The sampling error associated with any estimate can be estimated from the sample results. One measure of sampling error is given by the standard error (SE), which indicates the degree to which an estimate may vary from the value that would have been obtained from a full enumeration (the 'true value'). There are about two chances in three (67%) that a sample estimate differs from the true value by less than one SE, and about 19 chances in 20 (95%) that the difference will be less than two SEs.

Another measure of the sampling error is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate.

Further information on sampling error is provided in the Technical Note of *Employee Earnings and Hours, Australia, May 2006* (cat. no. 6306.0). Standard errors are also provided in Tables 22 to 26 of the publication.

SURVEY METHODOLOGY *continued*

Non-sampling error

Non-sampling error arises from inaccuracies in collecting, recording and processing the data. These inaccuracies may occur in any enumeration, whether it be a full count or a sample. Efforts have been made to reduce non-sampling error by careful design of questionnaires, detailed checking of returns and quality control of processing.

SEASONAL FACTORS

Estimates are based on information collected in the survey month, and, due to seasonal factors, they may not be representative of other months of the year.

MORE INFORMATION

Further information on the survey methodology can be found in:

- *Employee Earnings and Hours, Australia, May 2006* (cat. no. 6306.0)
- *Labour Statistics: Concepts, Sources and Methods* (cat. no. 6102.0.55.001) which is available on the ABS website <<http://www.abs.gov.au>>Methods, Classifications, Concepts & Standards>.

USING THE CURF MICRODATA

ABOUT THE MICRODATA

The EEH Survey microdata are released under the Census and Statistics Act 1905, which has provision for the release of microdata in the form of unit records where the information is not likely to enable the identification of a particular person or organisation. Accordingly, there are no names or addresses of survey respondents on the CURF and other steps have been taken to protect the confidentiality of respondents. These include removing some data items from the CURF, reducing the level of detail shown on the CURF for some other items and slightly modifying the weights for a number of records.

Steps to confidentialise the data sets made available on the CURF are taken in such a way as to ensure the integrity of the data sets and optimise their content, while maintaining the confidentiality of respondents. Intending purchasers should ensure that the data they require, at the level of detail they require, are available on the CURF they are intending to use; data obtained in the survey but not contained in the CURF may be available in tabulated form on request. The full list of survey data items included on the CURF is provided in the Appendix.

The CURF contains 58,417 confidentialised respondent records. Each employee record has a unique person identifier (ABSPID). Subject to the limitations of sample size and the data classifications used, it is possible to manipulate the microdata, produce tabulations and undertake statistical analyses to individual specifications.

FILE CONTENTS

The Expanded CURF accessed via the RADL contains the following files:

- Information files - including this Technical Manual in Adobe Acrobat format, the Data items list and frequencies
- Test files - files that mirror the actual data files, but have random data and random identifiers; these files are located on the RADL and users can use these to troubleshoot their code prior to submitting RADL jobs
- SAS user files - including a SAS version of the data set, and the SAS programs that generated the SAS-formatted version
- SPSS user files - including an SPSS version of the data set
- STATA user files - including a STATA version of the data set.

USE OF WEIGHTS

The survey was conducted on a sample of employees from a sample of employers in Australia, and as such users need to take this into account when deriving estimates from the CURF. Each employee record contains a weight (FINPRSWT), and this weight indicates how many employees are represented by this employee. Where estimates are derived from the CURF, it is essential they are calculated using the weights.

An employees' chance of selection in the survey varied considerably, depending on their employers' state, sector, industry and size. If each employee's survey weight is ignored, then no account will be taken of the employee's chance of selection, and the resulting estimates may be biased.

A number of the weights in the CURF have been slightly modified from the original survey weights for confidentiality reasons. This reweighting process has not resulted in significant changes to the estimates and the statistical validity of the CURF is not affected.

USING THE CURF MICRODATA *continued*

EARNINGS

Weekly earnings data items have been perturbed and are expressed as continuous data items (in whole dollars only) on the CURF. Perturbation is a process of altering the reported values to prevent identification of respondents. The distribution of values is not changed significantly through perturbation and the statistical validity of aggregate data is not affected.

HOURS PAID FOR

Hours paid for data items were only collected for non-managerial employees. For managerial employees, a value of '0' has been applied to all hours paid for data items in the CURF. It is therefore important to take this into account when undertaking analysis of hours paid for.

RECONCILIATION OF CURF WITH UNCONFIDENTIALISED DATA

Steps to confidentialise the data made available on the CURF are taken in such a way as to maximise the content of the file while maintaining the confidentiality of respondents.

The steps taken to preserve confidentiality include:

- omitting two data items included in previously published output - Industry and Level of government
- reducing the level of detail available for one data item - Employer unit size is only available on the CURF in three broad groups
- perturbation of all earnings data items
- modifying the weights for some records.

As a result, it may not be possible to exactly reconcile all statistics produced from the CURF with previously published statistics. However, these differences are not significant and should not diminish the value of the CURF in analysis.

CONDITIONS OF RELEASE

CONDITIONS OF RELEASE

The May 2006 EEH Survey Expanded CURF is released in accordance with a Ministerial Determination (Clause 7, Statutory Rules 1983, No.19) in pursuance of section 13 of the Census and Statistics Act 1905. As required by the Determination, the CURF has been designed so that the information on the file is not likely to enable the identification of the particular person to which it relates.

The Australian Statistician's approval is required for each release of the CURF. Prior to being granted access to the CURF, all organisations, and individuals within organisations, who request access to the CURF will be required to sign an Undertaking to abide by the legislative restrictions on use. Organisations and individuals who seek access to the 2006 EEH Survey Expanded CURF are required to give an undertaking which includes, among other conditions, that in using the CURF data they will:

- use the data only for the statistical purposes specified
- not attempt to identify particular persons or organisations
- not disclose, either directly or indirectly, the data to any other person or organisation other than members of their organisation who have been approved by the ABS to have individual access to the information
- not attempt to match, with or without using identifiers, the data with any other list of persons or organisations
- in relation to data made available via the Remote Access Data Laboratory (RADL) or the ABS Site Data Laboratory (ABSDL), access the data only in a manner specifically authorised in writing by the ABS
- not attempt to access the data after the term of their authorisation expires, or after their authorisation is rescinded by the organisation which provided it, or after they cease to be a member of that organisation.

Use of the data for statistical purposes means use of the content of the CURF to produce information of a statistical nature, i.e. the arrangement and classification of numerical facts or data, including statistical analyses or statistical aggregates. Examples of statistical purposes are:

- manipulation of the data to produce means, correlations or other descriptive or summary measures
- estimation of population characteristics
- use of data as input to mathematical models or for other types of analysis (e.g. factor analysis)
- providing graphical or pictorial representations of the characteristics of the population or subsets of the population.

All CURF users are required to read and abide by the 'Responsible Access to ABS Confidentialised Unit Record Files (CURFs) Training Manual' available on the ABS website <<http://www.abs.gov.au>>Services We Provide>CURF Microdata>Accessing CURF Microdata>. Use of the data for unauthorised purposes may render the purchaser liable to severe penalties. Advice on the propriety of any particular intended use of the data is available from the Microdata Access Strategies Section via <microdata.access@abs.gov.au> or on (02) 6252 7714.

CONDITIONS OF SALE

All ABS products and services are provided subject to the ABS conditions of sale. Any queries relating to these Conditions of Sale should be referred to <intermediary.management@abs.gov.au>.

CONDITIONS OF RELEASE *continued*

PRICE	As at 1 January 2009, the price of the May 2006 Employee Earnings and Hours Expanded CURF via the RADL is \$1,430 including GST.
ACCESSING THE CURF	All clients wishing to access the May 2006 Employee Earnings and Hours Expanded CURF should refer to the ABS website, < http://www.abs.gov.au >Services We Provide>CURF Microdata>Accessing CURF Microdata> and read the 'Responsible Access to ABS Confidentialised Unit Record Files (CURFs) Training Manual', and other related links, before downloading the appropriate Application and Undertaking forms and applying for access.
<i>Australian universities</i>	University clients should refer to the ABS website < http://www.abs.gov.au >Services We Provide>Services for Universities>. The May 2006 Employee Earnings and Hours Expanded CURF can be accessed by universities participating in the ABS/Universities Australia agreement for research and teaching purposes.
<i>Other clients</i>	Other prospective clients should contact the Microdata Access Strategies Section of the ABS via < microdata.access@abs.gov.au > or on (02) 6252 7714.
ORDERING TABLES	Access to the full detail from the survey (including data items excluded from the CURF) is only available through customised tables produced by the ABS. Requirements for these tables should be discussed with Zaneta Georgievski on (08) 9360 5305. For more information about survey data available on request, see Appendix 2 of <i>Employee Earnings and Hours, Australia, May 2006</i> (cat. no. 6306.0).
FURTHER INFORMATION	<p>For further information about accessing the CURF, clients should contact the Microdata Access Strategies Section of the ABS via <microdata.access@abs.gov.au> or on (02) 6252 7714.</p> <p>For further information about the Survey of Employee Earnings and Hours or the data contained in this CURF, contact Michael Gerrity on (02) 6252 5514.</p>

FILE CONTENT

2006 EEH EXPANDED CURF

The May 2006 Employee Earnings and Hours Expanded CURF is available via RADL only.
The CURF contains the files listed below:

Test files

The test files mirror the actual data files, but have random data and random identifiers. These files are on the RADL website and can be downloaded so users can use these to trouble shoot their code prior to submitting RADL jobs.

Data and metadata

EEH06E.dat - this file contains the raw Expanded confidentialised survey data in hierarchical comma delimited ASCII text format.

SAS files

EEH06E.sas7bdat - this file contains the data for the Expanded CURF in SAS for Windows format.

EEH06E.sas - this file contains a SAS program to run the SAS formats.

SPSS files

EEH06E.sav - this file contains the data for the Expanded CURF in SPSS for Windows format.

Stata files

EEH06E.dta - this file contains the data for the Expanded CURF in STATA format.

Information files

6306055002_May 2006.pdf - this is an Adobe Acrobat file that contains this Technical Manual.

6306055002_data items list_May 2006.xls - this file contains the data items contained on the Expanded CURF.

FORMATS.sc2 - this file contains a SAS program to run the SAS formats.

FREQUENCIES_EEH06E.txt - these frequency files contain documentation of the data. Data item code values and category labels are provided with frequencies of each value. These files are in plain text format.

63060_May 2006.pdf - this is the complete publication *Employee Earnings and Hours, Australia, May 2006* (cat. no. 6306.0) in Adobe Acrobat format.

ABS CONDITIONS OF SALE.pdf - this is an Adobe Acrobat file describing the ABS conditions of sale and copyright obligations.

IMPORTANT INFORMATION FOR CURF USERS.pdf - this file directs users to the ABS website for more and up to date information on what is available from the ABS.

RESPONSIBLE ACCESS TO CURFS.pdf - this is an Adobe Acrobat file explaining the CURF users' role and obligations when using confidentialised data.

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APPENDIX DATA ITEMS LIST

DATA ITEMS LIST

For data items and structure, see the Excel spreadsheet entitled '6306055002_data items list_May 2006.xls' accompanying this Technical Manual. This spreadsheet provides the data items and SAS names which relate to the EEH CURF. Every record has an identifier ABSPID.

GLOSSARY

Adult employees	Employees who are 21 years of age or over, and employees under 21 years old who are paid at the full adult rate for their occupation.
Award only	<p>Awards are legally enforceable determinations made by federal or state industrial tribunals that set the terms of employment (pay and/or conditions) usually in a particular industry or occupation. Awards may be the sole mechanism used to set the pay and/or conditions for an employee or group of employees, or alternatively may be used in conjunction with an individual or collective agreement.</p> <p>Employees are classified to the Award or pay scale only category if they are paid at the rate of pay specified in the Award and are not paid more than that rate of pay.</p>
Casual employees	Employees who have been identified as being employed on a casual basis. Casual employees usually receive a higher rate of pay, to compensate for lack of permanency and leave entitlements.
Casual loading	A higher rate of pay to compensate for lack of permanency or leave entitlements.
Collective agreement	<p>An agreement between an employer (or group of employers) and a group of employees (or one or more unions or employee associations representing the employees). A collective agreement sets the terms of employment (pay and/or conditions) for a group of employees, and is usually registered with a Federal or state industrial tribunal or authority.</p> <p>Employees are classified to the Collective agreement category if they had the main part of their pay set by a registered or unregistered collective agreement or enterprise award.</p>
Employees	Persons who worked for a private or public employer and received pay for the reference period in the form of wages or salaries, a commission while also receiving a retainer, tips, piece rates or payment in kind. Persons who operated their own incorporated business with or without hiring employees were also included as employees.
Employer size	A measure of the size of the business in terms of the number of employees within that business. The employer size reflects the size of the business in a particular state or territory and not necessarily the size of the business Australia-wide.
Fixed term employees	Employees who have been identified as being employed on a fixed-term basis. Fixed term employees are employed for a specified period of employment, and may be entitled to paid leave.
Full-time employees	Employees who normally work the agreed or award hours for a full-time employee in their occupation. If agreed or award hours do not apply, employees are regarded as full-time if they usually work 35 hours or more per week.
Individual arrangement	<p>An arrangement between an employer and an individual employee on the terms of employment (pay and/or conditions) for the employee. Common types of individual arrangements are individual contracts, letters of offer and common law contracts. An individual contract (or letter of offer) may specify all terms of employment, or alternatively may reference an award for some conditions and/or in the setting of pay (e.g. overaward payments). Individual contracts may also be registered with a Federal or state industrial tribunal or authority (e.g. as an Australian Workplace Agreement). Working proprietors of incorporated businesses are regarded as having their pay set by individual arrangements, and are identified separately within the individual arrangement category.</p> <p>Employees are classified to the Individual arrangement category if they have the main part of their pay set by an individual contract, registered individual agreement (e.g. Australian Workplace Agreement), common law contract, or if they receive overaward payments by individual agreement.</p>
Junior employees	Employees who are under 21 years of age and are not paid at the full adult rate for their occupation.

GLOSSARY *continued*

Jurisdiction of registered agreement	The federal or state industrial tribunal or authority with which written individual or collective agreements have been certified, approved or registered. Estimates have been compiled based on the workplace relations environment prior to the introduction of the Workplace Relations Amendment (Work Choices) Act 2005 which came into effect in March 2006. Employees based in the Northern Territory, Australian Capital Territory and Victoria are covered by the federal jurisdiction. Employees based in other states may be covered by either the federal or state jurisdiction depending on the circumstances that prevail in the workplace.
Jurisdictional coverage of employees	The workplace relations jurisdiction (i.e Federal or State) that the employee is deemed to be under for pay-setting purposes. See <i>Australian Labour Market Statistics, January 2008</i> (cat. no. 6105.0).
Managerial employees	Employees who are in charge of a significant number of employees and/or have strategic responsibilities in the conduct or operations of the organisation, and usually do not have an entitlement to paid overtime. Includes professionally qualified staff who primarily perform managerial tasks in conjunction with utilising their professional skills. Working proprietors and working directors of their own incorporated businesses are regarded as managerial employees.
Method of setting pay	How the main part of an employee's pay is set. Employees are classified to one of the following categories: Award only; Collective agreement; or Individual arrangement. Employees classified to the Collective agreement or Individual arrangement categories are further classified according to whether the agreement is registered with a Federal or state industrial tribunal or authority.
Non-managerial employees	Employees who are not managerial employees (as defined above), including non-managerial professionals and some employees with supervisory responsibilities.
Occupation	Classified according to the <i>Australian and New Zealand Standard Classification of Occupations (ANZSCO), First Edition, 2006</i> (cat. no. 1220.0).
Ordinary time cash earnings	Payment for award, standard or agreed hours of work, including allowances, penalty payments, payments by measured result and regular bonuses and commissions. Amounts salary sacrificed are also included. Excluded are non-cash components of salary packages, overtime payments, retrospective pay, pay in advance, leave loadings, severance pay, and termination and redundancy payments.
Ordinary time hours paid for	Award, standard or agreed hours of work, paid for at the ordinary time rate. Included are stand-by or reporting time which are part of standard hours of work, and that part of annual leave, paid sick leave and long service leave taken during the reference period. Ordinary time hours paid for was not collected for managerial employees.
Overtime cash earnings	Payment for hours in excess of award, standard or agreed hours of work.
Overtime hours paid for	Hours paid for in excess of award, standard or agreed hours of work. Overtime hours paid for was not collected for managerial employees.
Part-time employees	Employees who normally work less than the agreed or award hours for a full-time employee in their occupation. If agreed or award hours do not apply, employees are regarded as part-time if they usually work less than 35 hours per week.
Permanent employees	Employees who have been identified as being employed on a permanent basis. Permanent employees are usually employed on an ongoing basis and are entitled to paid annual and sick leave.
Salary sacrifice	An arrangement under which an employee agrees contractually to forgo part of the remuneration, which the employee would otherwise receive as wages and salaries, in return for the employer or someone associated with the employer providing benefits of a similar value (Australian Taxation Office).

GLOSSARY *continued*

Sector	Public sector comprises local government authorities and all government departments and agencies created by, or reporting to, the Commonwealth, or state/territory parliaments. The private sector comprises all organisations not classified as public sector.
Total hours paid for	Equal to ordinary time hours paid for plus overtime hours paid for. Total hours paid for was not collected for managerial employees.
Weekly total cash earnings	Weekly total cash earnings of employees is regular wages and salaries in cash and is equal to weekly ordinary time cash earnings plus weekly overtime cash earnings.
Working proprietor of incorporated business	A working proprietor of an incorporated business is considered to be an employee of their own business. As working proprietors of incorporated businesses differ from other employees in having the power to determine their own pay and working hours (subject to the earnings of the business and other factors).

FOR MORE INFORMATION . . .

INTERNET

www.abs.gov.au the ABS website is the best place for data from our publications and information about the ABS.

INFORMATION AND REFERRAL SERVICE

Our consultants can help you access the full range of information published by the ABS that is available free of charge from our website. Information tailored to your needs can also be requested as a 'user pays' service. Specialists are on hand to help you with analytical or methodological advice.

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