



Technical Manual

Adult Literacy and Life Skills Survey: Confidentialised Unit Record File

Australia

2006

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AUSTRALIAN BUREAU OF STATISTICS

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- For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or the National Centre for Education and Training Statistics on Canberra (02) 6252 6175.

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ABBREVIATIONS

ABS	Australian Bureau of Statistics
ALL	International Adult Literacy and Life Skills Survey
ALLS	Adult Literacy and Life Skills Survey
ANZSCO	Australian and New Zealand Standard Classification of Occupations
ANZSIC	Australian and New Zealand Standard Industrial Classification
ARA	any responsible adult
ASCED	Australian Standard Classification of Education
CAI	computer assisted interviewing
CTB	core task booklet
CURF	confidentialised unit record file
DEEWR	Australian Government Department of Education, Employment and Workplace Relations
DEST	Australian Government Department of Education, Science and Training
DEWR	Australian Government Department of Employment and Workplace Relations
IALS	International Adult Literacy Survey
MTB	main task booklet
nfd	not further defined
OECD	Organisation for Economic Co-operation and Development
RADL	Remote Access Data Laboratory
RSE	relative standard error
SAL	Survey of Aspects of Literacy
SAS	software package for preparing and executing computerised data analysis
SE	standard error
SPSS	software package for preparing and executing computerised data analysis
STATA	software package for preparing and executing computerised data analysis

INTRODUCTION

OVERVIEW

This paper provides information about the release of microdata from the 2006 Adult Literacy and Life Skills Survey (ALLS). The data are available as a Basic Confidentialised Unit Record File (CURF) and an Expanded CURF. The Basic CURF can be accessed on CD-ROM, and/or via the Australian Bureau of Statistics (ABS) Remote Access Data Laboratory (RADL). The Expanded CURF is available via RADL only.

The RADL is an on-line database query system, under which microdata are held on a server at the ABS, to which users can submit programs in SAS, SPSS or STATA software to interrogate and analyse the data, and access the results. Further information about the RADL facility and information about obtaining access to the file is available on the ABS web site <<http://www.abs.gov.au>> (see Services we Provide/CURFs).

More detailed information to assist in using the CURFs, and in interpreting the data, is also provided in the documentation on or accompanying the CURFs.

BACKGROUND TO SURVEY

The ALLS was conducted in Australia as part of an international study coordinated by Statistics Canada and the Organisation for Economic Co-operation and Development (OECD). The conduct of ALLS in Australia was jointly funded by the former Department of Education Science and Training (DEST), the former Department of Employment and Workplace Relations (DEWR) (which have amalgamated to form the Department of Education, Employment and Workplace Relations (DEEWR)) and the ABS. Other countries that have participated, or are currently taking part, in the study include the United States of America, Bermuda, Canada, Italy, Mexico, Norway, Switzerland, Hungary, the Netherlands, New Zealand and South Korea.

The ALLS is designed to identify and measure literacy, numeracy and problem-solving skills, which can be linked to social and economic characteristics both across and within countries. An additional literacy measure, health literacy, is also available to countries who request it, as Australia has done for this survey. The key objectives of the survey are to profile the distribution of prose literacy, document literacy, numeracy, analytic reasoning and health literacy in the adult population (15 to 74 years), and to identify sub populations whose performance in these skill domains may place them at risk.

The ALLS is the second survey of its type conducted in Australia. Its predecessor, the International Adult Literacy Survey (IALS), was conducted in Australia in 1996 as the Survey of Aspects of Literacy (SAL). Published results and a Basic CURF on CD-ROM are available for the 1996 SAL from the ABS website. Of the five literacy domains available from the 2006 ALLS only two, prose and document literacy, are directly comparable to those derived from the SAL. The quantitative literacy domain, derived from the 1996 SAL, was narrowly focused on numeracy competency and did not necessarily emphasise real-life tasks which demand more diverse numeracy skills. Consequently, an expanded concept of numeracy has been incorporated in the 2006 ALLS numeracy scale. As a result of these conceptual differences, the two scales cannot be compared. The problem solving and the health literacy domains are additions to the 2006 ALLS and hence no time series information is available. Key findings from the 2006 ALLS are presented in *Adult Literacy and Life Skills, Summary results, Australia* (cat. no 4228.0).

SURVEY METHODOLOGY

METHODOLOGY

The ALLS collected information from July 2006 to January 2007 from 8,988 private dwellings throughout non-remote areas of Australia. The sample design ensured that within each state and territory, each household had an equal chance of selection. Information was obtained via a face-to-face interview from one person aged 15 to 74 years in the selected household. If there was more than one person of this age, the person interviewed was selected at random.

While the survey was initially developed by Statistics Canada, the ABS together with DEST, DEWR and a wide range of stakeholders with interests in adult literacy, reviewed the international survey content. Some minor adaptations to survey questions and exercises were made to suit the Australian context. As for all ABS surveys, extensive testing was carried out to ensure that the survey would collect objective and high quality data.

The 2006 ALLS was conducted under the authority of the Census and Statistics Act 1905. The ABS sought the willing cooperation of households in the survey. The confidentiality of all information provided by respondents is guaranteed. Under this legislation, the ABS cannot release identifiable information about households or individuals. All aspects of the ALLS implementation were designed to conform to the Information Privacy Principles set out in the Privacy Act 1988, and the Privacy Commissioner was informed of the details of the proposed survey.

Standard ABS interviewing techniques were used and the questionnaire was designed to be administered by experienced ABS interviewers, who had received specific training on this survey. The questionnaire was further supported by detailed interviewer instructions, covering general procedural issues as well as specific instructions relating to individual questions. As for all ABS surveys, standard ABS procedures (including office coding) and systems ensure the collection of objective and high quality data.

Access to the questions used in the survey are available on request by contacting the National Centre for Education and Training Statistics on Canberra (02) 6252 6175. However, access to the task booklets is not available.

SCOPE AND COVERAGE

Only people who were usual residents of private dwellings in Australia were covered by the survey. Private dwellings are houses, flats, home units and any other structures used as private places of residence at the time of the survey. People usually resident in non-private dwellings such as hotels, motels, hostels, hospitals and short-stay caravan parks were not included in the survey. Usual residents are those who usually live in a particular dwelling and regard it as their only or main home. Visitors to private dwellings are not included in the interview for that dwelling. However, if they are a usual resident of another dwelling that is in the scope of the survey they have a chance of being selected in the survey or, if not selected, they will be represented by similar persons who are selected in the survey.

The ALLS was conducted in both urban and rural areas in all states and territories, except for very remote parts of Australia. Queensland, South Australia, Western Australia and the Northern Territory have very remote areas. With the exception of the Northern Territory, the population living in very remote areas represents only a small proportion of the total population (approximately 2%). For this, and other practical reasons, no adjustment was made to state population benchmarks (population benchmarks are discussed below)

SCOPE AND COVERAGE

continued

when deriving survey results. This exclusion is unlikely to impact on national estimates, and will only have a minor impact on any aggregate estimates that are produced for individual states and territories, except the Northern Territory where the excluded population accounts for over 20% of persons.

Persons aged 15 to 74 years were included in the survey. The estimated Australian resident population at December 2006, after the exclusion of people living in non-private dwellings and very remote areas of Australia, was 20,182,511 of which 15,105,435 were aged 15 to 74 years.

The following non-residents were excluded from resident population estimates used to benchmark the survey results, and were not interviewed:

- diplomatic personnel of overseas governments;
- members of non-Australian defence forces (and their dependants) stationed in Australia; and
- persons whose usual place of residence was outside Australia.

WEIGHTING AND BENCHMARKING

Weighting

Weighting is the process of adjusting results from a sample survey to infer results for the total population. To do this, a 'weight' is allocated to each sample unit e.g. a person or a household. The weight is a value which indicates how many population units are represented by the sample unit.

The first step in calculating weights for each person or household in the 2006 ALLS was to assign an initial weight, which is equal to the inverse of the probability of being selected in the survey. For example, if the probability of a person being selected in the survey was 1 in 600, then the person would have an initial weight of 600 (that is, they represent 600 people).

Benchmarking

The initial weights were calibrated to align with independent estimates of the population of interest, referred to as 'benchmarks'. Weights calibrated against population benchmarks ensure that the survey estimates conform to the independently estimated distribution of the population, by State or Territory, age, sex and area of usual residence, rather than to the distribution within the sample itself. Calibration to population benchmarks helps to compensate for over- or under-enumeration of particular categories of persons which may occur due to either the random nature of sampling or non-response.

The 2006 ALLS was benchmarked to the estimated resident population (ERP) aged 15 to 74 years living in private dwellings in each state and territory, excluding the ERP living in very remote areas of Australia, at December 2006. The ERP estimates for 2006 were based on results from the 2001 Census of Population and Housing. Therefore the ALLS estimates do not (and are not intended to) match estimates for the total Australian resident population obtained from other sources (which include persons and households living in non-private dwellings, such as hotels and boarding houses, and in very remote parts of Australia). Benchmark variables used in the 2006 ALLS, with corresponding level of detail, were:

- State or territory of usual residence — all states and territories;
- Age of person — in five year age groups;
- Sex of person — males and females; and

SURVEY METHODOLOGY *continued*

Benchmarking continued

- Area of usual residence — capital city and balance of state.

Seasonal effects

The estimates from the 2006 ALLS are based on information collected from July 2006 through to January 2007, and due to seasonal effects they may not be fully representative of other time periods in the year. For example, the ALLS asked standard ABS questions on labour force status to determine whether a person was employed. Employment is subject to seasonal variation throughout the year. Therefore, the ALLS results for employment could have differed if the ALLS had been conducted over the whole year or in a different part of the year.

SURVEY CONTENT

INFORMATION COLLECTED

The ALLS is divided into the following sections:

- Background Questionnaire (including the household questionnaire); and
- Assessment component:
 - Core Task Booklet; and
 - Main Task Booklet

Background Questionnaire

The initial household component of the survey was designed to collect basic information from a responsible adult about all persons in the selected household— age, sex, marital status, country of birth.

A personal face-to-face interview was then conducted with one randomly selected person, aged 15 to 74 years, on the following topics:

- General demographic information
- Linguistic information
 - first language learned and most used at home
 - self-assessed proficiency in spoken English
 - reading and writing proficiency in non-English language
- Parental information
 - occupation
 - educational attainment
 - country of birth
- Labour Force activities
 - current labour force status
 - labour force activities in the last 12 months
 - hours worked
 - occupation and industry of main job
 - job tenure
- Literacy and numeracy practices at work and daily life
- Frequency of reading and writing activities
- Participation in education and learning
 - involvement in different types of learning
 - incidence of education and learning
 - reasons for pursuing education and learning
 - volume of education undertaken
- Social capital and well-being
 - volunteering, civic participation
 - physical and psychological well being
- Information and communication technology
 - access, types and usage
 - purposes and intensity of computer use
 - purposes and intensity of Internet use
 - self assessment of skills
- Personal and household income

Further information about the content of the survey can be obtained by referring to the CURF data item list available (as a datacube) with this technical manual on the ABS website <www.abs.gov.au>. Also terms explained in the Glossary included in this publication. Survey questions used to collect the above information are available on

SURVEY CONTENT *continued*

Background Questionnaire continued

request by contacting the National Centre for Education and Training Statistics on Canberra (02) 6252 6175.

Core task booklet

After the background questionnaire, the randomly selected person completed the core task booklet (CTB). The CTB component is designed to identify respondents who are unlikely to be able to complete the exercises included in the main task booklet (MTB). The CTB contains six basic questions for the respondent to complete. Only respondents who correctly answered a minimum of three questions for the CTB moved on to the MTB. Approximately 2% of respondents did not successfully complete the CTB.

Main task booklet

The exercises in the MTB, which are more numerous and diverse than those in the CTB in complexity and subject matter, are designed to provide an understanding of the literacy skills of the general adult population.

Each booklet consists of two, of a possible eight, blocks of questions. The blocks of questions measure different skill domains:

- Blocks 1 to 4 measure Prose and Document Literacy
- Blocks 5 to 6 measure Numeracy
- Blocks 7 to 8 measure Problem-solving

These blocks were then distributed across 28 different booklets with different combinations of blocks. This was to ensure a broad coverage of the skill domains.

A fifth scale measuring health literacy proficiency was produced as a by-product of the above testing process. The production of the health literacy scale was an additional service provided to participating countries. The survey contained 191 daily tasks that were judged to measure health-related activities in five areas: health promotion (60 items), health protection (65 items), disease prevention (18 items), health-care and disease management (16 items), and navigation (32 items).

MEASURES OF LITERACY

The assessment component of the ALLS provides information on knowledge and skills in the following five domains: prose literacy, document literacy, numeracy, problem solving and health literacy. In the 1996 SAL only three domains were assessed. These domains were prose literacy, document literacy and quantitative literacy. The addition of problem-solving, and health literacy as well as the expansion of the quantitative literacy to numeracy provides extra dimensions to the assessment of adult skills. A number of prose and document literacy tasks administered in the 1996 SAL have been retained for the 2006 ALLS to provide comparison of levels of literacy over time. Both SAL and ALLS measured skills in the official language, which in Australia is English.

The five domains can be defined as follows:

- Prose Literacy: The knowledge and skills needed to understand and use various kinds of information from text including editorials, news stories, brochures and instructions manuals;
- Document Literacy: The knowledge and skills required to locate and use information contained in various formats including job applications, payroll forms, transportation schedules, maps, tables and charts;
- Numeracy: The knowledge and skills required to effectively manage and respond to the mathematical demands of diverse situations;

SURVEY CONTENT *continued*

MEASURES OF LITERACY

continued

- Problem Solving: Problem solving is goal-directed thinking action in situations for which no routine solution procedure is available. The understanding of the problem situation and its step-by-step transformation, based on planning and reasoning, constitute the process of problem solving; and
- Health literacy: Health literacy is a by-product of the above domains and is defined as the knowledge and skills required to understand and use information relating to health issues such as drugs and alcohol, disease prevention and treatment, safety and accident prevention, first aid, emergencies, and staying healthy.

SKILL LEVELS

In ALLS, each respondent was required to complete one MTB which consisted of tasks from two of the possible eight blocks of questions. The full collection of blocks is required to cover all the concepts to be tested. However, individual respondents were not tested on all skill domains. Each respondent is given a score for each domain, based on their proficiency in their allocated MTB and responses in the background questionnaire.

For each literacy domain, proficiency is measured on a scale ranging from 0 to 500 points. Each person's score denotes a point at which they have an 80 per cent chance of successfully completing tasks with a similar level of difficulty. To facilitate analysis, these continuous scores have been grouped into 5 skill levels (only 4 levels were defined for the problem solving scale) with Level 1 being the lowest measured level of literacy. The levels indicate specific sets of abilities, and therefore, the thresholds for the levels are not equidistant. As a result, the ranges of scores in each level are not identical. In fact, for the prose literacy, document literacy, numeracy and health literacy domains, Level 1 captures almost half of the scale. The thresholds for the problem solving domain are set somewhat differently as Level 1 covers precisely half of the scale.

The relatively small proportions of respondents who actually reached Level 5 often resulted in unreliable estimates of the number of people at this level. For this reason, whenever results are presented in the main report by proficiency level, Levels 4 and 5 are combined.

Level 3 is regarded by the survey developers as the "minimum required for individuals to meet the complex demands of everyday life and work in the emerging knowledge-based economy" (Learning a Living: First Results of the Adult Literacy and Life Skills Survey, available from Statistics Canada's website (www.statcan.ca)). For more information on the literacy domains, skill levels and details on how literacy is measured, refer to the Appendices in the *Adult Literacy and Life Skills Survey: User Guide* (cat. no. 4228.0.55.002) available from the ABS website (www.abs.gov.au), or the above report from Statistics Canada.

USING THE CURF DATA

MICRODATA CONFIDENTIALITY

The data are released under the provisions of the Census and Statistics Act 1905. This Act allows for the release of data 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 confidentiality of respondents. These include removing some items from the CURF, reducing the level of detail shown on the CURF for some items, changing some characteristics such as state or area for some records and dropping some records. Data on the 2006 ALLS Basic and Expanded CURFs will therefore not exactly match published data.

Steps to confidentialise the datasets made available on the Basic and Expanded CURFs are taken in such a way as to ensure the integrity of the dataset and optimise its 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 on either CURF may be available as statistics in tabulated form on request. A full list of all of the data items on the 2006 ALLS Basic and Expanded CURFs is provided as a data cube with this technical manual on the ABS website <www.abs.gov.au>.

The 2006 ALLS Basic and Expanded CURFs contain 8,988 confidentialised respondent records from the survey. Subject to the limitations of sample size and the data classifications used, it is possible to manipulate the data, produce tabulations and undertake statistical analyses to individual specifications.

HOW TO USE THE PLAUSIBLE LITERACY SCORES

In order to minimise respondent burden, not all literacy domains were directly assessed for each respondent. ALLS used a matrix-sampling design to assign assessment booklets to individuals so that a comprehensive picture of the literacy achievements across the country could be assembled from the components completed by each individual. ALLS relied on Item Response Theory scaling to combine the individual responses to provide accurate estimates of literacy achievement in the population. With this approach, however, aggregations of individuals scores can lead to biased estimates of population characteristics. To address this, the ALLS scaling procedures also used a multiple imputation or "plausible scores" methodology to obtain proficiency scores in literacy for all individuals, even though each individual responded to only a part of the assessment item pool. By using all available data, five "plausible scores" were generated for each respondent for each of the five domains measured.

For simple point estimates in any of the literacy domains, it is sufficient to use one of the corresponding five plausible scores, chosen at random (e.g. prose1, document1, numeracy1, problem solving1 and health1) to derive population estimates of the levels of literacy. However, a more robust point estimate can be obtained by taking the average of the five weighted estimates produced from each of the five plausible scores, which can be computed as follows:

$$\hat{\theta}_{mean} = \frac{1}{5} \sum_{i=1}^5 (\hat{\theta}_i)$$

where:

$\hat{\theta}_{mean}$ = the mean value of the five weighted sample estimates of the five plausible values $\hat{\theta}_i$

USING THE CURF DATA *continued*

HOW TO USE THE PLAUSIBLE LITERACY SCORES *continued*

All literacy estimates presented in *Adult literacy and Life Skills, Summary results, Australia* (cat. no 4228.0), are obtained by taking the average of the five weighted estimates from each of the plausible values.

CALCULATING TOTAL STANDARD ERROR *Sampling error*

The estimates are based on information obtained from the occupants of samples of dwellings. Therefore, the estimates are subject to sampling variability and may differ from the figures that would have been produced if information had been collected for all dwellings. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied because only a sample of dwellings was included. There are about two chances in three that the sample estimate will differ by less than one SE from the figure that would have been obtained if all dwellings had been included, and about 19 chances in 20 that the difference will be less than two SEs.

Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate. For estimates of population sizes, the size of the SE generally increases with the level of the estimate, so that the larger the estimate the larger the SE. However, the larger the sampling estimate the smaller the SE in percentage terms (RSE). Thus, larger sample estimates will be relatively more reliable than smaller estimates.

The magnitude of the sampling error associated with a sample estimate depends on the following factors:

- **Sample design:** There are many different methods which could have been used to obtain a sample from which to collect data. The final design attempted to make survey results as accurate as possible within cost and operational constraints.
- **Sample size:** The larger the sample on which the estimate is based, the smaller the associated sampling error.
- **Population variability:** The third factor which influences sampling error is the extent to which people differ on the particular characteristic being measured. This is referred to as the population variability for that characteristic. The smaller the population variability of a particular characteristic, the more likely it is that the population will be well represented by the sample, and therefore the smaller the sampling error. Conversely, the more variable the characteristic, the greater the sampling error.

RSE's for estimates from the 2006 ALLS are available in 'actual' form, i.e. the RSE for each estimate produced has been calculated using replicate weights. Delete-a-group jack knife replicate weighting is a process whereby a primary sampling unit (PSU) of persons in the sample are assigned a zero weight and then the remaining records are reweighted to the survey benchmark population. For the 2006 ALLS this process was repeated 60 times to produce 60 replicate weights. These replicate weights are used for calculating the variances of the estimate for each replicate group about the main weight estimate, by squaring the difference and summing these differences over all of the 60 replicate groups. The difference between the replicate estimate and the main weight estimate is then used in calculating the sampling error of the estimate.

USING THE CURF DATA *continued*

Sampling error *continued*

The formula used for the sampling variance is:

$$var_{smp}(\hat{\theta}_i) = \frac{59}{60} \sum_{g=1}^{60} (\hat{\theta}_{i,(g)} - \hat{\theta}_i)^2$$

where:

$\hat{\theta}_i$ = the five plausible (and mean) literacy scores

g = the 60 replicates estimates of the five plausible (and mean) literacy scores

Literacy Score Imputation Variance

In contrast to most other ABS surveys, the 2006 ALLS estimates also include significant imputation variability, due to the use of multiple possible MTB questionnaires and the complex literacy scaling procedures. The effect of the plausible scoring methodology on the estimation can be reliably estimated and is included in the calculated SEs.

An accepted procedure for estimating the imputation variance using plausible values is to measure the variance of the plausible scores (with an appropriate scaling factor) as follows:

$$Var_{imp}(\hat{\theta}_{mean}) = \left(1 + \frac{1}{M}\right) \sum_{i=1}^M \frac{(\hat{\theta}_i - \hat{\theta}_{mean})^2}{(M-1)}$$

where:

$\hat{\theta}_{mean}$ = the mean estimate of the plausible scores

i = 1-5 respectively, for the plausible scores $\hat{\theta}_1$ to $\hat{\theta}_5$

M = the total number of plausible scores used ($M = 5$ for ALLS)

Total Standard Error

Together, the sampling variance and imputation variance can be added to provide a suitable measure of the total variance for an estimate. Then the total SE can be obtained as the square root of the total variance. This SE indicates the extent to which an estimate might have varied by chance because only a sample of persons was included, and/or because of the significant imputation used in the literacy scaling procedures.

Another common measure used in the 2006 ALLS is the Total Relative Standard Error (RSE), which is obtained by expressing the Total SE as a percentage of the estimate to which it relates:

$$RSE\% = (SE/Estimate) \times 100$$

CONDITIONS OF USE OF GEOGRAPHIC AND SEIFA ITEMS

To enable CURF users greater flexibility in their analyses, the ABS has included two Socio-economic Indexes for Areas (SEIFA) and sub-state geography items on the 2006 ALLS Expanded CURF. This data is not available on the Basic CURF.

Cross-tabulations by several of these items simultaneously will produce cells relating to some small geographic regions. Tables showing multiple data items, cross-tabulated by more than one SEIFA and/or sub-state geography at a time, are not permitted due to the detailed information about small geographical regions that could be presented.

However, simple cross-tabulations of population counts by multiple SEIFA or sub-state geographic data items may be useful for clients in order to determine which geography or SEIFA item to include in their primary analysis, and such output is permitted. See the Glossary for the definitions of the SEIFA data items included on the 2006 ALLS Expanded CURF. For more information about SEIFA see *Information Paper: Census of Population and Housing – Socio-economic Indexes for Areas, Australia* (cat. no. 2039.0).

USING THE CURF DATA *continued*

SPECIAL CODES	For weekly earnings in main job, personal gross weekly income and household equivalised gross weekly income, certain values are reserved as special codes and must not be added as if they were quantitative values. For example, weekly earnings in main job code '999999998' refers to income/earning unknown or not stated. The value of these codes are available in the CURF data item list available on the ABS website < www.abs.gov.au >.
POPULATIONS	The appropriate populations should always be used when running data from the CURFs. For example, if the population of interest is currently employed, use population variable 'All persons aged 15 to 74 who are currently employed' (POP9). A full list of the populations from the survey can be found in the CURF data item list available on the ABS website < www.abs.gov.au >.
IDENTIFIERS	Each record has an individual person identifier called ABSPID.
MULTIPLE RESPONSE FIELDS	A number of the questions asked during the ALLS allowed respondents to give multiple responses. On the CURF, each response category is treated as a separate data item. Each data item lists the relevant population and subsequent records that were not applicable. An example of this is the "All sources of personal income" question which had nine response categories which was collapsed to five output categories. From these categories five separate data items have been produced - K5BAUCUA to K5BAUCUE. Each data item has either a 'Yes' (1) or 'Not applicable' (0) response.
DATA RECONCILIATION	Steps to confidentialise the data set made available on the CURFs are taken in such a way as to optimise the content of the file while maintaining the confidentiality of respondents. As a result, it may not be possible to exactly reconcile all statistics produced from the CURFs with published statistics.
COMPARABILITY WITH THE 1996 SAL BASIC CURF	For users who wish to conduct time series analysis between the 2006 ALLS Basic CURF and the 1996 SAL Basic CURF, as a guide refer to the index tab of the 2006 ALLS data item list to determine which data items are comparable between the two surveys. The 2006 ALLS data item list was released as part of the <i>Adult Literacy and Life Skills Survey: User Guide</i> (cat. no. 4228.0.55.002) available on the ABS website < www.abs.gov.au >. For a full list of the 1996 SAL Basic CURF data items, contact the National Centre of Education and Training Statistics on (02) 6252 6175. A full list of data items available on the 2006 ALLS Basic and Expanded CURFs is provided as a data cube with this technical manual on the ABS website.

FILE CONTENT

FILE CONTENT

The 2006 ALLS Basic CURF is distributed on a single CD-ROM or via the RADL. The 2006 ALLS Expanded CURF is distributed via RADL only. Both CURFs are available in SAS, SPSS and STATA formats.

ALLS BASIC CURF

The 2006 ALLS Basic CURF contains the files listed below:

- ALS2006B.SAS7BDAT- the 2006 ALLS Basic CURF file in SAS for Windows format.
- FORMATS.SAS7BCAT - the format file which provides labels for associated codes in the SAS version of the 2006 ALLS Basic CURF.
- ALS2006B.SAV - the 2006 ALLS Basic CURF file in SPSS format.
- ALS2006B.DTA - the 2006 ALLS Basic CURF file in STATA format.

Basic CURF files (only available for CD-ROM users)

The file ALS2006B.CSV contains the raw confidentialised survey data in a comma separated file (CSV) format.

The SAS program ALS06B.SAS can be used to translate data from the CSV format to SAS. It also creates the formats library and attributes the formats to relevant variables. This file is for use with other analysis packages and describes the CSV file data. Relevant changes will need to be made to reflect the load statement for your analysis package.

Basic CURF test files (only available for RADL CURF users)

The test files mirror the actual data files, but have random data and random identifiers. The test files can be used to troubleshoot SAS, SPSS or STATA code or to solve any syntax problems prior to submitting RADL jobs. The test files can also test code without the restrictions imposed by RADL. Data from the test files will not match data from the actual ALLS CURF files:

- ALS2006B.SAS7BDAT- the 2006 ALLS Basic CURF file in SAS for Windows format test file.
- FORMATS.SAS7BCAT - the format file which provides labels for associated codes in the SAS version of the 2006 ALLS Basic CURF test files.
- ALS2006B.SAV - the 2006 ALLS Basic CURF file in SPSS format test file.
- ALS2006B.DTA - the 2006 ALLS Basic CURF file in STATA format test file.

Information files

- 4228055003_ALLS_2006_CURF_Data_ITEMS.XLS - lists the data items included on the CURFs, including details of categories and code values for each data item. This is in an Excel spreadsheet format.
- FREQUENCIES_ALLS_BASIC_CURF.TXT - contains documentation relating to the 2006 ALLS Basic CURF file. Data item code values and category labels are provided with both unweighted and weighted frequencies of each code value. The file is in plain text format.
- 42280_2006.PDF- is an acrobat file that contains the Summary Results publication for the 2006 ALLS.
- 4228055002_2006.PDF - is an acrobat file that contains the User Guide for the 2006 ALLS.
- 4228055003_2006.PDF - is an acrobat file that contains the Technical Manual for the 2006 ALLS CURFs.
- Responsible access to CURFs.PDF - is an acrobat file that explains CURF users' roles and obligations when using confidentialised data.

FILE CONTENT *continued*

ALLS EXPANDED CURF

The 2006 ALLS Expanded CURF contains the files listed below:

- ALS2006E.SAS7BDAT- the 2006 ALLS Expanded CURF file in SAS for Windows format.
- ALS2006E.SAV - the 2006 ALLS Expanded CURF file in SPSS format.
- ALS2006E.DTA - the 2006 ALLS Expanded CURF file in STATA format.

Expanded CURF test files

The test files mirror the actual data files, but have random data and random identifiers. The test files can be used to troubleshoot SAS, SPSS or STATA code or to solve any syntax problems prior to submitting RADL jobs. The test files can also test code without the restrictions imposed by RADL. Data from the test files will not match data from the actual ALLS CURF files:

- ALS2006E.SAS7BDAT- the 2006 ALLS Expanded CURF file in SAS for Windows format test file.
- ALS2006E.SAV - the 2006 ALLS Expanded CURF file in SPSS format test file.
- ALS2006E.DTA - the 2006 ALLS Expanded CURF file in STATA format test file.

Information files

- 4228055003_ALLS_2006_CURF_Data_ITEMS.XLS - lists the data items included on the CURFs, including details of categories and code values for each data item. This is in an Excel spreadsheet format.
- FREQUENCIES_ALLS_EXPANDED_CURF.TXT - contains documentation relating to the 2006 ALLS Expanded CURF file. Data item code values and category labels are provided with both unweighted and weighted frequencies of each code value. The file is in plain text format.
- 42280_2006.PDF- is an acrobat file that contains the Summary Results publication for the 2006 ALLS.
- 4228055002_2006.PDF - is an acrobat file that contains the User Guide for the 2006 ALLS.
- 4228055003_2006.PDF - is an acrobat file that contains the Technical Manual for the 2006 ALLS CURFs.
- Responsible access to CURFs.PDF - is an acrobat file that explains CURF users' roles and obligations when using confidentialised data.

CONDITIONS OF RELEASE

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The 2006 ALLS Basic and Expanded CURFs are 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 CURFs have been designed so that the information on the files are not likely to enable the identification of the particular person or organisation to which it relates.

The Australian Statistician's approval is required for each release of a CURF. In addition, the ABS requires all organisations and individuals within organisations who purchase or are seeking to use a CURF to sign an undertaking to abide by the legislative restrictions related to usage before access to the CURF will be granted. The undertaking includes, among other conditions, that in using the data people will:

- use the information only for the statistical purposes specified in the Schedule to the Undertaking;
- not attempt to identify particular persons or organisations;
- not disclose, either directly or indirectly, the information to any other person or organisation other than members of the 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 information with any other list of persons or organisations;
- comply with any other direction or requirement specified in the ABS Responsible Access to ABS CURFs Training Manual;
- not attempt to access the information 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 CURF data to produce information of a statistical nature. 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 web site <www.abs.gov.au> (see Services We Provide/CURF Microdata/Accessing CURF Microdata/Responsible Access to ABS CURFs).

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 microdata.access@abs.gov.au.

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	The price of the 2006 ALLS Basic or Expanded CURFs, as at January 2008, is \$1320, including GST. A bundled price of \$1980 (including GST) is available where clients request access to both the Basic (whether on CD-ROM or RADL) and Expanded CURFs in one single application.
ACCESSING THE CURFS	All clients wishing to access the 2006 ALLS Basic or Expanded CURF should complete the application and undertaking available on the ABS web site < www.abs.gov.au > (Services We Provide/CURF Microdata). Before completing the application form, clients should read the 'Responsible Access to ABS Confidentialised Unit Record Files (CURFs) Training Manual' and related information which is also available from the ABS web site < www.abs.gov.au >.
AUSTRALIAN UNIVERSITIES	University clients should refer to the ABS web site < www.abs.gov.au > (Services to Universities). The 2006 ALLS Basic and Expanded CURFs can be accessed by universities participating in the ABS/Australian Vice Chancellors Committee CURF agreement for research and teaching purposes.
FURTHER INFORMATION	For further information about accessing the CURFs, clients should contact the Microdata Access Strategies Section of the ABS at microdata.access@abs.gov.au . or on (02) 6252 7714.

GLOSSARY

Australian Standard Classification of Education (ASCED)	The ASCED is a national standard classification which includes all sectors of the Australian education system, that is, schools, vocational education and training, and higher education. From 2001, ASCED replaced a number of classifications used in administrative and statistical systems, including the AUSTRALIAN BUREAU OF STATISTICS CLASSIFICATION OF QUALIFICATIONS (ABSCQ). The ASCED comprises two classifications: Level of Education and Field of Education. See <i>Australian Standard Classification of Education (ASCED), 2001</i> (cat. no. 1272.0).
Certificate not further defined	Survey responses were coded to Certificate not further defined (n.f.d.) when there was not enough information to code them to Certificate I, II, III or IV in the <i>Australian Standard Classification of Education (ASCED), 2001</i> (cat. no. 1272.0), Level of Education classification.
Country of birth	Country of birth has been classified according to the <i>Standard Australian Classification of Countries (SACC), 1998</i> (cat. no. 1269.0).
Document Literacy	The knowledge and skills required to locate and use information contained in various formats including job applications, payroll forms, transportation schedules, maps, tables and charts.
Educational Attainment	Highest level of schooling or non-school educational qualification completed, e.g. trade qualification, certificate or university degree. These qualifications may have been obtained in any country and need not have been accredited or recognised in Australia. In an economic sense, educational attainment provides a measure of the stock of skill and participation provides a flow measure.
Education Participation	Participation in education and learning is an indicator of access to skill learning opportunities. Lifelong learning is a key policy issue for OECD nations and has been connected to economic prosperity through the promotion of skill development within nations. Measures of participation in education and learning provide indicators of participation in lifelong learning and the opportunity to link such participation to directly assessed skill levels. In an economic sense, educational attainment provides a measure of the stock of skill and participation provides a flow measure.
Educational institution or organisation	An institution or organisation providing education or training such as Universities, TAFEs, Schools, organisations which provide Adult and Community Education, Business Colleges and Professional or Industry Associations.
Employed	Persons who, during the reference week: <ul style="list-style-type: none"> ■ worked for one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (comprising employees, employers and own account workers); or ■ worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers); or ■ were employees who had a job but were not at work; or ■ were employers or own account workers who had a job, business or farm, but were not at work.
Employed full time	Employed persons who usually worked 35 hours or more a week (in all jobs) and those who, although usually working less than 35 hours a week, worked 35 hours or more during the reference week.
Employed part time	Employed persons who usually worked less than 35 hours a week (in all jobs) and either did so during the reference week, or were not at work in the reference week.

GLOSSARY *continued*

Equivalised gross weekly household Income — deciles

These are groupings of 10% of the total population of Australia when ranked in ascending order according to equivalised gross weekly household income.

The decile boundaries for equivalised gross weekly household income for the 2006 ALLS population were:

- Lowest decile: Less than \$255
- Second decile: \$255 to \$330
- Third decile: \$331 to \$449
- Fourth decile: \$450 to \$577
- Fifth decile: \$578 to \$701
- Sixth decile: \$702 to \$824
- Seventh decile: \$825 to \$972
- Eighth decile: \$973 to \$1,200
- Ninth decile: \$1,201 to \$1,584
- Tenth decile: \$1,585 or more

Field of education

Field of Education is defined as the subject matter of an educational activity. Fields of education are related to each other through the similarity of subject matter, through the broad purpose for which the education is undertaken, and through the theoretical content which underpins the subject matter. The field of education is classified according to the *Australian Standard Classification of Education (ASCED), 2001* (cat. no. 1272.0)

First language spoken

First Language Spoken is defined as the first language an individual masters during the language acquisition phase of intellectual development. This would generally be the language spoken in the home by the people who have raised the individual from infancy.

First wave countries

The Adult Literacy and Life Skills Survey (ALL) is an international literacy survey that was completed by participating countries in successive waves. The first wave of countries to participate in ALL were in 2003 and included Bermuda, Canada, Italy, Mexico, Norway, Switzerland and the United States. Second Wave countries to take part in ALL were Australia, New Zealand, the Netherlands, Hungary and South Korea.

Group or organisation

A group or organisation is any body with a formal structure. It may be as large as a national charity or as small as a local book club. Purely ad hoc, informal and temporary gatherings of people do not constitute an organisation.

Health literacy

The knowledge and skills required to understand and use information relating to health issues such as drugs and alcohol, disease prevention and treatment, safety and accident prevention, first aid, emergencies, and staying healthy.

Informal learning

Learning that results from daily work-related, family or leisure activities (OECD, 2006). Various informal learning activities are collected in ALLS and these activities can be analysed separately or be grouped into active and passive modes of informal learning.

Passive modes of informal learning include:

- going on guided tours such as museums, art galleries, or other locations;
- learning by being sent around an organisation to learn different aspects of that organisation;
- visiting trade fairs, professional conferences or congresses; and
- attending short lectures, seminars, workshops or special talks that were not part of a course.

Active modes of informal learning include:

- learning by watching, getting help or advice from others but not from course instructors;
- learning by yourself by trying things out, doing things for practice, trying different approaches to doing things;
- using video, television, tapes to learn but not as part of a course;
- using computers or the Internet to learn but not as part of a course; and

GLOSSARY *continued*

Informal learning <i>continued</i>	<ul style="list-style-type: none">■ reading manuals, reference books, journals or other written materials but not as part of a course.
Industry	An individual business entity is assigned to an industry based on its predominant activity. Industry is classified according to the <i>Australian and New Zealand Standard Industrial classification (ANZSIC)</i> (cat. no. 1292.0).
Labour force status	Refers to the situation of respondents in relation to the labour force at the time of the survey. Categories are: <ul style="list-style-type: none">■ employed: had a job or business, or undertook work without pay in a family business in the week prior to the survey, including being absent from a job or business they had:<ul style="list-style-type: none">■ full-time: persons who usually work 35 hours or more per week; or■ part-time: persons who usually work at least one hour, but less than 35 hours, per week.■ unemployed: not employed and actively looked for work in the four weeks prior to the survey and available to start work in the week prior to the survey.■ not in labour force: persons who were neither employed nor unemployed. They include people who are;<ul style="list-style-type: none">■ keeping house (unpaid);■ retired, voluntarily inactive, or permanently unable to work; or■ unpaid voluntary workers for charitable organisations.
Level (and Field) not determined	Level (and Field) not determined includes inadequately described responses and cases where no response was given.
Literacy related work activities	Respondents who had worked in the last 12 months were asked whether they performed any of the following tasks in their main job, and if so, how often. Read or used: <ul style="list-style-type: none">■ letters, memos or emails■ reports, articles, magazines or journals■ manuals or reference books■ directions or instructions
Main job	The job at which the respondent worked the most hours in the last 12 months. If the respondent had not worked in the last 12 months, but had worked in the last 5 years, the main job was the most recent job held within the last 5 years. In IALS, only those who worked in the last 12 months were included. By including those who have had work experience in the last 5 years but have not worked in the last 12 months, the aim is to capture recent retirees and to ascertain the potential skill match to occupation and industry of those who may be temporarily out of the labour market (such as women with young children).
Non-school qualifications	Non-school qualifications are awarded for educational attainments other than those of pre-primary, primary or secondary education. They include qualifications at the Post graduate degree level, Master degree level, Graduate diploma and Graduate certificate level, Bachelor degree level, Advanced diploma and Diploma level, and Certificates I, II, III and IV levels. Non-school qualifications may be attained concurrently with school qualifications.
Non-qualification course	A course that does not result in formal certification but is structured in content and delivery.
Not in the labour force	Persons who were not in the categories employed or unemployed, as defined.
Numeracy	The knowledge and skills required to effectively manage and respond to the mathematical demands of diverse situations.

GLOSSARY *continued*

Numeracy related work activities	<p>Respondents who had worked in the last 12 months were asked whether they performed any of the following tasks in their main job, and if so, how often:</p> <ul style="list-style-type: none">■ fills in bills, invoices, spreadsheets or budget tables;■ calculates prices, costs or budgets;■ counts or reads numbers;■ manages time or prepares timetables;■ gives or follows directions or uses maps or street directories; or■ uses statistical data.
Occupation	<p>A collection of jobs sufficiently similar in their main tasks (in terms of skill level and specialisation) to be grouped together for classification purposes. Occupation has been dual classified according to the <i>Australian and New Zealand Standard Classification of Occupations (ANZSCO)</i> and <i>Australian Standard Classification of Occupations (ASCO)</i>.</p>
Parental information	<p>Parental information is gathered to provide an indication of the foundation for skill acquisition that has been provided in the home. Essentially, the information is used as an indicator of the socioeconomic status of respondents— an important antecedent variable to skill acquisition, economic and social success. There is research to suggest that an individual's educational attainment is influenced by the educational attainment of the parents.</p>
Personal gross income	<p>Regular and recurring cash receipts including monies received from wages and salaries, government pensions and allowances, and other regular receipts such as superannuation, workers' compensation, child support, scholarships, profit or loss from own unincorporated business or partnership and property income. Gross income is the sum of the income from all these sources before income tax or the Medicare levy are deducted.</p>
Personal gross income — median	<p>Median personal gross weekly income was calculated by dividing the distribution of gross weekly reported income into two equal groups, one receiving income above and the other income below that amount.</p>
Personal gross income — decile	<p>These are groupings of 10% of the total population of Australia when ranked in ascending order according to gross personal income.</p> <p>The decile boundaries for gross personal weekly income for the 2006 ALLS population were:</p> <ul style="list-style-type: none">■ Lowest decile: Less than \$91■ Second decile: \$92 to \$204■ Third decile: \$205 to \$270■ Fourth decile: \$271 to \$403■ Fifth decile: \$404 to \$575■ Sixth decile: \$576 to \$738■ Seventh decile: \$739 to \$900■ Eighth decile: \$901 to \$1,151■ Ninth decile: \$1,152 to \$1,534■ Tenth decile: \$1,535 or more
Problem Solving	<p>Problem solving is goal-directed thinking action in situations for which no routine solution procedure is available. The understanding of the problem situation and its step-by-step transformation, based on planning and reasoning, constitute the process of problem solving.</p>
Proficiency in spoken English	<p>The self-assessed level of ability to speak English in every day situations, asked of people whose first language spoken was a language other than English or who speak a language other than English at home.</p>
Prose Literacy	<p>The knowledge and skills needed to understand and use various kinds of information from text including editorials, news stories, brochures and instruction manuals.</p>

GLOSSARY *continued*

Qualification	A course that results in formal certification, issued by a relevant approved body, in recognition that a person has achieved learning outcomes or competencies relevant to identified individual, professional, industry or community needs. Statements of attainment awarded for partial completion of a course of study at a particular level are excluded.
Socio-economic Indexes for Areas 2001 (SEIFA 2001)	<p>Socio-economic Indexes for Areas 2001 (SEIFA 2001) are used in the assessment of the welfare of Australian communities. The ABS has developed four indexes to allow ranking of regions/areas, providing a method of determining the level of social and economic well-being in that region.</p> <p>The two indexes available on 2006 ALLS Expanded CURF are:</p> <ul style="list-style-type: none"> ■ Index of Relative Socio-economic Disadvantage – This index focuses on low income earners, relatively lower educational attainment and high unemployment and is a general measure of disadvantage only. A high value reflects a lack of disadvantage rather than high advantage and occurs when the area has few families of low income and few people with little training and in unskilled occupations. ■ Index of Education and Occupation – This index only includes variables measuring the educational and occupational aspects of advantage/disadvantage. A high value indicates an area with high concentrations of people with higher educational qualifications or undergoing further education, with a high percentage of people employed in skilled occupations. <p>See <i>Information Paper: Census of Population and Housing – Socio-economic Indexes for Areas, Australia</i> (cat. no. 2039.0) for details.</p>
Self-assessed health status	The selected person's general assessment of their own health against a five point scale consisting of excellent, very good, good, fair and poor.
Self perception of skills	The selected person's self-perception of their own literacy skills, given against a four point scale from excellent through to poor (for example a respondent would be asked to self-rate their reading and writing skills).
Social capital	<p>Social capital is broadly defined as 'Networks, together with shared norms, values and understandings which facilitate cooperation within and among groups'. (OECD, 2001)</p> <p>Social capital variables collected in ALLS include participation in groups or organisations, unpaid volunteer work, life satisfaction and self assessed health and emotional condition.</p>
Social marital status	A person's relationship status in terms of whether she or he forms a couple relationship with another person.
State or territory	Classified according to the <i>Australian Standard Geographical Classification (ASGC)</i> (cat. no. 1216.0).
Studying full-time	Enrolment in study full-time as reported by the respondent.
Studying part-time	Enrolment in study part-time as reported by the respondent.
Unemployed	Persons aged 15-74 who were not employed (as defined), had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week, and were available for work in the reference week if they had found a job.
Unpaid volunteer	A person who provides unpaid help willingly undertaken in the form of time, service or skills, to an organisation or group.
Worked in the last 12 months	Had at least one employer or own business in the last 12 months.
Years of formal education	Refers to a person's number of completed academic years in a formal studies at the primary, secondary or further education level. Part time study is converted to its full-time equivalent.

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